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July 16, 2019

VIA ELECTRONIC FILING

Mr. Adam Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

In re: Petition by Duke Energy Florida, LLC to Approve Transaction with Accelerated Decommissioning Partners, LLC for Accelerated Decommissioning Services at the CR3 Facility, etc. (the "Petition"); Docket No. 20190140-EI.

Dear Mr. Teitzman:

On behalf of Duke Energy Florida, LLC ("DEF"), please find the enclosed for electronic filing in the above-referenced proceeding.

- DEF's Notice of Filing Exhibits, Attachments, and Schedule to Exhibit No.__(TH-1), together with *redacted* copies of the Exhibits, Attachments, and Schedule made part of Exhibit No.__(TH-1) to the Direct Testimony of Terry Hobbs.

Please note that the Exhibits, Attachments, and Schedule to Exhibit No.__(TH-1) were not included with the July 10th filing of the Petition, as certain portions of same contain confidential information subject to DEF's Amended Request for Confidential Classification filed on July 16, 2019.

Thank you for your assistance in this matter. Please feel free to call me at (813) 227-8114 should you have any questions concerning this filing.

Respectfully,

Shutts & Bowen LLP

Daniel Hernandez



Enclosures (as noted)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by Duke Energy Florida, LLC to Approve Transaction with Accelerated Decommissioning Partners, LLC for Accelerated Decommissioning Services at the CR3 Facility, Transfer of Title to Spent Fuel, and Assumption of Operations of the CR3 Facility Pursuant to the NRC License, and Request for Waiver From Future Application of Rule 25-6.04365, F.A.C. for Nuclear Decommissioning Study

DOCKET NO.: 20190140-EI

Submitted for Filing: July 16, 2019

DUKE ENERGY FLORIDA, LLC'S NOTICE OF FILING EXHIBITS, ATTACHMENTS, AND SCHEDULE TO EXHIBIT NO. (TH-1)

Duke Energy Florida, LLC, ("DEF"), by and through undersigned counsel, hereby files the Exhibits, Attachments, and Schedule made part of Exhibit No. ___(TH-1) to the Direct Testimony of Terry Hobbs, which was previously filed with DEF's Petition on July 10, 2019.

DATED this 16th day of July, 2019.

Respectfully submitted,



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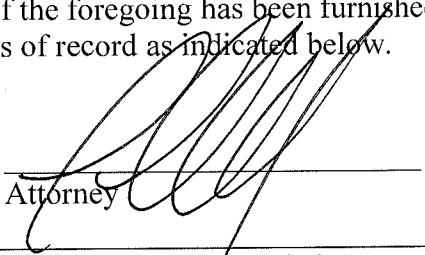
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Duke Energy Florida, LLC
Docket No.: 20190140-EI
CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail this 16th day of July, 2019 to all parties of record as indicated below.

Attorney 

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EXHIBIT A

FORM OF SPENT NUCLEAR FUEL PURCHASE AND SALE AGREEMENT

SPENT NUCLEAR FUEL PURCHASE AND SALE AGREEMENT

BY AND BETWEEN

DUKE ENERGY FLORIDA, LLC, as SELLER

AND

ADP SF1, LLC, as BUYER

Dated as of [•]

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SPENT NUCLEAR FUEL PURCHASE AND SALE AGREEMENT

THIS SPENT NUCLEAR FUEL PURCHASE AND SALE AGREEMENT dated as of [•], is entered into by and between Duke Energy Florida, LLC, a Florida limited liability company (“Seller”), and ADP SF1, LLC, a Delaware limited liability company (“Buyer”). Seller and Buyer are referred to individually herein from time to time as a “Party,” and collectively as the “Parties”.

RECITALS

WHEREAS, Seller owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site.

WHEREAS, the Crystal River 3 nuclear power station has been permanently shutdown and is currently in SAFSTOR.

WHEREAS, Seller, Buyer and an Affiliate of Buyer, ADP CR3, LLC, a Delaware limited liability company (“Contractor”), have entered into the Decommissioning Services Agreement dated as of May 29, 2019 (the “Decommissioning Agreement”), whereby Seller has engaged Contractor and Buyer to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described therein.

WHEREAS, in connection with the transactions as contemplated under the Decommissioning Agreement, Seller desires to sell to Buyer, and Buyer desires to purchase and acquire, the Spent Nuclear Fuel and HLW from the CR-3 Facility stored on the ISFSI, or otherwise located at the CR-3 Facility and to be stored on the ISFSI, upon the terms and conditions set forth in this Agreement. Capitalized terms used and not defined in these recitals are defined below.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, Seller and Buyer agree as follows:

ARTICLE 1 DEFINITIONS

1.1 Definitions. As used in this Agreement, the following terms have the meanings specified in this Section 1.1.

“Affiliate” means, with respect to a specified Person, a Person that, directly or indirectly, through one or more intermediaries, now or hereafter, owns or controls, is owned or controlled by, or is under common ownership or control with a Party, where “control” (including the terms “controlled by” and “under common control with”) means (i) at least a fifty percent (50%) ownership interest, or (ii) the possession, directly or indirectly, of the power to direct or cause

the direction of the management or policies of a Person, whether through the ownership of stock or other securities, as trustee or executor, by contract or credit arrangement or otherwise.

“Agreed Amount” means, as of the Closing Date, an amount of cash in the IOI Decommissioning Subaccount that is equal to Five Hundred Forty Million Dollars (\$540,000,000), [REDACTED]

“Agreement” means this Spent Nuclear Fuel Purchase and Sale Agreement, together with the Schedules attached hereto, each of which is incorporated herein in its entirety by this reference, as the same may be amended, supplemented or modified from time to time in accordance with the terms hereof.

“Amended and Restated LLC Agreement” means the amended and restated limited liability company agreement governing Contractor in accordance with the Laws of the State of Delaware, in the form attached to the Decommissioning Agreement as Exhibit D.

“Amended and Restated NDF Agreement” means the Amended and Restated Nuclear Decommissioning Trust Agreement dated May 1, 2008 by and between the Trustee and Company, as amended as of November 13, 2013, January 29, 2014 and December 31, 2015, and following the Closing, as amended by the Fourth Amendment to Amended and Restated NDF Agreement.

“Ancillary Agreements” means the Parent Guaranties, the Pledge Agreement, the Parent Support Agreements, the Fourth Amendment to Amended and Restated NDF Agreement, the Contractor’s Provisional Trust Agreement, [REDACTED] the ISFSI Decommissioning Trust Agreement, the Amended and Restated LLC Agreement, the Assignment and Assumption Agreement, the SNF Services Agreement, and the Bill of Sale .

“ANI” means American Nuclear Insurers, or any successors thereto.

“Assets” has the meaning set forth in Section 2.1.

“Assignment and Assumption Agreement” means the Assignment and Assumption Agreement between Seller and Buyer in the form attached to the Decommissioning Agreement as Exhibit J, whereby Seller shall assign and Buyer shall assume the Assets and the Assumed Liabilities, as applicable.

“Assumed Liabilities” has the meaning set forth in Section 2.3.

“Atomic Energy Act” means the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2011 et seq.).

“Bill of Sale” means the Bill of Sale, in the form attached to the Decommissioning Agreement as Appendix K, whereby Seller shall transfer and Buyer shall acquire certain of the Assets, as applicable.

“Business Day” any day other than Saturdays; Sundays; New Year's Day; Birthday of Dr. Martin Luther King, Jr.; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; Friday after Thanksgiving and Christmas Day.

“Buyer” has the meaning set forth in the preamble.

“Buyer Material Adverse Effect” means: (a) any event, occurrence, fact, condition, change or changes in, or effect on, Buyer or Contractor that individually or cumulatively are or could be materially adverse to the operation, condition (financial or otherwise) of Buyer and Contractor, taken as a whole or (b) a material adverse effect on the ability of Buyer or Contractor to perform its obligations hereunder or under the Ancillary Agreements, as applicable. Notwithstanding the foregoing, a Buyer Material Adverse Effect shall not include (i) any change in any Law generally applicable to similarly situated Persons; or (ii) any change in the application or enforcement of any Law by any Governmental Authority, with respect to the NRC-Licensed Site or to similarly situated Persons, unless in each case such change in Law or application or enforcement of Law prohibits or hinders consummation of the transactions or work contemplated by this Agreement or adversely affects Buyer and Contractor in any manner or degree significantly different from or disproportionate compared to the effects of such changes on the industry as a whole.

“Byproduct Material” means any radioactive material (except Special Nuclear Material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing Special Nuclear Material.

“Closing” means the consummation of the respective obligations of the Parties contemplated by Article 2, which shall be effective for all purposes as of 12:01 a.m. on the Closing Date.

“Closing Date” means the date on which the Closing occurs.

“Code” means the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder.

“Company's Required Regulatory Approvals” means the regulatory approvals required by Company as a condition to the Closing, as identified in Attachment 17 to the Decommissioning Agreement.

“Contractor” has the meaning set forth in the recitals.

“Contractor's Provisional Trust Agreement” means the trust agreement, substantially in the form set forth in Exhibit G to the Decommissioning Agreement, by and between Contractor and a qualified trustee governing Contractor's Provisional Trust Fund.

“Contractor's Provisional Trust Fund” has the meaning set forth in the Decommissioning Agreement.

“Contractor’s Required Regulatory Approvals” means the regulatory approvals required by Contractor as a condition to the Closing, as identified in Attachment 17 to the Decommissioning Agreement.

“CR-3 Facility” means the pressurized reactor power plant and all of the ancillary facilities, equipment, supplies, structures and buildings, including the ISFSI and underground structures, that form the Crystal River nuclear power plant, commonly known as Crystal River Unit 3, located on the Gulf of Mexico in Citrus County, Florida, and including the real property underlying the ISFSI Site and the other portions of the Crystal River Site on which the CR-3 Facility is located, but in any event not including the Excluded Facilities. The CR-3 Facility is depicted by the green areas set forth on page 27 of Attachment 1 to the Decommissioning Agreement.

“Crystal River Decommissioning Reserve Subaccount” has the meaning set forth in the Decommissioning Agreement.

“Crystal River Site” means the area commonly known as the “Crystal River Energy Complex” that contains the CR-3 Facility, the NRC-Licensed Site, the ISFSI, and the Excluded Facilities, as more particularly described in Attachment 2 to the Decommissioning Agreement.

“Decommission” and “Decommissioning” means (a) the dismantlement and removal of the structures, and any reduction or removal of radioactivity, at the CR-3 Facility and the NRC-Licensed Site to a level that permits the release of all or any specified portion of the NRC-Licensed Site consistent with the radiological criteria for license termination specified by the NRC in 10 C.F.R. § 20.1402 for unrestricted use; (b) all other activities necessary for the retirement, dismantlement, decontamination or storage of the CR-3 Facility and NRC-Licensed Site in compliance with all applicable Nuclear Laws and Environmental Laws, including the applicable requirements of the Atomic Energy Act and the NRC’s rules, regulations, orders and pronouncements thereunder; (c) operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, the packaging of the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site; (d) restoration of the NRC-Licensed Site in accordance with applicable Laws; and (e) any planning and administration activities incidental thereto.

“Decommissioning Agreement” has the meaning set forth in the recitals.

“Department of Energy” or “DOE” means the United States Department of Energy and any successor agency thereto.

“DOE Decontamination and Decommissioning Fees” means all fees related to the Department of Energy’s Special Assessment of utilities for the Uranium Enrichment Decontamination and Decommissioning Funds pursuant to Sections 1801, 1802 and 1803 of the Atomic Energy Act and the Department of Energy’s implementing regulations at 10 C.F.R. Part 766, as those statutes and regulations exist at the time of execution of this Agreement, applicable to separative work units purchased from the Department of Energy in order to decontaminate and decommission the Department of Energy’s gaseous diffusion enrichment facilities.

[REDACTED]

“Encumbrances” means any charges, claims, mortgages, pledges, liens, security interests, equitable interests, options, conditional and installment sale agreements, conservation easement, deed restrictions, easement, encroachment, right-of-ways, right of first refusal or encumbrances and charges of any kind.

“Energy Reorganization Act” means the Energy Reorganization Act of 1974 (42 U.S.C. Section 5801 et seq.), as amended.

“Environment” means all soil, real property, air, water (including surface waters, streams, ponds, drainage basins and wetlands), groundwater, water body sediments, drinking water supply, stream sediments or land, including land surface or subsurface strata, including all fish, plant, wildlife, and other biota and any other environmental medium or natural resource.

“Environmental Laws” means all Laws regarding pollution or protection of the Environment or human health (as it relates to exposure to Hazardous Substances), the conservation and management of natural resources and wildlife, including Laws relating to the manufacture, processing, distribution, use, treatment, storage, release, transport, disposal or handling of Hazardous Substances, including the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, *et seq.*; the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*; the Toxic Substances Control Act, 15 U.S.C. 2601, *et seq.*; the Clean Air Act, 42 U.S.C. 7401, *et seq.*; the Federal Water Pollution Control Act, 33 U.S.C. 1251 *et seq.*; and the Emergency Planning & Community Right-to-Know Act, 42 U.S.C. 11001 *et seq.*, but not including Nuclear Laws.

“Excluded Assets” has the meanings set forth in Section 2.2.

“Excluded Facilities” means the facilities on the Crystal River Site (and the real property upon which the same are located) that are not related to the CR-3 Facility, including the switchyard, operating and non-operating fossil fuel-fired (coal, natural gas) power generation facilities cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling docks, railroad, and the other buildings or facilities that are not to be Decommissioned hereunder as identified in Attachment 1 to the Decommissioning Agreement.

“Excluded Liabilities” has the meaning set forth in Section 2.4.

“Federal Trade Commission Act” means the Federal Trade Commission Act of 1914 (15 U.S.C. Section 41 et seq.), as amended.

“First Amendment to DSA” means the amendment to the Decommissioning Agreement to be entered into by Buyer and Seller on or before the Closing Date, whereby the Parties agree to amend the Decommissioning Agreement by attaching the mutually agreed exhibits and attachments to be finalized between the Contract Date and the Closing Date, as further described in the Decommissioning Agreement.

“Fourth Amendment to Amended and Restated NDF Agreement” means the Fourth Amendment to the Amended and Restated NDF Agreement, in the form attached to the Decommissioning Agreement as Exhibit F.

“GAAP” means accounting principles generally accepted in the U.S., consistently applied.

“Governmental Authority” means any federal, state, local provincial, foreign, international or other governmental, regulatory or administrative agency, taxing authority, commission, department, board, or other government subdivision, court or tribunal.

“Greater Than Class C Waste” means radioactive waste that contains radionuclide concentrations exceeding the values in Table 1 or Table 2 of 10 C.F.R. § 61.55, and therefore is currently not generally acceptable for disposal at existing (near surface) low level radioactive waste disposal facilities.

“Hazardous Substances” means: (a) any petroleum (or any fraction thereof), asbestos, asbestos-containing material, and urea formaldehyde foam insulation and transformers or other equipment that contains polychlorinated biphenyl; (b) any chemicals, materials or substances defined as or included in the definition of “hazardous substances”, “hazardous wastes”, “hazardous materials”, “hazardous constituents”, “restricted hazardous materials”, “extremely hazardous substances”, “toxic substances”, “contaminants”, “pollutants”, “toxic pollutants”, “hazardous air pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law; and (c) any other chemical, material, waste or substance that can form the basis of any Liability under any applicable Environmental Law; except that, in each case and notwithstanding any other provision of this Agreement, Hazardous Substances shall not include Nuclear Material.

“Health and Safety Laws” means any Laws pertaining to safety and health in the workplace, including the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., and the Toxic Substances Control Act, 15 U.S.C. 2601, et seq.

“High Level Waste Repository” means a facility which is designed, constructed and operated by or on behalf of the Department of Energy for the storage and disposal of Spent Nuclear Fuel in accordance with the requirements set forth in the Nuclear Waste Policy Act of 1982, as amended.

“High Level Waste” or “HLW” means high-level radioactive waste, including (a) the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and (b) other highly radioactive material that the NRC, consistent with existing Law, determines by rule requires permanent isolation, including Greater Than Class C Waste.

“IOI Decommissioning Subaccount” means a formally separate and segregated subaccount within the NDF, the assets of which are not commingled with any of the other assets of the NDF, which is created and maintained solely for the purpose of funding the compensation to be paid to Contractor for Decommissioning the CR-3 Facility (not including costs for

operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site) and achieving the ISFSI-Only Interim End-State Conditions (as defined in the Decommissioning Agreement”).

“ISFSI” means the existing dry spent fuel storage installation on the Crystal River Site where the Spent Nuclear Fuel and HLW from the CR-3 Facility is located and stored, and the ancillary facilities related thereto, but excluding the Spent Nuclear Fuel and High Level Waste stored thereon, and excluding the storage canisters that will be shipped together with the Spent Nuclear Fuel and the HLW when it is removed from the ISFSI and the NRC-Licensed Site.

“ISFSI Assets” has the meaning set forth in Section 2.1.2.

“ISFSI Decommissioning Trust” means a nuclear decommissioning trust fund established by Buyer pursuant to the ISFSI Decommissioning Trust Agreement in compliance with 10 CFR 72.30 in order to hold funds dedicated to the Decommissioning of the ISFSI.

“ISFSI Decommissioning Trust Agreement” means the trust agreement, substantially in the form set forth in Exhibit M to the Decommissioning Agreement, by and between Buyer and a qualified trustee governing the ISFSI Decommissioning Trust.

“Knowledge” means: (a) with respect to Buyer, the actual knowledge of the officers and employees of Buyer listed on Attachment 6 to the Decommissioning Agreement; and (b) with respect to Seller, the actual knowledge of the officers and employees of Company listed on Attachment 6 to the Decommissioning Agreement, but without independent investigation or inquiry by or on behalf of Company or any such officer or employee.

“Law” or “Laws” means all laws, rules, regulations, codes, statutes, ordinances, decrees, treaties, or administrative orders of any Governmental Authority including administrative and judicial interpretations thereof, including Environmental Laws, Health and Safety Laws and Nuclear Laws, and common law.

“Liability” or “Liabilities” means any liability or obligation (whether known or unknown, whether asserted or not asserted, whether absolute or contingent, whether accrued or not accrued, whether liquidated or unliquidated, and whether due or to become due).

“Licenses” has the meaning set forth in Section 4.7.

“Low Level Waste” means radioactive material that (a) is neither Spent Nuclear Fuel nor HLW; and (b) any other substance that the NRC, consistent with existing Law and in accordance with clause (a), classifies as low-level radioactive waste.

“NDF” means the qualified trust fund meeting the requirements of Code Section 468A and Treas. Reg. § 1.468A-5 and the non-qualified trust fund that is maintained by Company pursuant to and in accordance with the Amended and Restated NDF Agreement for purposes of Decommissioning the CR-3 Facility and the NRC-Licensed Site.

“NEIL” means Nuclear Electric Insurance Limited, or any successor or replacement thereto.

“NRC” means the United States Nuclear Regulatory Commission and any successor agency thereto.

“NRC License” means the NRC Operating License No DPR-72, Docket No. 50-302 for the CR-3 Facility and the NRC-Licensed Site, and all amendments thereto.

“NRC-Licensed Site” means all of the real property subject to the NRC License, as more particularly described in Attachment 5 to the Decommissioning Agreement. Any reference to the NRC-Licensed Site shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at the NRC-Licensed Site and any references to items “at the NRC-Licensed Site” shall include all items “at, in, on, upon, over, across, under, and within” the NRC-Licensed Site.

“Nuclear Insurance Policies” means all nuclear insurance policies carried by or for the benefit of Company with respect to the ownership, operation or maintenance of the CR-3 Facility and the NRC-Licensed Site, including all nuclear liability and nuclear property damage policies in respect thereof, including all policies issued or administered by ANI or NEIL.

“Nuclear Laws” means all Laws, other than Environmental Laws, relating to the regulation of nuclear power plants, Source Material, Byproduct Material and Special Nuclear Material; the regulation of Low Level Waste, HLW and Spent Nuclear Fuel; the transportation and storage of Nuclear Material; the regulation of Safeguards Information (as defined in 10 C.F.R. 2.4); the enrichment of uranium; the disposal and storage of Spent Nuclear Fuel; contracts for and payments into the Nuclear Waste Fund; and the antitrust Laws and the Federal Trade Commission Act, as applicable to specified activities or proposed activities of certain licensees of commercial nuclear reactors. Nuclear Laws include the Atomic Energy Act; the Price-Anderson Act; the Energy Reorganization Act of 1974 (42 U.S.C. Section 5801 et seq.); Convention on the Physical Protection of Nuclear Material Implementation Act of 1982 (Public Law 97 -351; 96 Stat. 1663); the Foreign Assistance Act of 1961 (22 U.S.C. Section 2429 et seq.); the Nuclear Non-Proliferation Act of 1978 (22 U.S.C. Section 3201); the Low-Level Radioactive Waste Policy Act (42 U.S.C. Section 2021b et seq.); the Nuclear Waste Policy Act (42 U.S.C. Section 10101 et seq. as amended); the Low-Level Radioactive Waste Policy Amendments Act of 1985 (42 U.S.C. Section 2021d, 471); the Energy Policy Act of 1992 (4 U.S.C. Section 13201 et seq.); the provisions of 10 C.F.R. Section 73.21, and any state or local Laws, other than Environmental Laws, analogous to the foregoing.

“Nuclear Material” means Source Material, Byproduct Material, Low Level Waste, HLW, and Special Nuclear Material, including Spent Nuclear Fuel.

“Nuclear Waste Fund” means the fund established by Section 302(c) of the Nuclear Waste Policy Act in which the Spent Nuclear Fuel fees to be used for the design, construction and operation of a High Level Waste Repository and other activities related to the storage and disposal of Spent Nuclear Fuel is deposited.

“Parent Guarantors” means each of NorthStar Group Services, Inc., a Delaware corporation, and Orano USA LLC, a Delaware limited liability company.

“Parent Guaranty” means a guaranty in the form attached to the Decommissioning Agreement as Exhibit B issued by each Parent Guarantor in favor of Company, pursuant to which such Parent Guarantor, severally (and not jointly) with the other Parent Guarantor and in accordance with the terms and conditions set forth therein, guarantees the payment and performance of the obligations of Contractor under the Decommissioning Agreement and the Ancillary Agreements to which Contractor is a party, and the obligations of Buyer under this Agreement and the Ancillary Agreements to which Buyer is a party.

“Parent Support Agreement” means a Support Agreement in the form attached to the Decommissioning Agreement as Exhibit H-1 and Exhibit H-2 by and among each Parent Guarantor, Contractor and Buyer, pursuant to which such Parent Guarantor agrees to provide up to a specified amount of funding to Contractor and Buyer totaling One Hundred Forty Million Dollars (\$140,000,000), in the aggregate, to perform their obligations under the Decommissioning Agreement and complete the Decommissioning of the CR-3 Facility, including the ISFSI.

“Party” or “Parties” has the meaning set forth in the preamble.

“Permits” means the permits, licenses, registrations, certificates, franchises and other governmental authorizations, consents and approvals used in, or necessary for Seller’s maintenance, ownership, use, or possession of, the CR-3 Facility or activities on the NRC-Licensed Site as presently conducted or as required by Law.

“Permitted Encumbrances” means: (i) statutory liens for Taxes (other than income Taxes) or other governmental charges or assessments not yet due or delinquent or the validity of which are being contested in good faith by appropriate proceedings; (ii) mechanics’, materialmen’s, carriers’, workers’, repairers’ and other similar liens arising or incurred in the ordinary course of business relating to obligations as to which there is no default on the part of Seller or the validity of which are being contested in good faith; (iii) Encumbrances arising from restrictions contained in Permits; and (iv) those Encumbrances arising from restrictions contained in the Real Property Agreements listed in Attachment 3 to the Decommissioning Agreement.

“Person” means any individual, partnership, limited liability company, joint venture, corporation, trust, unincorporated organization, association, or Governmental Authority.

“Pledge Agreement” means the Pledge Agreement to be entered into by Company and Contractor’s sole member, Accelerated Decommissioning Partners, LLC, whereby Accelerated Decommissioning Partners, LLC will pledge its equity interest in Contractor to Company as collateral for Contractor’s obligations hereunder, in the form attached to the Decommissioning Agreement as Exhibit E.

“Price-Anderson Act” means Section 170 of the Atomic Energy Act, as amended, and related provisions of Section 11 of the Atomic Energy Act.

“Provisional IOI Account” has the meaning set forth in the Decommissioning Agreement.

“Representatives” of a Party or its Affiliates means such Party’s and such Affiliates’ respective directors, managers, officers, employees, agents, partners, advisors (including

accountants, legal counsel, environmental consultants, and financial advisors) and other authorized representatives, but in no event shall Representatives of Seller include Buyer or any of its Affiliates, notwithstanding any designation of Contractor as an agent of Seller pursuant to the Decommissioning Agreement.

“Seller” has the meaning set forth in the preamble.

“Seller Material Adverse Effect” means: (a) any change or changes in, or effect on, the Assets, the CR-3 Facility or the NRC-Licensed Site that individually or cumulatively are or reasonably could: (i) materially impair Buyer’s intended ownership, possession, or use of the Assets; or (ii) materially adversely affect the intended occupancy, possession or use of the CR-3 Facility or the NRC-Licensed Site for Decommissioning by Buyer; or (b) a material adverse effect on the ability of Seller to perform its obligations hereunder or under the Ancillary Agreements. Notwithstanding the foregoing, a Seller Material Adverse Effect shall not include (A) any change in any Law generally applicable to similarly situated Persons; (B) any change in the application or enforcement of any Law, by any Governmental Authority, with respect to the CR-3 Facility or the NRC-Licensed Site or to similarly situated Persons, unless in each case such change in application or enforcement prohibits consummation of the transactions contemplated by this Agreement or the Decommissioning Agreement, or adversely affects Seller in any manner or degree significantly different from or disproportionate compared to the effects of such changes on the industry as a whole; (C) any changes resulting from or associated with acts of war or terrorism or changes imposed by a Governmental Authority associated with additional security to address concerns of terrorism; provided, however, that such changes do not affect the Assets, the CR-3 Facility or the NRC-Licensed Site or the Parties in any manner or degree significantly different from or disproportionate compared to the effects of such changes on the industry as a whole; (D) effects of weather, meteorological events or other natural disasters or natural occurrences beyond the control of Seller; (E) changes or adverse conditions in the financial, banking or securities markets, including those relating to debt financing and, in each case, including any disruption thereof and any decline in the price of any security or any market index; (F) any change in accounting requirements or generally acceptable accounting principles; (G) any labor strike, request for representation, organizing campaign, work stoppage, slowdown or other labor dispute; or (H) any loss, claim, occurrence, change or effect that would otherwise be a Seller Material Adverse Effect that is cured or otherwise eliminated, or the effects of which are no longer materially adverse, prior to the Closing Date.

“Source Material” means: (a) uranium or thorium or any combination thereof, in any physical or chemical form, or (b) ores which contain by weight one-twentieth of one percent (0.05%) or more of (i) uranium, (ii) thorium, or (iii) any combination thereof. Source Material does not include Special Nuclear Material.

“Special Nuclear Material” means (a) plutonium, uranium-233, uranium enriched in the isotope-233 or in the isotope-235, and any other material that the NRC determines to be “Special Nuclear Material;” and (b) any material artificially enriched by any of the materials or isotopes described in clause (a). Special Nuclear Material includes the Spent Nuclear Fuel; provided, however, that Special Nuclear Material does not include Source Material.

“Spent Fuel Disposal Contract” means the U.S. Department of Energy Contract No. DE-CR01-83NE44382 Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste dated as of June 30, 1983, by and between the DOE and Florida Power Corporation (which, by virtue of intervening corporate reorganizations, is now known as Duke Energy Florida, LLC), for the disposal of Spent Nuclear Fuel and HLW from the CR-3 Facility.

“Spent Nuclear Fuel” means all nuclear fuel located at the ISFSI that has been permanently withdrawn from the nuclear reactor in the CR-3 Facility following irradiation, and has not been chemically separated into its constituent elements by reprocessing.

“Tax” or “Taxes” means, all taxes, charges, fees, levies, penalties or other assessments imposed by any federal, state, local, provincial or foreign taxing authority, including income, gross receipts, excise, real or personal property, sales, transfer, customs, duties, franchise, payroll, withholding, social security, receipts, license, stamp, occupation, employment, or other taxes, including any interest, penalties or additions attributable thereto, and any payments to any state, local, provincial or foreign taxing authorities in lieu of any such taxes, charges, fees, levies or assessments.

“Transfer Taxes” means any transfer, sales, use, value added, stamp, documentary, recording, registration, conveyance, stock transfer, intangible property transfer, personal property transfer, gross receipts, registration, duty, securities transactions or fees, Taxes or governmental charges of a similar nature (together with any interest or penalty, addition to Tax or additional amount imposed) as levied by any Governmental Authority in connection with the transfer of title to the Assets to Buyer and the assumption by Buyer of the Assumed Liabilities, including any payments made in lieu of any such Taxes or governmental charges which become payable in connection with the transactions contemplated by this Agreement.

1.2 Certain Interpretive Matters. Unless otherwise required by the context in which any term appears:

(i) The singular shall include the plural, the plural shall include the singular, and the masculine shall include the feminine and neuter.

(ii) References to “Articles,” “Sections,” “Schedules” or “Exhibits” shall be to articles, sections, schedules or exhibits of or to this Agreement, and references to “paragraphs” or “clauses” shall be to separate paragraphs or clauses of the section or subsection in which the reference occurs.

(iii) The words “herein,” “hereof” and “hereunder” shall refer to this Agreement as a whole and not to any particular section or subsection, of this Agreement; and the words “include,” “includes” or “including” shall mean “including, but not limited to” or “including, without limitation.” The word “threatened” refers to threats made in writing.

(iv) The term “day” shall mean a calendar day, commencing at 12:01 a.m. Eastern time. The term “week” shall mean any seven consecutive day period, and the term “month” shall mean a calendar month; provided, however, that when a period measured in months commences on a date other than the first day of a month, the period shall run from the date on which it starts to the corresponding date in the next month and, as appropriate, to

succeeding months thereafter. Whenever a payment is to be made by a particular date and the date in question falls on a day which is not a Business Day, the payment shall be made on the next succeeding Business Day; provided, however, that all calculations shall be made regardless of whether any given day is a Business Day and whether or not any given period ends on a Business Day.

(v) All references to a particular entity shall include such entity's permitted successors and permitted assigns unless otherwise specifically provided herein.

(vi) All references herein to any Law or to any contract or other agreement shall be to such Law, contract or other agreement as amended, supplemented or modified from time to time unless otherwise specifically provided herein.

1.2.1 The titles of the Articles and Sections hereof and Exhibits and Schedules hereto have been inserted as a matter of convenience of reference only, and shall not control or affect the meaning or construction of any of the terms or provisions hereof.

1.2.2 This Agreement was negotiated and prepared by the Parties with advice of counsel to the extent deemed necessary by each Party; the Parties have agreed to the wording of this Agreement; and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this Agreement or any part hereof.

1.2.3 The Exhibits hereto are incorporated in and are intended to be a part of this Agreement; provided, however, that in the event of a conflict between the terms of any Exhibit and the terms of this Agreement, the terms of this Agreement shall take precedence prior to the Closing, and the terms of the Exhibits shall take precedence from and after the Closing.

ARTICLE 2 PURCHASE AND SALE

2.1 Assets. Upon the terms and subject to the satisfaction of the conditions contained in this Agreement, on the Closing Date, Seller will deliver to Buyer one or more Bills of Sale and Assignment and Assumption Agreements, as applicable, whereby Seller will sell, assign, convey, transfer and deliver to Buyer, and Buyer will acquire from Seller, free and clear of all Encumbrances (except for Permitted Encumbrances), all of Seller's right, title and interest in and to the following, wherever located (collectively, the "Assets"):

2.1.1 Seller's interest and title in (a) the Spent Nuclear Fuel and any HLW at the CR-3 Facility, including the Greater Than Class C Waste as currently stored on the ISFSI and as otherwise located at the CR-3 Facility and to be stored on the ISFSI during the Decommissioning of the CR-3 Facility; and (b) the storage canisters in which the Spent Nuclear Fuel and HLW is stored that will be shipped together with the Spent Nuclear Fuel and the HLW when it is removed from the ISFSI and the NRC-Licensed Site;

2.1.2 the tangible physical property that comprises the ISFSI, including the storage modules, foundations, security operations center and associated systems and equipment, fencing, lighting and security cameras, all contained within and including the ISFSI vehicle

barrier system (collectively, the “ISFSI Assets”), but in any event not including any firearms or interests in real property; and

2.1.3 the Spent Fuel Disposal Contract and claims thereunder with respect to any period beginning on or after the Closing Date, but not including claims thereunder that are Excluded Assets.

2.2 Excluded Assets. Notwithstanding anything to the contrary in this Agreement, Seller shall not sell, transfer or assign, and Buyer shall not acquire any right, title or interest in or to any assets of Seller other than the Assets (the “Excluded Assets”), including any real property interests or any part of the CR-3 Facility or the ISFSI, except as specifically described as part of the Assets, including:

2.2.1 any and all claims under the Spent Fuel Disposal Contract for any period ending prior to the Closing Date;

2.2.2 the ANI nuclear liability insurance policy any and all premium refunds or distributions or continuity credits that are made or issued by ANI before or after the Closing Date with respect to any period prior to or after the Closing Date under the ANI nuclear liability insurance policy relating to the CR-3 Facility; and

2.2.3 the NEIL property damage insurance policies relating to the CR-3 Facility and any and all premium refunds or distributions received by Company as a NEIL member with respect to any period prior to or after the Closing Date.

2.3 Assumed Liabilities and Obligations. Upon the terms and subject to the satisfaction of the conditions contained in this Agreement, on the Closing Date, Buyer shall deliver to Seller the Assignment and Assumption Agreement pursuant to which Buyer shall assume and agree to pay, perform and discharge when due, all of the Liabilities of Seller that relate to the Assets, as follows (collectively, the “Assumed Liabilities”):

2.3.1 all Liabilities for any Taxes that may be imposed by any Governmental Authority on the ownership, sale, possession, lease, or use of the Assets on or after the Closing Date or that relate to or arise from the Assets with respect to taxable periods (or portions thereof) beginning on or after the Closing Date, including fifty percent (50%) of any Transfer Taxes;

2.3.2 all Liabilities related to or arising from the Spent Nuclear Fuel, the HLW or the storage canisters that are included in the Assets, whether arising before or after the Closing;

2.3.3 all Liabilities related to or arising from the ISFSI Assets;

2.3.4 all Liabilities under the Spent Fuel Disposal Contract, whether arising before or after the Closing, other than any such Liabilities that are Excluded Liabilities;

2.3.5 all Liabilities related to or arising from the operation, maintenance and Decommissioning of the ISFSI, arising from and after the Closing;

2.3.6 from the Closing Date until the date on which the last of the ISFSI Only Interim End-State Conditions are achieved, all Liabilities for the insurance premiums due for the NEIL property damage insurance policy relating to the CR-3 Facility attributable for the ISFSI (based on the insurance premium for coverage of the ISFSI as shown on the applicable NEIL endorsement), and from and after the date on which the last of the ISFSI Only Interim End-State Conditions are achieved until the date on which the last of the End-State Conditions are achieved, all Liabilities to pay [REDACTED] of the insurance premiums due for the ANI nuclear liability insurance policy and NEIL property damage insurance policy relating to the CR-3 Facility;

2.3.7 any Liabilities of Buyer to the extent arising from the execution delivery or performance of this Agreement and the transactions contemplated hereby; and

2.3.8 all other Liabilities related to the Assets expressly allocated to or assumed by Buyer in this Agreement, pursuant to the Decommissioning Agreement or pursuant to any of the Ancillary Agreements.

2.4 Excluded Liabilities. Notwithstanding anything to the contrary in this Agreement, nothing in this Agreement shall be construed to impose on Buyer, and Buyer shall not assume or be obligated to pay, perform or otherwise discharge, the following Liabilities of Seller (the “Excluded Liabilities”):

2.4.1 any Liabilities in respect of any Excluded Assets;

2.4.2 any Liabilities for Taxes attributable to the ownership, possession, operation, maintenance or use of the ISFSI Assets, the CR-3 Spent Nuclear Fuel and HLW for taxable periods, or portions thereof, ending prior to the Closing Date, including fifty percent (50%) of any Transfer Taxes;

2.4.3 any Liabilities for Taxes attributable to the ownership, possession, operation, maintenance or use of the CR-3 Facility (excluding the ISFSI Assets) or the Crystal River Site, including the NRC-Licensed Site but excluding the ISFSI Assets, and income Taxes imposed on Seller arising from the transactions contemplated by this Agreement;

2.4.4 any Liabilities for payment of the one-time fee to be paid as contemplated under Article VIII.A.3 of the Spent Fuel Disposal Contract;

2.4.5 (a) any Liabilities for any insurance premiums under the ANI nuclear liability insurance policy and NEIL property damage insurance policy relating to the CR-3 Facility for the period prior to the Closing Date; and (b) during the period beginning on the Closing Date and ending on the date on which the last of the ISFSI Only Interim End-State Conditions are achieved, all Liabilities for the insurance premiums due for the NEIL property damage insurance policy relating to the CR-3 Facility that are not Assumed Liabilities (based on the applicable NEIL endorsement), and any Liabilities for insurance premiums under the ANI nuclear liability insurance policy;

2.4.6 any Liabilities of Seller to the extent arising from the execution, delivery or performance of this Agreement and the transactions contemplated hereby;

2.4.7 any Liabilities arising as a result of or in connection with the disposal, storage or transportation of Nuclear Materials to locations or at locations other than on the Crystal River Site prior to the Closing Date in connection with the ownership or possession of the CR-3 Facility;

2.4.8 all Liabilities for DOE Decontamination and Decommissioning Fees relating to Nuclear Fuel purchased and consumed at the CR-3 Facility prior to the Closing Date, including all Special Assessment invoices, if any, issued after the Closing Date by the Department of Energy, as contemplated by the DOE regulations at 10 C.F.R. Part 766 implementing Sections 1801, 1802, and 1803 of the Atomic Energy Act;

2.4.9 all Liabilities for payment of the Spent Nuclear Fuel Fees; and

2.4.10 all other Liabilities related to the Assets expressly allocated to or retained by Seller in this Agreement, pursuant to the Decommissioning Agreement or pursuant to any of the Ancillary Agreements.

ARTICLE 3 THE CLOSING

3.1 Consideration. Buyer and Seller acknowledge and agree that Buyer's payment of One Thousand Dollars (\$1,000) to Seller and Buyer's assumption of the Assumed Liabilities constitutes full and adequate compensation to Seller for the Assets purchased and sold hereunder.

3.2 The Closing. The Closing shall take place as soon as practicable following the execution and delivery of this Agreement, but in no event later than the fifth (5th) Business Day after the satisfaction or waiver of the conditions set forth in Sections 6.1 and 6.2, unless this Agreement is terminated earlier in accordance with Article 4 of the Decommissioning Agreement.

ARTICLE 4 REPRESENTATIONS AND WARRANTIES OF SELLER

Seller represents and warrants to Buyer as follows:

4.1 Organization; Qualification. Seller is a limited liability company duly organized, validly existing and in good standing under the Laws of the State of Florida and has all requisite corporate power and authority to own, transfer, lease and operate its properties and to carry on its business as is now being conducted. Seller is duly licensed or qualified to do business and is in good standing in each jurisdiction in which the ownership of the CR-3 Facility or the operation of the business related to the CR-3 Facility as currently conducted makes such licensing or qualification necessary.

4.2 Authority Relative to this Agreement. Seller has full corporate power and authority to execute and deliver this Agreement and the Ancillary Agreements to which it is a party, and to consummate the transactions contemplated hereby and thereby. The execution and delivery of this Agreement, the Ancillary Agreements to which Seller is a party and the consummation of the transactions contemplated hereby and thereby have been duly and validly

authorized by all necessary corporate action required on the part of Seller and no other corporate proceedings on the part of Seller are necessary to authorize this Agreement or the Ancillary Agreements to which Seller is a party, or to consummate the transactions contemplated hereby and thereby. This Agreement and the Ancillary Agreements to which Seller is a party have been duly and validly executed and delivered by Seller, and assuming that this Agreement and the applicable Ancillary Agreements constitute valid and binding agreements of Buyer, and subject to the receipt of Company's Required Regulatory Approvals, this Agreement and the Ancillary Agreements to which Seller is a party constitute the legal, valid and binding agreement of Seller, enforceable against Seller in accordance with their respective terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium, and other similar Laws affecting creditors' rights generally and by general principles of equity.

4.3 Consents and Approvals; No Violation.

4.3.1 Subject to the receipt of the Company's Required Regulatory Approvals, neither the execution and delivery of this Agreement or the Ancillary Agreements by Seller nor the consummation of the transactions contemplated hereby or thereby by Seller will (i) conflict with or result in the breach or violation of any provision of the certificate of formation or limited liability company or operating agreement of Seller; (ii) require consent, notice or other action, conflict with, result in a violation or breach of, constitute a default or an event that, with or without notice or lapse of time or both, would constitute a default under, or give rise to any right of termination, cancellation, modification or acceleration, under any of the terms, conditions or provisions of any material contract or Permit affecting the CR-3 Facility or the NRC-Licensed Site to which Seller is a party or by which Seller may be bound; or (iii) violate in any material respect any Laws applicable to Seller or the NRC-Licensed Site.

4.3.2 Except as set forth in Schedule 4.3.2, no material declaration, filing or registration with, or notice to, or authorization, consent or approval of any Governmental Authority is necessary for the execution and delivery of this Agreement or the Ancillary Agreements or the consummation by Seller of the transactions contemplated by this Agreement or the Ancillary Agreements other than such declarations, filings, registrations, notices, authorizations, consents or approvals which become applicable to Seller as a result of the specific regulatory status of Buyer (or any of its Affiliates) or the result of any other facts that specifically relate to the business or activities in which Buyer (or any of its Affiliates) is engaged.

4.4 Absence of Seller Material Adverse Effect. Except as set forth in Schedule 4.4, to the Knowledge of Seller, no Seller Material Adverse Effect has occurred since January 1, 2019.

4.5 Spent Fuel Disposal Contract. Seller has provided Buyer with an accurate and complete copy of the Spent Fuel Disposal Contract. Seller has paid the Spent Nuclear Fuel Fees in accordance with Article VIII.A.3 of the Spent Fuel Disposal Contract.

4.6 Legal Proceedings. There are no claims, actions, proceedings, judgments or investigations pending or, to the Knowledge of Seller, threatened against or relating to Seller before any court, arbitrator, mediator or Governmental Authority which, individually or in the aggregate, could reasonably be expected to (a) prohibit or restrain the performance by Seller of

this Agreement or any of the Ancillary Agreements or the consummation of the transactions contemplated hereby or thereby or Buyer's ability to perform its obligations under the Decommissioning Agreement; or (b) result in a material claim against Buyer for damages as a result of Seller entering into this Agreement or any of the Ancillary Agreements, or of the consummation of the transactions contemplated hereby or thereby. Seller is not subject to any outstanding judgment, rule, order, writ, injunction or decree of any court, arbitrator or Governmental Authority which, individually or in the aggregate, could reasonably be expected to have a Seller Material Adverse Effect.

4.7 NRC License. Seller has all licenses, permits, and other consents and approvals applicable to the NRC-Licensed Site that are issued by the NRC and are required under Nuclear Laws with respect to the ownership, possession and use of the Spent Nuclear Fuel and the HLW, including the NRC License (collectively, "Licenses"), and all such Licenses are in full force and effect. Seller has not received any written notification which remains unresolved that it is in violation of any of such Licenses, or any order, rule, regulation, or decision of the NRC with respect to the NRC-Licensed Site. Seller is in compliance in all material respects with all Nuclear Laws and all orders, rules, regulations, or decisions of NRC applicable to it with respect to the NRC-Licensed Site. The representations and warranties set forth in this Section 4.7 are Seller's sole and exclusive representations and warranties regarding the NRC License, the Licenses and Nuclear Laws.

4.8 Brokerage Fees and Commissions. No broker, finder or other Person is entitled to any brokerage fees, commissions or finder's fees in connection with the transactions contemplated hereby by reason of any action taken by Seller. Seller will pay or otherwise discharge, and will indemnify and hold Buyer harmless from and against, any and all claims or liabilities for all brokerage fees, commissions and finder's fees incurred by Buyer by reason of any action taken by Seller.

ARTICLE 5 REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer represents and warrants to Seller as follows:

5.1 Organization; Qualification. Buyer is a limited liability company duly formed, validly existing and in good standing under the Laws of the State of Delaware. Buyer has all requisite corporate power and authority to own, lease and operate its properties and to carry on its business as it is now being conducted. Buyer has heretofore delivered or made available to Seller complete and correct copies of its certificate of formation or organization, and limited liability company or operating agreement, as currently in effect. Buyer is, or on the Closing Date will be, qualified to conduct business in the State of Florida.

5.2 Authority Relative to this Agreement. Buyer has full corporate power and authority to execute and deliver this Agreement and the Ancillary Agreements and to consummate the transactions contemplated hereby and thereby. The execution and delivery of this Agreement, the Ancillary Agreements to which Buyer is a party and the Closing have been duly and validly authorized by all necessary corporate action required on the part of Buyer and no other corporate proceedings on the part of Buyer are necessary to authorize this Agreement or

the Ancillary Agreements to which Buyer is a party, or to consummate the Closing. This Agreement and the Ancillary Agreements to which Buyer is a party have been duly and validly executed and delivered by Buyer, and assuming that this Agreement and the applicable Ancillary Agreements constitute valid and binding agreements of Seller, and subject to the receipt of the Contractor's Required Regulatory Approvals, this Agreement and the Ancillary Agreements constitute the legal, valid and binding agreement of Buyer, enforceable against Buyer in accordance with their respective terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium, and other similar Laws affecting creditors' rights generally and by general principles of equity.

5.3 Consents and Approvals; No Violation.

5.3.1 Subject to the receipt of the third-party consents set forth in Schedule 5.3.1 and the Contractor's Required Regulatory Approvals, neither the execution and delivery of this Agreement and the Ancillary Agreements by Buyer, nor the Closing will (i) conflict with or result in any breach of any provision of the certificate of formation or organization, or limited liability company or operating agreement, of Buyer; (ii) require consent, notice or other action, conflict with, result in a violation or breach of, constitute a default or an event that, with or without notice or the lapse of time or both, would constitute a default under, or give rise to any right of termination, cancellation, modification or acceleration, under any of the terms, conditions or provisions of any material contract or Permit to which Buyer is a party or by which any of its assets may be bound, except as could not reasonably be expected, individually or in the aggregate, to have a Buyer Material Adverse Effect; or (iii) violate any Laws applicable to Buyer, which violations, individually or in the aggregate, would create a Buyer Material Adverse Effect.

5.3.2 Except as set forth in Schedule 5.3.2, no material declaration, filing or registration with, or notice to, or authorization, consent or approval of any Governmental Authority is necessary for the execution of this Agreement and the Ancillary Agreements and the consummation by Buyer of the Closing, other than such declarations, filings, registrations, notices, authorizations, consents or approvals which become applicable to Buyer as a result of the specific regulatory status of Seller (or any of its Affiliates) or the result of any other facts that specifically relate to the business or activities in which Seller (or any of its Affiliates) is or will be engaged as a result of the transactions proposed under this Agreement or any Ancillary Agreement.

5.4 Legal Proceedings. There are no claims, actions, litigations, judgments, proceedings or investigations pending or, to the Knowledge of Buyer, threatened against Buyer or any of its Affiliates before any court, arbitrator, mediator or Governmental Authority which, individually or in the aggregate, could reasonably be expected to (i) prohibit or restrain the performance by Buyer of this Agreement or the Ancillary Agreements or the Closing or (ii) result in a material claim against Seller for damages as a result of Buyer entering into this Agreement or any of the Ancillary Agreements, or of the Closing. None of Buyer or its Affiliates are subject to any outstanding judgment, rule, order, writ, injunction or decree of any court, arbitrator or Governmental Authority which could reasonably be expected to have a Buyer Material Adverse Effect.

5.5 Absence of Buyer Material Adverse Effect. There has not been any Buyer Material Adverse Effect.

5.6 Exclusivity. As of the date hereof Buyer has not and as of the Closing Date Buyer will not have conducted any material business other than the performance of its obligations under this Agreement and the Ancillary Agreements.

5.7 Foreign Ownership, Control, and Domination. Buyer, its sole member and each of the Parent Guarantors conform to the restrictions on foreign ownership, control or domination contained in Sections 103d and 104d of the Atomic Energy Act of 1954, as applicable, and 10 C.F.R. § 50.38, except to the extent the NRC has accepted any such ownership, control or domination and/or approved any mitigation under arrangements approved by the NRC.

5.8 Buyer Capability. Buyer is financially capable and properly qualified to undertake and perform its obligations under this Agreement and the Ancillary Agreements, and is properly licensed, equipped, and organized to do so. The financial statements of each Parent Guarantor and their consolidated subsidiaries as of and for the years ended December 31, 2017, and December 31, 2018, heretofore furnished by Buyer to Seller, are true and correct and present fairly, accurately, and completely the financial position of such Parent Guarantor, respectively, as of the dates and for the periods for which the same have been furnished, and all such financial statements have been prepared pursuant to and in accordance with GAAP applied on a consistent basis.

5.9 Brokerage Fees and Commissions. No broker, finder or other Person is entitled to any brokerage fees, commissions or finder's fees in connection with the transactions contemplated hereby by reason of any action taken by Buyer. Buyer will pay or otherwise discharge, and will indemnify and hold Seller harmless from and against, any and all claims or liabilities for all brokerage fees, commissions and finder's fees incurred by Seller by reason of any action taken by Buyer.

ARTICLE 6 CONDITIONS

6.1 Conditions to Obligations of Seller. The obligation of Seller to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment at or prior to the Closing Date, or the waiver by Seller, of the following conditions:

6.1.1 No preliminary or permanent injunction or other order or decree by any Governmental Authority which restrains or prevents the consummation of the transactions contemplated by this Agreement or the Ancillary Agreements shall have been issued and remain in effect and no statute, rule or regulation shall have been enacted by any Governmental Authority which prohibits the consummation of the transactions contemplated by this Agreement or the Ancillary Agreements;

6.1.2 Seller shall have received all of Company's Required Regulatory Approvals, which are each in form and substance reasonably satisfactory to Seller and without conditions or requirements other than those accepted by Seller or contemplated by this Agreement;

6.1.3 Buyer shall have delivered, or caused to be delivered, to Seller at the Closing, Buyer's closing deliveries described in Section 4.3 of the Decommissioning Agreement;

6.1.4 Buyer shall have performed and complied in all material respects with the covenants and agreements contained in Article 3 of the Decommissioning Agreement which are required to be performed and complied with by Buyer on or prior to the Closing Date;

6.1.5 The representations and warranties of Buyer set forth in this Agreement that are qualified by materiality and the representations and warranties of Buyer under Section 5.5 shall have been true and correct as of the Contract Date and shall be true and correct as of the Closing Date as though made at and as of the Closing Date, and all other representations and warranties of Buyer set forth in this Agreement shall have been true and correct as of the date hereof and shall be true and correct in all material respects as of the Closing Date as though made at and as of the Closing Date;

6.1.6 Seller shall have received a certificate from an authorized officer of Buyer, dated the Closing Date, certifying that the conditions set forth in Sections 6.1.4, 6.1.5 and 6.1.7 have been satisfied;

6.1.7 Since the Contract Date, no Buyer Material Adverse Effect shall have occurred and be continuing;

6.1.8 Contractor's sole member shall have pledged its equity interest in Contractor, pursuant to the Pledge Agreement, as security for Contractor's obligations under the Decommissioning Agreement and the Ancillary Agreements to which Contractor is a party, and it shall have obtained any consents as may be required for the creation of this security interest, and Seller's security interest shall have attached and shall be a perfected, first-priority security interest in the entire equity interest in Contractor;

6.1.9 Each Parent Guaranty shall be in full force and effect, and Seller shall have received a certificate from an authorized officer of each Parent Guarantor, dated the Closing Date, certifying that the representations and warranties of each Parent Guarantor under its respective Parent Guaranty are true and correct as of the Closing Date;

6.1.10 This Agreement, the Decommissioning Agreement and the Ancillary Agreements shall be in full force and effect as of the Closing Date, with no default thereunder, and all transactions contemplated by this Agreement, the Decommissioning Agreement or the Ancillary Agreements to occur at Closing shall have occurred or shall occur contemporaneously with the Closing;

6.1.11 Contractor shall have established the Contractor's Provisional Trust Fund and funded the Provisional IOI Account;

6.1.12 Buyer shall have established the ISFSI Decommissioning Trust and provided financial assurance to such trust in a form and in an amount meeting the requirements of 10 CFR 70.32(e); and

6.1.13 The Crystal River Decommissioning Reserve Subaccount in the NDF shall contain assets in an amount not less than Fifty Million Dollars (\$50,000,000).

6.2 Conditions to Obligations of Buyer. The obligations of Buyer to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment at or prior to the Closing Date, or the waiver by Buyer, of the following conditions:

6.2.1 No preliminary or permanent injunction or other order or decree by any Governmental Authority which restrains or prevents the consummation of the transactions contemplated by this Agreement or the Ancillary Agreements shall have been issued and remain in effect and no statute, rule or regulation shall have been enacted by any Governmental Authority which prohibits the consummation of the transactions contemplated by this Agreement or the Ancillary Agreements;

6.2.2 Contractor shall have received all of Contractor's Required Regulatory Approvals, which are in form and substance reasonably satisfactory to Buyer, without conditions or requirements other than those accepted by Buyer in this Agreement or the Ancillary Agreements;

6.2.3 Seller shall have delivered, or caused to be delivered, to Buyer at the Closing, Seller's closing deliveries described in Section 4.2 of the Decommissioning Agreement;

6.2.4 Seller shall have performed and complied in all material respects with the covenants and agreements contained in the Decommissioning Agreement which are required to be performed and complied with by Seller on or prior to the Closing;

6.2.5 The representations and warranties of Seller set forth in this Agreement that are qualified by materiality and the representations and warranties of Seller under Section 4.4 shall have been true and correct as of the Contract Date and shall be true and correct as of the Closing Date as though made at and as of the Closing Date, and all other representations and warranties of Seller set forth in this Agreement shall have been true and correct as of the date hereof and shall be true and correct in all material respects as of the Closing Date as though made at and as of the Closing Date;

6.2.6 Buyer shall have received a certificate from an authorized officer of Seller, dated the Closing Date, certifying that the conditions set forth in Sections 6.2.4, 6.2.5 and 6.2.7 have been satisfied;

6.2.7 Since the Contract Date, no Seller Material Adverse Effect shall have occurred and be continuing;

6.2.8 This Agreement and the Ancillary Agreements shall be in full force and effect as of the Closing Date, with no default thereunder, and all transactions contemplated by this Agreement or the Ancillary Agreements to occur at Closing shall have occurred or shall occur contemporaneously with the Closing; and

6.2.9 The IOI Decommissioning Subaccount shall contain assets that are in an amount not less than the Agreed Amount and shall be subject to the terms set forth in the

Amended and Restated NDF Agreement, as amended by the Fourth Amendment to Amended and Restated NDF Agreement.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 Amendment and Modification. This Agreement may be amended, modified or supplemented only by written agreement of Seller and Buyer.

7.2 Waiver of Compliance; Consents. Except as otherwise provided in this Agreement, any failure of any of the Parties to comply with any obligation, covenant, agreement or condition herein may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting such waiver, but such waiver of such obligation, covenant, agreement or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent failure to comply therewith.

7.3 Termination; Survival. If the Decommissioning Agreement is terminated prior to the Closing Date, this Agreement shall automatically terminate concurrently with the termination of the Decommissioning Agreement and be of no further force and effect. All of the representations and warranties of the Parties contained in this Agreement shall terminate as of the Closing Date.

7.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed given if delivered personally or by electronic mail, or mailed by overnight courier or registered or certified mail (return receipt requested), postage prepaid, to the recipient Party at its address at set forth below (or at such other address for a Party as shall be specified by like notice; provided, however, that notices of a change of address shall be effective only upon receipt thereof):

If to Seller, to:

Duke Energy Florida, LLC
15760 W. Power Line Street
Crystal River, FL 34428
Attn.: Terry Hobbs, CR-3 Decommissioning Manager
E-mail: terry.hobbs@duke-energy.com

with a copy (which shall not constitute notice) to:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 45A
Charlotte, NC 28202
Attn: Tracey LeRoy, Legal Counsel, Nuclear (Crystal River Unit 3)
Email: tracey.leroy@duke-energy.com

and

Morgan, Lewis & Bockius LLP
300 S. Grand Avenue, 22nd Floor
Los Angeles, CA 90071
Attn: Ingrid A. Myers
E-mail: Ingrid.myers@morganlewis.com

if to Buyer, to:

ADP SF1, LLC
c/o Accelerated Decommissioning Partners, LLC
17101 Preston Road, Suite 115
Dallas, TX 75248
Attn: Scott State, CEO
E-mail: ssstate@northstar.com

with a copy (which shall not constitute notice) to:

NorthStar Group Services, Inc.
35 Corporate Drive, Suite 1155
Trumbull, CT 06611
Attn: Gregory G. DiCarlo, Vice President & General Counsel
E-mail: gdicarlo@northstar.com

Orano USA, LLC
1155 F St. NW, Suite 800
Washington, DC 20004
Attn: Michael Woods, General Counsel
E-mail: michael.woods@orano.group

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

7.5 No Third Party Beneficiaries. This Agreement is for the sole benefit of the Parties hereto and their respective permitted successors and assigns, and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

7.6 Assignment. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns. Buyer shall not, including by operation of law, assign this Agreement or any of its rights, interests or obligations hereunder to any other Person, without the prior written consent of Seller. Any assignment in contravention of the foregoing sentence shall be null and void and without legal effect on the rights and obligations of the Parties.

7.7 Governing Law. This Agreement shall be governed by and construed in accordance with the Laws of the State of Florida (without giving effect to conflict of law principles) as to all matters, including matters of validity, construction, effect, performance and remedies.

7.8 Dispute Resolution. All disputes under or arising out of this Agreement, and the resolution of all such disputes, shall be made in accordance with the dispute resolution provisions set forth in Section 16.7 of the Decommissioning Agreement, which provisions are incorporated herein *mutatis mutandis*.

7.9 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY, AND INTENTIONALLY WAIVES ANY RIGHTS IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BETWEEN THE PARTIES OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS AGREEMENT, THE ANCILLARY AGREEMENTS OR ANY OTHER DOCUMENTS ENTERED INTO IN CONNECTION HEREWITH.

7.10 Schedules. The Schedules have been arranged for purposes of convenience in separately titled sections corresponding to Sections of this Agreement. Any fact or item disclosed on any Schedule to this Agreement shall be deemed disclosed on all other Schedules to this Agreement to which such fact or item may reasonably apply so long as such disclosure is in sufficient detail to enable a Party to identify the facts or items to which it applies. The information contained in this Agreement and in the Schedules and Exhibits hereto is disclosed solely for purposes of this Agreement, and no information contained herein or therein shall be deemed to be an admission by any party hereto to any third party of any matter whatsoever (including any violation of Law or breach of contract). Any fact or item disclosed on any Schedule hereto shall not by reason only of such inclusion be deemed to be material and shall not be employed as a point of reference in determining any standard of materiality under this Agreement. Capitalized terms used in the Schedules and not otherwise defined therein have the meanings given to them in this Agreement.

7.11 Entire Agreement. This Agreement and the Ancillary Agreements, including the Exhibits, Schedules, attachments, documents, certificates and instruments referred to herein or therein, embody the entire agreement and understanding of the Parties in respect of the transactions contemplated by this Agreement and shall supersede all previous oral and written and all contemporaneous oral negotiations, commitments and understandings including all letters, memoranda or other documents or communications, whether oral, written or electronic, submitted or made by (i) either Buyer, its Affiliates, including the Parent Guarantors, or their respective Representatives; or (ii) Seller, its Affiliates or their respective Representatives, in connection with the negotiation and execution of this Agreement.

7.12 ACKNOWLEDGMENT; INDEPENDENT DUE DILIGENCE.

7.12.1 EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH HEREIN, THE ASSETS ARE SOLD "AS-IS, WHERE-IS," AND SELLER EXPRESSLY DISCLAIMS ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, AS TO THE

ASSETS, THE ASSUMED LIABILITIES, THE CR-3 FACILITY OR THE CRYSTAL RIVER SITE. BUYER ACKNOWLEDGES AND AGREES THAT NONE OF SELLER OR ITS AFFILIATES HAVE MADE ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF ANY INFORMATION REGARDING THE ASSETS, THE ASSUMED LIABILITIES, THE CR-3 FACILITY OR THE CRYSTAL RIVER SITE NOT INCLUDED IN THIS AGREEMENT. NO COMMUNICATIONS BY OR ON BEHALF OF SELLER, INCLUDING RESPONSES TO ANY QUESTIONS OR INQUIRIES, WHETHER ORALLY, IN WRITING OR ELECTRONICALLY, AND NO INFORMATION PROVIDED IN ANY DATA ROOM OR ANY COPIES OF ANY INFORMATION FROM ANY DATA ROOM PROVIDED TO BUYER OR IT'S AFFILIATES OR THEIR RESPECTIVE REPRESENTATIVES OR ANY OTHER INFORMATION SHALL BE DEEMED TO (I) CONSTITUTE A REPRESENTATION, WARRANTY, COVENANT, UNDERTAKING OR AGREEMENT OF SELLER; OR (II) BE PART OF THIS AGREEMENT. NONE OF SELLER OR SELLER'S AFFILIATES SHALL HAVE OR BE SUBJECT TO ANY LIABILITY TO BUYER, IT'S AFFILIATES OR ANY OTHER PERSON, WITH RESPECT TO ANY INFORMATION, DOCUMENTS OR MATERIALS FURNISHED OR MADE AVAILABLE BY OR ON BEHALF OF SELLER OR ANY OF ITS AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR ADVISORS, IN ANY "DATA" OR "DUE DILIGENCE" ROOMS OR SITES, ANY PRESENTATIONS OR ANY OTHER FORM IN CONTEMPLATION OF THE TRANSACTIONS CONTEMPLATED HEREBY.

7.12.2 BUYER ACKNOWLEDGES THAT (a) BUYER AND THE PARENT GUARANTORS HAVE KNOWLEDGE AND EXPERIENCE IN TRANSACTIONS OF THIS TYPE AND IN THE DECOMMISSIONING OF NUCLEAR POWER PLANTS AND BUYER IS THEREFORE CAPABLE OF EVALUATING THE RISKS AND MERITS OF ACQUIRING THE ASSETS, ASSUMING THE ASSUMED LIABILITIES, CONSUMMATING THE TRANSACTIONS CONTEMPLATED IN THIS AGREEMENT AND THE ANCILLARY AGREEMENTS, AND PERFORMING ITS OBLIGATIONS HEREUNDER AND THEREUNDER; AND (b) BUYER AND THE PARENT GUARANTORS HAVE RELIED ON THEIR OWN INDEPENDENT INVESTIGATION AND PERFORMED THEIR OWN ANALYSIS OF THE ASSETS AND THE ASSUMED LIABILITIES, AND THE CR-3 FACILITY AND CR-3 SITE, AND HAVE NOT RELIED ON ANY INFORMATION OR REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, AT COMMON LAW OR STATUTE, FURNISHED BY SELLER OR ANY OF ITS AFFILIATES OR THEIR RESPECTIVE REPRESENTATIVES, EXCEPT AS SPECIFICALLY SET FORTH IN THIS AGREEMENT, IN DETERMINING TO ENTER INTO THIS AGREEMENT AND THE ANCILLARY AGREEMENTS. NONE OF SELLER, ITS AFFILIATES OR THEIR RESPECTIVE REPRESENTATIVES HAS GIVEN ANY INVESTMENT, LEGAL OR OTHER ADVICE OR RENDERED ANY OPINION AS TO WHETHER THE PURCHASE OF THE ASSETS AND THE CONSUMMATION OF THE TRANSACTIONS AS CONTEMPLATED HEREIN AND IN THE ANCILLARY AGREEMENTS IS PRUDENT.

7.13 No Joint Venture. Nothing in this Agreement creates or is intended to create an association, trust, partnership, joint venture or other entity or similar legal relationship among the Parties, or impose a trust, partnership or fiduciary duty, obligation, or liability on or with respect to the Parties. No Party is or shall act as or be the agent or representative of any other Party.

7.14 Severability. Any term or provision of this Agreement that is held invalid or unenforceable in any situation shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation; provided, however, that the remaining terms and provisions of this Agreement may be enforced only to the extent that such enforcement in the absence of any invalid terms and provisions would not result in (i) deprivation of a Party of a material aspect of its original bargain upon execution of this Agreement or any of the Ancillary Agreements; (ii) unjust enrichment of a Party; or (iii) any other manifestly unfair or inequitable result.

7.15 Counterparts. This Agreement may be executed in two or more counterparts and by facsimile or electronic delivery, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

7.16 Specific Performance. Each Party acknowledges and agrees that the other Party or Parties would be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached. Accordingly, each Party agrees that the other Parties shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in addition to any other remedy to which it may be entitled, at law or in equity.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized officers as of the date first written above.

SELLER:

DUKE ENERGY FLORIDA, LLC

By: _____

Name: _____

Title: _____

BUYER:

ADP SF1, LLC

By: _____

Name: _____

Title: _____

Execution Copy

EXHIBIT B-1

FORM OF PARENT GUARANTY (NORTHSTAR)

PARENT GUARANTY

THIS GUARANTY is given this __ day of _____, 20__ by NorthStar Group Services, Inc., a Delaware corporation (“**Guarantor**”), for the benefit of Duke Energy Florida, LLC, a Florida limited liability company (“**Company**”).

WITNESSETH:

WHEREAS, Company owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site;

WHEREAS, Company, ADP CR3, LLC, a Delaware limited liability company (“**Contractor**”), and ADP SF1 LLC, a Delaware limited liability company (“**Buyer**”), have entered into the Decommissioning Services Agreement dated as of May __, 2019 (the “**Decommissioning Agreement**”), whereby Company has engaged Contractor and Buyer to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described therein.

WHEREAS, in connection with the transactions as contemplated under the Decommissioning Agreement, Company and Buyer are parties to that certain Spent Nuclear Fuel Purchase and Sale Agreement dated as of the date hereof (the “**SNF PSA**”), whereby Buyer has purchased and acquired the Spent Nuclear Fuel, storage canisters, HLW, including Greater Than Class C waste from the CR-3 Facility as currently stored on the ISFSI, or otherwise located at the CR-3 Facility and to be stored on the ISFSI, together with certain associated liabilities and obligations. Unless otherwise defined herein, capitalized terms used in this Guaranty shall have the meanings ascribed to such terms in the Decommissioning Agreement or the SNF PSA.

WHEREAS, each of Contractor and Buyer is an indirect subsidiary of Guarantor, and Guarantor will receive direct or indirect benefits from the Decommissioning Agreement, the SNF PSA, and the Ancillary Agreements.

WHEREAS, Guarantor’s execution and delivery of this Guaranty, and the execution and delivery of a guaranty (the “**Other Parent Guaranty**”) by Orano USA LLC, a Delaware limited liability company (the “**Other Parent Guarantor**”), is a material condition to Company’s willingness to consummate the transactions as contemplated in the Decommissioning Agreement, the SNF PSA and the Ancillary Agreements.

NOW, THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby agrees as follows:

1. **GUARANTEE.** Guarantor, as an obligor and not merely as surety, absolutely, unconditionally and irrevocably guarantees to Company the full payment and performance when due of all of the obligations of Contractor and Buyer arising under the Decommissioning Agreement, the SNF PSA, the Pledge Agreement, the Parent Support Agreements, [REDACTED], the Amended and Restated LLC Agreement and the SNF Services Agreement, as amended or modified from time to time, including without limitation with respect to the Decommissioning of the CR-3 Facility and the NRC-Licensed Site (collectively, the “**Obligations**”). Guarantor agrees that if for any reason Contractor or Buyer shall fail to pay or perform any of such Obligations when due, Guarantor will (a) make any payment within thirty (30) days of having received from Company written notice of the failure to pay and a demand for payment, such payment being the same as would have been received by Company had such amount been duly paid by Contractor or Buyer in accordance with the terms of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement; or (b) upon receipt of written notice of failure to perform and a demand by Company, perform or cause to be performed any Obligation in accordance with Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement. Guarantor and Company acknowledge and agree that Guarantor and the Other Parent Guarantor, respectively, are severally (and not jointly) liable for the Obligations in accordance with the terms and conditions of this Guaranty (subject to the limitations of Article 4 hereof) and the Other Parent Guaranty (subject to the limitations of Article 4 thereof).

2. **UNCONDITIONAL OBLIGATION.** This is a guarantee of payment and performance and not of collection. The liability of Guarantor under this Guaranty is direct, irrevocable and not conditional or contingent upon the pursuit of any remedies against Contractor, Buyer, the Other Parent Guarantor, or any other person or entity, nor upon any other recourse available to Company, its successors, endorsees, transferees, or assigns; provided that the liability of Guarantor is subject to the limitations of Article 4 hereof. Guarantor waives any and all rights it may now or in the future have under law or in equity to require either that an action be brought against Contractor, Buyer, the Other Parent Guarantor, or any other person or entity as a condition to proceeding against Guarantor.

3. **ABSOLUTE OBLIGATION.** The obligations of Guarantor under this Guaranty are absolute and without regard to lack of power or authority of Contractor or Buyer to enter into the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any other circumstances which might otherwise constitute a legal or equitable discharge of a surety or guarantor. Guarantor agrees that Company and Contractor or Buyer may modify or amend the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement and that Company may delay or extend the date on which any guaranteed Obligation must be paid or performed, or release Contractor or Buyer from any guaranteed Obligation or waive any right thereunder, all without notice to or further assent by Guarantor, which shall remain bound by this Guaranty, notwithstanding any such act by Company. The obligations of Guarantor under this Guaranty shall not be affected, reduced, or impaired upon the happening of any of the following events:

- (a) the failure to give notice to Guarantor of the occurrence of a default under the terms and provisions of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, provided Company has complied with the notice requirements of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement;
- (b) any lack of validity or enforceability of or defect or deficiency applicable to any of Contractor or Buyer in the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any other agreement or instrument executed in connection therewith;
- (c) any change in the time, manner, terms or place of payment or performance or in any other term of, all or any of the Obligations, or any other amendment, extension or waiver of or any consent to departure from the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement;
- (d) failure, omission, delay, waiver or refusal by Company to exercise, in whole or in part, any right or remedy held by Company with respect to this Guaranty, the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any transaction hereunder or thereunder;
- (e) any change in the existence, structure or ownership of Guarantor or any of Contractor or Buyer, or any voluntary or involuntary liquidation, or dissolution, or insolvency, bankruptcy, reorganization, or other similar proceeding affecting any or all of Contractor or Buyer or their respective assets; or
- (f) the merger or consolidation of Contractor or Buyer into or with any corporation or other entity, or Contractor's or Buyer's loss of its separate corporate identity or its ceasing to be an affiliate of Guarantor.

4. LIMITATION OF LIABILITY. Guarantor's obligations to perform in accordance with Article 1 hereof shall be limited to seventy five percent (75%) of any amount claimed by Company due to a failure by Contractor or Buyer to pay or perform any of the Obligations when due and shall in no event exceed an aggregate of Four Hundred Five Million Dollars (\$405,000,000) (the "**Maximum Aggregate Amount**"); provided that after Contractor achieves all of the ISFSI-Only Interim End-State Conditions in accordance with the Decommissioning Agreement, Guarantor's obligations hereunder shall in no event exceed an aggregate of One Hundred Five Million Dollars (\$105,000,000). Notwithstanding anything to the contrary contained herein, Guarantor's obligations to perform in accordance with Article 1 hereof: (a) shall be subject to the same limitations as limit Contractor's or Buyer's duty to perform under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, and Guarantor shall be entitled to assert the same rights, releases, defenses (excluding bankruptcy, insolvency or similar defenses), indemnities, hold harmless provisions, insurance protection, and all limitations of liability, including monetary limitations of liability against Company hereunder as Contractor or Buyer might assert against Company under the Decommissioning Agreement, the SNF PSA, or any

Ancillary Agreement; (b) shall not expand or in any way exceed the obligations of Contractor or Buyer under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement; (c) are several (and not joint and several) from Contractor, Buyer, Other Parent Guarantor or any other Person; and (d) shall not extend beyond the Termination Date.

5. WAIVER OF NOTICE. Guarantor hereby waives notice of (a) Company's acceptance and reliance on this Guaranty; (b) default or demand in the case of default, provided such notice or demand has been given to or made upon Contractor or Buyer; and (c) any indulgences, extensions or consents granted to Contractor or Buyer or any other surety. Guarantor waives promptness, diligence, presentment, demand of payment or enforcement and any other notice with respect to any of the guaranteed obligations and this Guaranty.

6. SUBROGATION RIGHTS. Any subrogation rights of Guarantor arising by reason of any payments made under this Guaranty shall be subordinate to the performance in full by Contractor or Buyer of all obligations under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, including, without limitation, payment in full of all amounts which may be owing by Contractor or Buyer to Company thereunder.

7. TERM. This Guaranty shall remain in full force and effect until the payment or completion in full of the Obligations (the "**Termination Date**").

8. EXPENSES. Guarantor agrees to pay all reasonable out-of-pocket expenses (including the reasonable fees and expenses of Company's counsel) relating to the enforcement of Company's rights hereunder in the event the Guarantor disputes its obligations under this Guaranty and it is finally determined (whether through settlement, arbitration or adjudication, including the exhaustion of all permitted appeals), that Company is entitled to receive payment of a portion of or all of such disputed amounts.

9. ASSIGNMENT. This Guaranty shall inure to the benefit of Company, its successors and permitted assigns and shall be binding upon Guarantor and its successors and permitted assigns. Neither Company nor Guarantor shall have any right to assign this Guaranty or any of their respective rights or obligations hereunder to any other Person without the prior written consent of the non-assigning party, which may be granted or withheld in the sole discretion of such non-assigning party, and any purported assignment in violation of this provision shall be null and void.

10. REPRESENTATIONS AND WARRANTIES. Guarantor hereby represents and warrants to Company that:

(a) entering into this Guaranty and performance hereunder will not (i) conflict with or result in any breach of any provision of the certificate of incorporation or bylaws of Guarantor; (ii) result in a default (or give rise to any right of termination, cancellation or acceleration) under any of the terms, conditions or provisions of any note, bond, mortgage, indenture, agreement, lease or other instrument or obligation to which Guarantor is a party or by which any of its assets may be bound; or (iii) violate any Laws applicable to Guarantor;

(b) Guarantor is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and is in good standing in each jurisdiction where the failure to be in good standing would materially and adversely affect its ability to perform its obligations under this Guaranty;

(c) the execution and delivery by Guarantor of this Guaranty, and the performance by Guarantor of its obligations hereunder (i) are within Guarantor's corporate powers, and (ii) have been duly authorized by all necessary action, (corporate or otherwise); and

(d) this Guaranty constitutes the legal, valid and binding obligation of Guarantor enforceable against Guarantor in accordance with the terms of this Guaranty, subject to applicable bankruptcy, insolvency, moratorium, and other similar Laws affecting the enforcement of creditors' rights generally and general principles of equity (whether enforcement is sought by proceedings in equity or law).

11. SEVERABILITY. The invalidity or unenforceability of any provision of this Guaranty shall not affect the validity or enforceability of the remaining provisions of this Guaranty, which shall be enforced to the greatest extent permitted by law.

12. EXERCISE OF REMEDIES. No single or partial exercise by Company or its successors or assigns of any right or remedy shall preclude any further exercise thereof.

13. WAIVERS. No delay or omission to exercise any right or power of Company shall impair any such right or power or shall be construed to be a waiver thereof. No waiver of any right of Company under this Guaranty shall be effective unless made pursuant to an instrument in writing duly executed by Company.

14. NOTICES. All notices permitted or required to be given under this Guaranty shall, unless otherwise specifically provided herein, (a) be in writing addressed to the party receiving the notice at the address set forth below or at such other address as may be designated by written notice, from time to time, to the other party, and (b) be effective upon receipt, when mailed by U.S. mail, registered or certified, return receipt requested, postage prepaid, via electronic mail, or personally delivered; provided that delivery by electronic mail is confirmed in writing (which may be by return e-mail). Notices shall be sent to the following addresses:

If to Company:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 41Q
Charlotte, NC 28202
Attn.: Chief Risk Officer
E-mail: reg.credit@duke-energy.com

with a copy (which shall not constitute notice) to:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 45A
Charlotte, NC 28202
Attn: Tracey LeRoy, Legal Counsel, Nuclear (Crystal River Unit 3)
Email: tracey.leroy@duke-energy.com

and

Morgan, Lewis & Bockius LLP
300 S. Grand Avenue, 22nd Floor
Los Angeles, CA 90071
Attn: Ingrid A. Myers
E-mail: Ingrid.myers@morganlewis.com

If to Guarantor:

NorthStar Group Services, Inc.
35 Corporate Drive, Suite 1155
Trumbull, CT 06611
Attn: Gregory G. DiCarlo, Vice President & General Counsel
E-mail: gdicarlo@northstar.com

with a copy (which shall not constitute notice) to:

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

15. NO RECOURSE. Notwithstanding anything that may be expressed or implied in this Guaranty, by its acceptance of the benefits of this Guaranty or any document or instrument delivered in connection herewith, Company acknowledges that no recourse shall be had hereunder or under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any document or instrument delivered in connection herewith or therewith, or for any claim based on, in respect of, or by reason of, such obligations or their creation, against, and no personal liability shall attach to, (a) the former, current and future equity holders, controlling persons, directors, officers, employees, agents, Affiliates (other than Contractor or Buyer), members, managers, general or limited partners, or representatives of Guarantor; or (b) any former, current or future equity holder, controlling person, director, officer, employee, agent, Affiliate (other than Contractor or Buyer), member, manager, general or limited partner, or representative of any of such Persons (such Persons, excluding, for the avoidance of doubt, Guarantor and Contractor and Buyer, each a “**Non-Recourse Party**”, and collectively the “**Non-Recourse Parties**”), whether by or through attempted piercing of the corporate veil, by or through a claim (whether in tort, contract

or otherwise) by or on behalf of Company against any Non-Recourse Party, by the enforcement of any assessment or by any legal or equitable proceeding, by virtue of any applicable Law, or otherwise. Company's rights and remedies under this Guaranty shall be the sole and exclusive remedy of Company and its Affiliates against Guarantor and the Non-Recourse Parties in respect of any liabilities or obligations arising under, or in connection with, this Guaranty, Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, or the transactions contemplated thereby or in respect of any oral representations made or alleged to be made in connection therewith. Nothing set forth in this Guaranty shall confer or give or shall be construed to confer or give to any Person (including any Person acting in a representative capacity) any rights or remedies against any Person (including any Non-Recourse Party) other than rights or remedies against Guarantor as expressly set forth herein. Company acknowledges that Guarantor is agreeing to enter into this Guaranty in reliance on the provisions set forth in this Article 15. This Article 15 shall survive the termination of this Guaranty.

16. AMENDMENT. No amendment of this Guaranty shall be effective unless made pursuant to an instrument in writing duly executed by both Company and Guarantor.

17. NO BENEFIT TO CONTRACTOR OR BUYER. This Guaranty is for the benefit of Company only and is not for the benefit of any of Contractor or Buyer. This Guaranty shall not be deemed to be a contract to make a loan, or to extend other debt financing or financial accommodation, for the benefit of any of Contractor or Buyer, in each case within the meaning of Section 365(e) of the Bankruptcy Code (11 U.S.C. § 365(e)).

18. INTEGRATION OF TERMS. This Guaranty contains the entire agreement between Guarantor and Company relating to the subject matter hereof and supersedes all oral statements and prior writing with respect hereto.

19. REINSTATEMENT. This Guaranty shall continue to be effective or be reinstated, as the case may be, if at any time any payment to or on behalf of or by Contractor or Buyer under the Decommissioning Agreement, the SNF PSA or any Ancillary Agreement, or by Guarantor under this Guaranty, is rescinded or must otherwise be returned by Company upon the insolvency, bankruptcy, reorganization, dissolution or liquidation of Contractor or Buyer or otherwise, all as though such payment had not been made.

20. GOVERNING LAW; CONSENT TO JURISDICTION; VENUE.

(a) THIS GUARANTY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF FLORIDA (WITHOUT GIVING EFFECT TO CONFLICT OF LAW PRINCIPLES) AS TO ALL MATTERS, INCLUDING MATTERS OF VALIDITY, CONSTRUCTION, EFFECT, PERFORMANCE AND REMEDIES.

(b) THE GUARANTOR AGREES THAT VENUE IN ANY AND ALL ACTIONS AND PROCEEDINGS RELATED TO THE SUBJECT MATTER OF THIS GUARANTY SHALL BE IN THE STATE OR FEDERAL COURTS LOCATED WITHIN THE CITY OF ST. PETERSBURG AND COUNTY OF PINELLAS. THE FOREGOING COURTS SHALL HAVE

EXCLUSIVE JURISDICTION FOR SUCH PURPOSE AND THE GUARANTOR IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF SUCH COURTS AND IRREVOCABLY WAIVES THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF ANY SUCH ACTION OR PROCEEDING. SERVICE OF PROCESS MAY BE MADE IN ANY MANNER RECOGNIZED BY SUCH COURTS.

(c) THE GUARANTOR HEREBY KNOWINGLY, VOLUNTARILY, INTENTIONALLY, AND IRREVOCABLY WAIVES ITS RIGHT TO A JURY TRIAL WITH RESPECT TO ANY ACTION, CLAIM OR SUIT ARISING OUT OF THIS GUARANTY, OR THE VALIDITY, PERFORMANCE, OR ENFORCEMENT THEREOF, OR THE TRANSACTIONS CONTEMPLATED HEREBY. THE GUARANTOR HEREBY CERTIFIES THAT NEITHER IT NOR ANY OF ITS REPRESENTATIVES HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT IT WOULD NOT SEEK TO ENFORCE THIS WAIVER OF RIGHT TO JURY TRIAL. FURTHER, THE GUARANTOR ACKNOWLEDGES THAT SELLER RELIED ON THIS WAIVER OF RIGHT TO JURY TRIAL AS A MATERIAL INDUCEMENT TO ACCEPT THIS GUARANTY.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Guarantor has executed this Guaranty as of the date first written above.

“Guarantor”

NorthStar Group Services, Inc.

By: _____

Name: _____

Title: _____

Execution Copy

EXHIBIT B-2

FORM OF PARENT GUARANTY (NORTHSTAR)

PARENT GUARANTY

THIS GUARANTY is given this __ day of _____, 20__ by Orano USA LLC, a Delaware limited liability company (“**Guarantor**”), for the benefit of Duke Energy Florida, LLC, a Florida limited liability company (“**Company**”).

WITNESSETH:

WHEREAS, Company owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site;

WHEREAS, Company, ADP CR3, LLC, a Delaware limited liability company (“**Contractor**”), and ADP SF1 LLC, a Delaware limited liability company (“**Buyer**”), have entered into the Decommissioning Services Agreement dated as of May __, 2019 (the “**Decommissioning Agreement**”), whereby Company has engaged Contractor and Buyer to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described therein.

WHEREAS, in connection with the transactions as contemplated under the Decommissioning Agreement, Company and Buyer are parties to that certain Spent Nuclear Fuel Purchase and Sale Agreement dated as of the date hereof (the “**SNF PSA**”), whereby Buyer has purchased and acquired the Spent Nuclear Fuel, storage canisters, HLW, including Greater Than Class C waste from the CR-3 Facility as currently stored on the ISFSI, or otherwise located at the CR-3 Facility and to be stored on the ISFSI, together with certain associated liabilities and obligations. Unless otherwise defined herein, capitalized terms used in this Guaranty shall have the meanings ascribed to such terms in the Decommissioning Agreement or the SNF PSA.

WHEREAS, each of Contractor and Buyer is an indirect subsidiary of Guarantor, and Guarantor will receive direct or indirect benefits from the Decommissioning Agreement, the SNF PSA, and the Ancillary Agreements.

WHEREAS, Guarantor’s execution and delivery of this Guaranty, and the execution and delivery of a guaranty (the “**Other Parent Guaranty**”) by Northstar Group Services, Inc., a Delaware limited liability company (the “**Other Parent Guarantor**”), is a material condition to Company’s willingness to consummate the transactions as contemplated in the Decommissioning Agreement, the SNF PSA and the Ancillary Agreements.

NOW, THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby agrees as follows:

1. **GUARANTEE.** Guarantor, as an obligor and not merely as surety, absolutely, unconditionally and irrevocably guarantees to Company the full payment and performance when due of all of the obligations of Contractor and Buyer arising under the Decommissioning Agreement, the SNF PSA, the Pledge Agreement, the Parent Support Agreements, [REDACTED], the Amended and Restated LLC Agreement and the SNF Services Agreement, as amended or modified from time to time, including without limitation with respect to the Decommissioning of the CR-3 Facility and the NRC-Licensed Site (collectively, the “**Obligations**”). Guarantor agrees that if for any reason Contractor or Buyer shall fail to pay or perform any of such Obligations when due, Guarantor will (a) make any payment within thirty (30) days of having received from Company written notice of the failure to pay and a demand for payment, such payment being the same as would have been received by Company had such amount been duly paid by Contractor or Buyer in accordance with the terms of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement; or (b) upon receipt of written notice of failure to perform and a demand by Company, perform or cause to be performed any Obligation in accordance with Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement. Guarantor and Company acknowledge and agree that Guarantor and the Other Parent Guarantor, respectively, are severally (and not jointly) liable for the Obligations in accordance with the terms and conditions of this Guaranty (subject to the limitations of Article 4 hereof) and the Other Parent Guaranty (subject to the limitations of Article 4 thereof).

2. **UNCONDITIONAL OBLIGATION.** This is a guarantee of payment and performance and not of collection. The liability of Guarantor under this Guaranty is direct, irrevocable and not conditional or contingent upon the pursuit of any remedies against Contractor, Buyer, the Other Parent Guarantor, or any other person or entity, nor upon any other recourse available to Company, its successors, endorsees, transferees, or assigns; provided that the liability of Guarantor is subject to the limitations of Article 4 hereof. Guarantor waives any and all rights it may now or in the future have under law or in equity to require either that an action be brought against Contractor, Buyer, the Other Parent Guarantor, or any other person or entity as a condition to proceeding against Guarantor.

3. **ABSOLUTE OBLIGATION.** The obligations of Guarantor under this Guaranty are absolute and without regard to lack of power or authority of Contractor or Buyer to enter into the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any other circumstances which might otherwise constitute a legal or equitable discharge of a surety or guarantor. Guarantor agrees that Company and Contractor or Buyer may modify or amend the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement and that Company may delay or extend the date on which any guaranteed Obligation must be paid or performed, or release Contractor or Buyer from any guaranteed Obligation or waive any right thereunder, all without notice to or further assent by Guarantor, which shall remain bound by this Guaranty, notwithstanding any such act by Company. The obligations of Guarantor under this Guaranty shall not be affected, reduced, or impaired upon the happening of any of the following events:

- (a) the failure to give notice to Guarantor of the occurrence of a default under the terms and provisions of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, provided Company has complied with the notice requirements of the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement;
- (b) any lack of validity or enforceability of or defect or deficiency applicable to any of Contractor or Buyer in the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any other agreement or instrument executed in connection therewith;
- (c) any change in the time, manner, terms or place of payment or performance or in any other term of, all or any of the Obligations, or any other amendment, extension or waiver of or any consent to departure from the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement;
- (d) failure, omission, delay, waiver or refusal by Company to exercise, in whole or in part, any right or remedy held by Company with respect to this Guaranty, the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any transaction hereunder or thereunder;
- (e) any change in the existence, structure or ownership of Guarantor or any of Contractor or Buyer, or any voluntary or involuntary liquidation, or dissolution, or insolvency, bankruptcy, reorganization, or other similar proceeding affecting any or all of Contractor or Buyer or their respective assets; or
- (f) the merger or consolidation of Contractor or Buyer into or with any corporation or other entity, or Contractor's or Buyer's loss of its separate corporate identity or its ceasing to be an affiliate of Guarantor.

4. LIMITATION OF LIABILITY. Guarantor's obligations to perform in accordance with Article 1 hereof shall be limited to twenty five percent (25%) of any amount claimed by Company due to a failure by Contractor or Buyer to pay or perform any of the Obligations when due and shall in no event exceed an aggregate of One Hundred Thirty Five Million Dollars (\$135,000,000) (the "**Maximum Aggregate Amount**"); provided that after Contractor achieves all of the ISFSI-Only Interim End-State Conditions in accordance with the Decommissioning Agreement, Guarantor's obligations hereunder shall in no event exceed an aggregate of Thirty Five Million Dollars (\$35,000,000). Notwithstanding anything to the contrary contained herein, Guarantor's obligations to perform in accordance with Article 1 hereof: (a) shall be subject to the same limitations as limit Contractor's or Buyer's duty to perform under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, and Guarantor shall be entitled to assert the same rights, releases, defenses (excluding bankruptcy, insolvency or similar defenses), indemnities, hold harmless provisions, insurance protection, and all limitations of liability, including monetary limitations of liability against Company hereunder as Contractor or Buyer might assert against Company under the Decommissioning Agreement, the SNF PSA, or any

Ancillary Agreement; (b) shall not expand or in any way exceed the obligations of Contractor or Buyer under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement; (c) are several (and not joint and several) from Contractor, Buyer, Other Parent Guarantor or any other Person; and (d) shall not extend beyond the Termination Date.

5. WAIVER OF NOTICE. Guarantor hereby waives notice of (a) Company's acceptance and reliance on this Guaranty; (b) default or demand in the case of default, provided such notice or demand has been given to or made upon Contractor or Buyer; and (c) any indulgences, extensions or consents granted to Contractor or Buyer or any other surety. Guarantor waives promptness, diligence, presentment, demand of payment or enforcement and any other notice with respect to any of the guaranteed obligations and this Guaranty.

6. SUBROGATION RIGHTS. Any subrogation rights of Guarantor arising by reason of any payments made under this Guaranty shall be subordinate to the performance in full by Contractor or Buyer of all obligations under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, including, without limitation, payment in full of all amounts which may be owing by Contractor or Buyer to Company thereunder.

7. TERM. This Guaranty shall remain in full force and effect until the payment or completion in full of the Obligations (the "**Termination Date**").

8. EXPENSES. Guarantor agrees to pay all reasonable out-of-pocket expenses (including the reasonable fees and expenses of Company's counsel) relating to the enforcement of Company's rights hereunder in the event the Guarantor disputes its obligations under this Guaranty and it is finally determined (whether through settlement, arbitration or adjudication, including the exhaustion of all permitted appeals), that Company is entitled to receive payment of a portion of or all of such disputed amounts.

9. ASSIGNMENT. This Guaranty shall inure to the benefit of Company, its successors and permitted assigns and shall be binding upon Guarantor and its successors and permitted assigns. Neither Company nor Guarantor shall have any right to assign this Guaranty or any of their respective rights or obligations hereunder to any other Person without the prior written consent of the non-assigning party, which may be granted or withheld in the sole discretion of such non-assigning party, and any purported assignment in violation of this provision shall be null and void.

10. REPRESENTATIONS AND WARRANTIES. Guarantor hereby represents and warrants to Company that:

(a) entering into this Guaranty and performance hereunder will not (i) conflict with or result in any breach of any provision of the certificate of incorporation or bylaws of Guarantor; (ii) result in a default (or give rise to any right of termination, cancellation or acceleration) under any of the terms, conditions or provisions of any note, bond, mortgage, indenture, agreement, lease or other instrument or obligation to which Guarantor is a party or by which any of its assets may be bound; or (iii) violate any Laws applicable to Guarantor;

(b) Guarantor is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and is in good standing in each jurisdiction where the failure to be in good standing would materially and adversely affect its ability to perform its obligations under this Guaranty;

(c) the execution and delivery by Guarantor of this Guaranty, and the performance by Guarantor of its obligations hereunder (i) are within Guarantor's corporate powers, and (ii) have been duly authorized by all necessary action, (corporate or otherwise); and

(d) this Guaranty constitutes the legal, valid and binding obligation of Guarantor enforceable against Guarantor in accordance with the terms of this Guaranty, subject to applicable bankruptcy, insolvency, moratorium, and other similar Laws affecting the enforcement of creditors' rights generally and general principles of equity (whether enforcement is sought by proceedings in equity or law).

11. SEVERABILITY. The invalidity or unenforceability of any provision of this Guaranty shall not affect the validity or enforceability of the remaining provisions of this Guaranty, which shall be enforced to the greatest extent permitted by law.

12. EXERCISE OF REMEDIES. No single or partial exercise by Company or its successors or assigns of any right or remedy shall preclude any further exercise thereof.

13. WAIVERS. No delay or omission to exercise any right or power of Company shall impair any such right or power or shall be construed to be a waiver thereof. No waiver of any right of Company under this Guaranty shall be effective unless made pursuant to an instrument in writing duly executed by Company.

14. NOTICES. All notices permitted or required to be given under this Guaranty shall, unless otherwise specifically provided herein, (a) be in writing addressed to the party receiving the notice at the address set forth below or at such other address as may be designated by written notice, from time to time, to the other party, and (b) be effective upon receipt, when mailed by U.S. mail, registered or certified, return receipt requested, postage prepaid, via electronic mail, or personally delivered; provided that delivery by electronic mail is confirmed in writing (which may be by return e-mail). Notices shall be sent to the following addresses:

If to Company:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 41Q
Charlotte, NC 28202
Attn.: Chief Risk Officer
E-mail: reg.credit@duke-energy.com

with a copy (which shall not constitute notice) to:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 45A
Charlotte, NC 28202
Attn: Tracey LeRoy, Legal Counsel, Nuclear (Crystal River Unit 3)
Email: tracey.leroy@duke-energy.com

and

Morgan, Lewis & Bockius LLP
300 S. Grand Avenue, 22nd Floor
Los Angeles, CA 90071
Attn: Ingrid A. Myers
E-mail: Ingrid.myers@morganlewis.com

If to Guarantor:

Orano USA, LLC
1155 F St. NW, Suite 800
Washington, DC 20004
Attn: Michael Woods, General Counsel
E-mail: michael.woods@orano.group

with a copy (which shall not constitute notice) to:

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

15. **NO RECOURSE.** Notwithstanding anything that may be expressed or implied in this Guaranty, by its acceptance of the benefits of this Guaranty or any document or instrument delivered in connection herewith, Company acknowledges that no recourse shall be had hereunder or under the Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement or any document or instrument delivered in connection herewith or therewith, or for any claim based on, in respect of, or by reason of, such obligations or their creation, against, and no personal liability shall attach to, (a) the former, current and future equity holders, controlling persons, directors, officers, employees, agents, Affiliates (other than Contractor or Buyer), members, managers, general or limited partners, or representatives of Guarantor; or (b) any former, current or future equity holder, controlling person, director, officer, employee, agent, Affiliate (other than Contractor or Buyer), member, manager, general or limited partner, or representative of any of such Persons (such Persons, excluding, for the avoidance of doubt, Guarantor and Contractor and Buyer, each a “**Non-Recourse Party**”, and collectively the “**Non-Recourse Parties**”), whether by

or through attempted piercing of the corporate veil, by or through a claim (whether in tort, contract or otherwise) by or on behalf of Company against any Non-Recourse Party, by the enforcement of any assessment or by any legal or equitable proceeding, by virtue of any applicable Law, or otherwise. Company's rights and remedies under this Guaranty shall be the sole and exclusive remedy of Company and its Affiliates against Guarantor and the Non-Recourse Parties in respect of any liabilities or obligations arising under, or in connection with, this Guaranty, Decommissioning Agreement, the SNF PSA, or any Ancillary Agreement, or the transactions contemplated thereby or in respect of any oral representations made or alleged to be made in connection therewith. Nothing set forth in this Guaranty shall confer or give or shall be construed to confer or give to any Person (including any Person acting in a representative capacity) any rights or remedies against any Person (including any Non-Recourse Party) other than rights or remedies against Guarantor as expressly set forth herein. Company acknowledges that Guarantor is agreeing to enter into this Guaranty in reliance on the provisions set forth in this Article 15. This Article 15 shall survive the termination of this Guaranty.

16. AMENDMENT. No amendment of this Guaranty shall be effective unless made pursuant to an instrument in writing duly executed by both Company and Guarantor.

17. NO BENEFIT TO CONTRACTOR OR BUYER. This Guaranty is for the benefit of Company only and is not for the benefit of any of Contractor or Buyer. This Guaranty shall not be deemed to be a contract to make a loan, or to extend other debt financing or financial accommodation, for the benefit of any of Contractor or Buyer, in each case within the meaning of Section 365(e) of the Bankruptcy Code (11 U.S.C. § 365(e)).

18. INTEGRATION OF TERMS. This Guaranty contains the entire agreement between Guarantor and Company relating to the subject matter hereof and supersedes all oral statements and prior writing with respect hereto.

19. REINSTATEMENT. This Guaranty shall continue to be effective or be reinstated, as the case may be, if at any time any payment to or on behalf of or by Contractor or Buyer under the Decommissioning Agreement, the SNF PSA or any Ancillary Agreement, or by Guarantor under this Guaranty, is rescinded or must otherwise be returned by Company upon the insolvency, bankruptcy, reorganization, dissolution or liquidation of Contractor or Buyer or otherwise, all as though such payment had not been made.

20. GOVERNING LAW; CONSENT TO JURISDICTION; VENUE.

(a) THIS GUARANTY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF FLORIDA (WITHOUT GIVING EFFECT TO CONFLICT OF LAW PRINCIPLES) AS TO ALL MATTERS, INCLUDING MATTERS OF VALIDITY, CONSTRUCTION, EFFECT, PERFORMANCE AND REMEDIES.

(b) THE GUARANTOR AGREES THAT VENUE IN ANY AND ALL ACTIONS AND PROCEEDINGS RELATED TO THE SUBJECT MATTER OF THIS GUARANTY SHALL BE IN THE STATE OR FEDERAL COURTS LOCATED WITHIN THE CITY OF ST.

PETERSBURG AND COUNTY OF PINELLAS. THE FOREGOING COURTS SHALL HAVE EXCLUSIVE JURISDICTION FOR SUCH PURPOSE AND THE GUARANTOR IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF SUCH COURTS AND IRREVOCABLY WAIVES THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF ANY SUCH ACTION OR PROCEEDING. SERVICE OF PROCESS MAY BE MADE IN ANY MANNER RECOGNIZED BY SUCH COURTS.

(c) THE GUARANTOR HEREBY KNOWINGLY, VOLUNTARILY, INTENTIONALLY, AND IRREVOCABLY WAIVES ITS RIGHT TO A JURY TRIAL WITH RESPECT TO ANY ACTION, CLAIM OR SUIT ARISING OUT OF THIS GUARANTY, OR THE VALIDITY, PERFORMANCE, OR ENFORCEMENT THEREOF, OR THE TRANSACTIONS CONTEMPLATED HEREBY. THE GUARANTOR HEREBY CERTIFIES THAT NEITHER IT NOR ANY OF ITS REPRESENTATIVES HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT IT WOULD NOT SEEK TO ENFORCE THIS WAIVER OF RIGHT TO JURY TRIAL. FURTHER, THE GUARANTOR ACKNOWLEDGES THAT SELLER RELIED ON THIS WAIVER OF RIGHT TO JURY TRIAL AS A MATERIAL INDUCEMENT TO ACCEPT THIS GUARANTY.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Guarantor has executed this Guaranty as of the date first written above.

“Guarantor”

Orano USA LLC

By: _____

Name: _____

Title: _____

EXHIBIT C

FORM OF

SNF SERVICES AGREEMENT

BY AND BETWEEN

ADP CR3, LLC, as CONTRACTOR

AND

ADP SF1, LLC, as BUYER

Dated as of [•]

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ATTACHMENTS

- Attachment 1 – Contractor’s Insurance
- Attachment 2 – Buyer’s Insurance

SNF SERVICES AGREEMENT

THIS SNF SERVICES AGREEMENT (this “Agreement”), dated as of [•] (the “Contract Date”), is entered into by and between ADP CR3, LLC, a Delaware limited liability company (“Contractor”), and ADP SF1, LLC, a Delaware limited liability company (“Buyer”). Contractor and Buyer are referred to individually herein from time to time as a “Party,” and collectively as the “Parties.”

RECITALS

WHEREAS, Duke Energy Florida, LLC, a Florida limited liability company (“Company”) owns the CR-3 Facility located in Citrus County, Florida, including the ISFSI on the Crystal River Site.

WHEREAS, the CR-3 Facility has been permanently shut down and is currently in SAFSTOR.

WHEREAS, Company, Contractor, and Buyer entered into a Decommissioning Services Agreement, dated as of [•], 2019 (the “DSA”), pursuant to which Company has engaged Contractor to perform the activities necessary to decommission the CR-3 Facility, including the ISFSI.

Whereas, Company and Buyer entered into a Spent Nuclear Fuel Purchase and Sale Agreement (the “PSA”) pursuant to which Company has sold to Buyer (a) all Spent Nuclear Fuel and HLW located at the CR-3 Facility, including Greater Than Class C waste from the CR-3 Facility as currently stored on the ISFSI, or otherwise located at the CR-Facility and to be stored on the ISFSI; (b) the storage canisters in which the Spent Nuclear Fuel and HLW is stored on the ISFSI; and (c) the ISFSI and certain related assets.

WHEREAS, under the PSA, Company assigned to Buyer Company’s Spent Fuel Disposal Contract with the United States Department of Energy (“DOE”), including any and all claims thereunder from and after the closing of the PSA.

WHEREAS, Buyer desires for Contractor to perform certain services for Buyer in connection with Buyer’s ownership and management of Spent Nuclear Fuel, HLW, and storage canisters, and the Decommissioning of the ISFSI and related facilities, as described herein.

WHEREAS, Contractor desires to perform such services for the compensation and on the terms and conditions as set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, Buyer and Contractor agree as follows:

ARTICLE 1 DEFINITIONS

Capitalized terms used and not defined in this Agreement shall have the meanings set forth in the DSA or the PSA, as applicable.

ARTICLE 2 SCOPE OF SERVICES

During the Term of this Agreement, Contractor will do and perform all activities necessary or desirable to (collectively, the “Services”):

(a) operate and maintain the ISFSI, and store, maintain, and manage the Spent Nuclear Fuel and HLW owned by Buyer and located on the ISFSI or otherwise at the CR-3 Facility, until the last of the Spent Nuclear Fuel and HLW owned by Buyer is removed from the Crystal River Site;

(b) package the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility;

(c) when requested by Buyer and as permitted by Law, remove all Spent Nuclear Fuel and HLW owned by Buyer from the Crystal River Site and transfer such material to a storage or disposal site designated by Buyer; and

(d) once all Spent Nuclear Fuel, HLW, and Greater Than Class C Waste has been removed from Crystal River Site, complete Decommissioning of the ISFSI in accordance with the DSA.

ARTICLE 3 CONTRACTOR PERFORMANCE REQUIREMENTS

Contractor shall perform the Services in compliance with all applicable Laws and the requirements of the DSA and in conformance with Good Utility Practices. In connection with its performance of the Services, Contractor shall be responsible for:

(a) engaging and supervising all personnel required to perform the Services;

(b) negotiating, entering into, and administering, in Contractor’s name, all contracts with third parties that are necessary or desirable for the performance of the Services;

(c) procuring and furnishing all materials, equipment, services, supplies and labor necessary or desirable to perform the Services and otherwise carry out its responsibilities hereunder;

(d) filing (and maintaining) all reports and filings required by Law with respect to the ISFSI, and the Spent Nuclear Fuel and HLW therein, and paying any fees in connection therewith;

(e) maintaining an accurate record of all operations and maintenance activities related to the ISFSI, and the Spent Nuclear Fuel and HLW, and furnish, from time to time, upon the request of Buyer, such records and other information (or access thereto); and

(f) performing all such other and further acts as may be necessary to accomplish fully and perform its duties under this Agreement.

Contractor shall have discretion at all times as to the means and manner in which the Services are provided under this Agreement as long as the requirements set forth in this Agreement are satisfied. Without limiting the generality of the foregoing, Contractor, in its discretion, may delegate the performance of any part of the Services to any subcontractor, provided that Contractor will be responsible for the Services performed by each subcontractor as if such Services were performed by Contractor itself.

**ARTICLE 4
BUYER RESPONSIBILITIES**

Buyer will cooperate with and assist Contractor, and provide Contractor with correct and reliable information, as reasonably necessary for Contractor to carry out and perform the Services. In addition, Buyer shall execute powers of attorney, letters of agency and other documents as may be reasonably required for Contractor to provide the Services on behalf of Buyer.

**ARTICLE 5
COMPENSATION**

5.1 Charges. In consideration for Contractor’s provision of the Services, Buyer shall pay to Contractor an amount equal to:

(a) [REDACTED]

(b) [REDACTED]

5.2 Invoicing. Contractor shall invoice Buyer for the Charges monthly in arrears as they are incurred. Each such invoice shall be due upon receipt and payable within thirty (30) days after the invoice date. Invoices will be sent to the following address: *[Insert billing address]*. All amounts charged for the Services will be billed and paid in United States dollars. At Buyer’s request, Contractor will provide Buyer with supporting documentation, at a reasonable level of detail, to validate the accuracy of the Charges.

ARTICLE 6 TERM AND TERMINATION

6.1 Term. The term of this Agreement (the “Term”) shall commence on the Contract Date and, unless earlier terminated as provided in Section 25.1(a), shall expire upon the completion of all Services under this Agreement.

(a) Termination. This Agreement may not be terminated prior to completion of the Services without the prior written consent of Company, which consent may be granted or withheld in Company’s sole discretion.

ARTICLE 7 CONFIDENTIALITY

Any information belonging to a Party hereto, which such Party designates as confidential or proprietary, shall not be disclosed to any other person or entity by the Party receiving such information, except to the extent that disclosure is necessary for the performance of this Agreement or the DSA, required by Law, or expressly permitted with the prior written consent of the disclosing Party. Notwithstanding anything to the contrary in the foregoing, in the case of any conflict between the provisions of this Article 7 and the confidentiality obligations of the Parties hereunder, and the confidentiality provisions of the DSA and the obligations of the Parties as parties to the DSA, the provisions of the DSA shall prevail.

ARTICLE 8 AUDIT

Buyer shall have the right to audit records of Contractor to verify Contractor’s compliance with this Agreement, including the Charges hereunder, on such dates and times as Buyer may reasonably request. Buyer’s auditors shall comply with Contractor’s reasonable security requirements and conduct such audits in a manner designed to minimize disruption to Contractor’s business. Notwithstanding the foregoing, if Company or its designee takes over Contractor in accordance with the DSA and Ancillary Agreements, or otherwise assumes this Agreement, Buyer’s rights to audit records of Contractor shall be limited to verification of the Charges, and any third party auditors or representatives performing such audits shall, as a condition to receiving access to the relevant information, enter into a confidentiality agreement with Company or its designee on customary terms.

ARTICLE 9 INSURANCE

9.1 Contractor’s Insurance. Contractor shall maintain the insurance coverages as required under the DSA, and shall obtain all named insured endorsements and waivers of subrogation and provide all written confirmations in accordance with Attachment 1.

9.2 Buyer’s Insurance. Buyer shall maintain the insurance coverages as required under Attachment 2, and shall obtain all named insured endorsements and waivers of subrogation and provide all written confirmations in accordance with Attachment 2.

ARTICLE 10

[REDACTED]

[REDACTED]

**ARTICLE 11
LIABILITY**

11.1 LIMITATION ON CONSEQUENTIAL DAMAGES. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY (OR TO ANY OTHER PERSON CLAIMING THROUGH THE OTHER PARTY OR UNDER THIS AGREEMENT) PURSUANT TO THIS AGREEMENT OR UNDER ANY CAUSE OF ACTION RELATED TO THE SUBJECT MATTER OF THIS AGREEMENT, FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL LOSSES OR DAMAGES, OR ANY LOSS, DAMAGE OR OTHER LIABILITY OTHERWISE EQUIVALENT TO OR IN THE NATURE OF SUCH LOSSES OR DAMAGES, OR ANY LOSS OF PROFITS, LOSS OF REVENUE, LOSS OF USE, DOWNTIME COSTS, LOSS OF OPPORTUNITY OR GOODWILL, LOSS OF PRODUCTIVITY, LOSS OF OR REDUCTION IN BONDING CAPACITY, LOSSES DUE TO THEORIES SUCH AS CUMULATIVE IMPACT, COST OF PURCHASED OR REPLACEMENT POWER, COST OF CAPITAL OR CLAIMS OF CUSTOMERS, WHETHER SUCH LIABILITY ARISES IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), MISREPRESENTATION (INCLUDING NEGLIGENT MISREPRESENTATION), STRICT LIABILITY OR OTHERWISE; PROVIDED, HOWEVER, THAT THE LIMITATION OF LIABILITY UNDER THIS SECTION 11.1 SHALL NOT APPLY TO CONTRACTOR'S INDEMNIFICATION OBLIGATIONS UNDER THIS AGREEMENT FOR THIRD PARTY CLAIMS.

11.2 Force Majeure. Each Party's performance of its obligations hereunder will be excused if and to the extent that performance is prevented by a Force Majeure event. Each Party will use commercially reasonable efforts to remedy any such event as soon as possible, and performance will resume as soon as practicable after the Force Majeure event no longer exists.

ARTICLE 12 MISCELLANEOUS PROVISIONS

12.1 Amendment and Modification. Subject to applicable Law, this Agreement may be amended, modified or supplemented only by written agreement of Buyer and Contractor.

12.2 Waiver of Compliance; Consents. Except as otherwise provided in this Agreement, any failure of a Party to comply with any obligation, covenant, agreement or condition herein may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting such waiver, but such waiver of such obligation, covenant, agreement or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent failure to comply therewith.

12.3 Notices. All notices and other communications hereunder shall be in writing and shall be deemed given if delivered personally or by electronic mail (provided that delivery by electronic mail is confirmed in writing (which may be by return electronic mail), or mailed by overnight courier or registered or certified mail (return receipt requested), postage prepaid, to the recipient Party at its address (or at such other address or facsimile number for a Party as shall be specified by like notice; provided, however, that notices of a change of address shall be effective only upon receipt thereof):

12.3.1 if to Contractor, to:

ADP CR3, LLC
c/o Accelerated Decommissioning Partners, LLC
17101 Preston Road, Suite 115
Dallas, TX 75248
Attn: Scott State, CEO
E-mail: ssstate@northstar.com

with a copy (which shall not constitute notice) to:

NorthStar Group Services, Inc.
35 Corporate Drive, Suite 1155
Trumbull, CT 06611
Attn: Gregory G. DiCarlo, Vice President & General Counsel
E-mail: gdicarlo@northstar.com

Orano USA, LLC
1155 F St. NW, Suite 800
Washington, DC 20004
Attn: Michael Woods, General Counsel
E-mail: michael.woods@orano.group

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

12.3.2 if to Buyer, to:

ADP SF1, LLC
c/o Accelerated Decommissioning Partners, LLC
17101 Preston Road, Suite 115
Dallas, TX 75248
Attn: Scott State, CEO
E-mail: ssate@northstar.com

with a copy (which shall not constitute notice) to:

NorthStar Group Services, Inc.
35 Corporate Drive, Suite 1155
Trumbull, CT 06611
Attn: Gregory G. DiCarlo, Vice President & General Counsel
E-mail: gdicarlo@northstar.com

Orano USA, LLC
1155 F St. NW, Suite 800
Washington, DC 20004
Attn: Michael Woods, General Counsel
E-mail: michael.woods@orano.group

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

12.4 Assignment. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns, but neither Party may assign this Agreement or its rights under this Agreement, including by operation of law, without the prior written consent of the other Party, such consent not to be unreasonably withheld, delayed or conditioned. Any assignment in contravention of the foregoing sentence shall be null and void and without legal effect on the rights and obligations of the Parties. Notwithstanding anything to the contrary in the foregoing, Contractor may, in connection with the termination of the DSA in accordance with Article 15 thereof, assign this Agreement without consent of Buyer to Company or its designee, including by operation of law, subject to the agreement in writing of Company or such designee to assume Contractor's rights and obligations hereunder arising after such assignment.

12.5 Third Party Beneficiaries. Company and its successors and assigns are intended third party beneficiaries of this Agreement, and may enforce its rights under the provisions of this Agreement against Contractor and Buyer. Except for Company and its successors and assigns, this Agreement does not, and is not intended to, confer upon any other Person except the Parties any rights, interests, obligations or remedies hereunder.

12.6 Governing Law. This Agreement shall be governed by and construed in accordance with the Law of the State of Florida (without giving effect to conflict of law principles) as to all matters, including matters of validity, construction, effect, performance and remedies.

12.7 Entire Agreement. This Agreement, including the Attachments hereto, embody the entire agreement and understanding of the Parties in respect of the transactions contemplated by this Agreement, and shall supersede all previous oral and written communications between the Parties in connection with the negotiation and execution of this Agreement.

12.8 No Joint Venture. Nothing in this Agreement creates or is intended to create an association, trust, partnership, joint venture or other entity or similar legal relationship among the Parties, or impose a trust, partnership or fiduciary duty, obligation, or liability on or with respect to the Parties.

12.9 Change in Law. If and to the extent that any Laws or regulations that govern any aspect of this Agreement shall change, so as to make any aspect of this transaction unlawful, then the Parties agree to make such modifications to this Agreement as may be reasonably necessary for this Agreement to accommodate any such legal or regulatory changes, without materially changing the overall benefits or consideration expected hereunder by either Party.

12.10 Severability. Any term or provision of this Agreement that is held invalid or unenforceable in any situation shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation; provided, however, that the remaining terms and provisions of this Agreement may be enforced only to the extent that such enforcement in the absence of any invalid terms and provisions would not result in (a) deprivation of a Party of a material aspect of its original bargain upon execution of this Agreement, (b) unjust enrichment of a Party, or (c) any other manifestly unfair or inequitable result.

12.11 Survival. Articles 7, 8, 10, 11 and 12, and any other provision of this Agreement which contemplates performance subsequent to any termination or expiration of this Agreement, will survive any termination or expiration of this Agreement and continue in full force and effect.

12.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

{Remainder of this page intentionally left blank}

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized officers as of the date first written above.

CONTRACTOR:

ADP CR3, LLC

By: _____

Name: _____

Title: _____

BUYER:

ADP SF1, LLC

By: _____

Name: _____

Title: _____

ATTACHMENT 1

CONTRACTOR'S INSURANCE

[Insert required insurance coverage]

ATTACHMENT 2

BUYER'S INSURANCE

[Insert required insurance coverage]

EXHIBIT D

FORM OF AMENDED AND RESTATED LLC AGREEMENT

AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT

OF

ADP CR3, LLC

**AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT
OF
ADP CR3, LLC**

This Amended and Restated Limited Liability Company Agreement (the “Agreement”) of ADP CR3, LLC (the “Company”) dated as of [●], is entered into by Accelerated Decommissioning Partners, LLC, the sole member of the Company (the “Member”).

RECITALS

WHEREAS, the Company was formed on February 27, 2019 under the Delaware Limited Liability Company Act (as amended from time to time, the “Act”) pursuant to the execution and filing of a Certificate of Formation with the office of the Secretary of State of the State of Delaware, under the name “ADP-1, LLC”.

WHEREAS, on or before the date hereof, the Company will change its name to “ADP CR3, LLC” by filing an amendment to its Certificate of Formation with the office of the Secretary of State of the State of Delaware.

WHEREAS, effective as of February 27, 2019, the Member entered into the Limited Liability Company Agreement of ADP-1, LLC (the “Initial LLC Agreement”).

WHEREAS, the Member is the sole Member of the Company and the sole owner of all outstanding equity interests in the Company.

WHEREAS, Duke Energy Florida, LLC, a Florida limited liability company (“DEF”), owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site.

WHEREAS, the Company has entered into the Crystal River Unit 3 Decommissioning Services Agreement (the “Decommissioning Agreement”), dated as of [●], 2019, as amended from time to time, by and among the Company, an Affiliate of the Company, ADP SF1, LLC (“Buyer”), and DEF, whereby DEF has engaged the Company and Buyer to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site (all as defined in the Decommissioning Agreement). Capitalized terms used and not defined in this Agreement shall have the meanings provided in the Decommissioning Agreement.

WHEREAS, in connection with the transactions as contemplated under the Decommissioning Agreement, DEF and Buyer have entered into the Spent Nuclear Fuel Purchase and Sale Agreement dated of even date herewith (the “SNF PSA”), whereby DEF will sell and Buyer will acquire the ISFSI located at the CR-3 Facility and the Spent Nuclear Fuel and High Level Waste from the CR-3 Facility stored on the ISFSI, as more particularly described therein.

WHEREAS, it is a condition to the willingness of DEF to enter into the Decommissioning Agreement and the SNF PSA that the Member enter into this Agreement.

WHEREAS, in connection with the Closing of the SNF PSA and commencement of the Decommissioning (as defined in the Decommissioning Agreement), the Member desires to amend and restate the Initial LLC Agreement by entering into this Agreement to set forth the rights and obligations of the Member, and to provide for the rights of the Independent Manager (as defined below).

NOW, THEREFORE, the Member, by execution of this Agreement, hereby amends and restates the Initial LLC Agreement in its entirety, and the Member and the Independent Manager hereby agree as follows:

SECTION 1. LIMITED LIABILITY COMPANY AGREEMENT. This Agreement shall constitute the “limited liability company agreement” of the Company within the meaning of the Delaware Limited Liability Company Act (the “Act”) for all purposes including, without limitation, for classification of the Company as a “domestic eligible entity” that is disregarded as an entity separate from its owner for federal and all relevant state income tax purposes.

SECTION 2. THE COMPANY

2.1 Formation. The Company was organized as a limited liability company pursuant to the provisions of the Act on February 27, 2019. Simultaneously with the execution of the Initial LLC Agreement, the Member was admitted as the sole member of the Company. The rights and liabilities of the Member shall be as provided in the Act as the same may be modified by the terms and provisions of this Agreement.

2.2 Name. The name of the Company is ADP CR3, LLC, and the business of the Company shall be conducted under that name or under such other name, if any, as the Manager shall determine.

2.3 Business. The Company may carry on any lawful business, purpose or activity consistent with its purposes to enter into the Decommissioning Agreement and the Ancillary Agreements (as defined in the Decommissioning Agreement), to Decommission the CR-3 Facility and the NRC-Licensed Site, and to otherwise perform all of the obligations of the Company under the Decommissioning Agreement and other matters reasonably related thereto, in compliance with the representations, warranties and covenants in Section 9. Subject to the foregoing, the Company shall possess and may exercise all the powers and privileges granted by the Act or by any other law, together with any powers incidental thereto, so far as such powers and privileges are necessary or convenient to the conduct, promotion or attainment of the business, purposes or activities of the Company.

2.4 Principal Place of Business; Registered Agent and Office. The principal place of business of the Company shall be located at 17101 Preston Road, Suite 115, Dallas, TX, 75248, or such other place as the Manager may from time to time determine. The registered agent for service of process and the registered office of the Company in the State of Delaware shall be Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. The Company may also have offices at such other places within or without the State of Delaware as the Manager may from time to time determine or the business of the Company may require.

2.5 Title to Property. All property owned by the Company, whether real or personal, tangible or intangible, shall be deemed for all purposes to be owned by the Company, and no Member, individually, shall have any interest in such property. Title to all such property shall be held in the name of the Company.

2.6 Term. The term of existence of the Company shall commence upon the date of the filing of the Certificate with the office of the Secretary of State of the State of Delaware and shall continue until the earlier of (i) the date on which the Company is dissolved and its affairs wound up in accordance with the provisions of this Agreement or the Act, and (ii) such earlier date as dissolution is required pursuant to the Act.

2.7 Fiscal Year. The Fiscal Year of the Company for accounting and tax purposes shall begin on January 1 and end on December 31 of each year, except for the short taxable years in the years of the Company's formation and termination and as otherwise required by the Code.

2.8 Liability of Member, Manager and Certain Other Persons.

(a) Neither (i) the Member, (ii) the Manager, nor (iii) the Independent Manager shall have any liability under this Agreement or under the Act except as provided herein or as required by the Act. Except as required by the Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and neither (i) the Member, (ii) the Manager, nor (iii) the Independent Manager, shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a Member or acting as the Manager or the Independent Manager of the Company. The Member shall be liable to the Company for the capital contributions specified in Section 3.1 and as may otherwise be required pursuant to the Act. Neither (i) the Member, (ii) the Manager, nor (iii) the Independent Manager, shall be liable for any debts, obligations and liabilities, whether arising in contract, tort or otherwise, of any other Member or the Manager or the Independent Manager. The Member shall not be required to loan the Company any funds.

(b) Any expenses incurred by the Member on behalf of the Company shall be borne by the Company and the Member shall be reimbursed by the Company for such expenses.

2.9 Reliance by Third Parties. Persons dealing with the Company are entitled to rely conclusively upon the power and authority of the Manager as herein set forth in this Agreement.

SECTION 3. CAPITAL

3.1 Capital Contributions. The Member shall be obligated to make only such capital contributions to the Company as the Member shall agree to in writing. The Member shall not be obligated to make any contribution to capital of the Company other than as specified in this Section 3.1. The Member shall not be obligated to restore any deficit capital account balance.

3.2 Rights of Member in Capital. The Member shall have no right to distributions or to the return of any contribution to the capital of the Company except (i) for distributions in accordance with Section 5 or (ii) upon dissolution of the Company.

SECTION 4. ALLOCATIONS OF PROFITS AND LOSSES. Income, gain, loss, deduction or credit (or any item thereof) of the Company shall be allocated 100% to the Member.

SECTION 5. DISTRIBUTIONS. Distributions of Distributable Cash shall be made to the Member in the discretion of the Manager.

SECTION 6. MANAGEMENT AND OPERATIONS

6.1 Management by Manager.

(a) Subject to Section 6.5 and Section 9.1, the management of the Company shall be vested exclusively in the Manager. The Manager shall have the authority to delegate its powers to any third parties, who shall have such titles as the Manager shall designate. The Member shall be the initial manager (the “Manager”).

(b) Subject to Section 6.5 and Section 9.1, the Manager shall have the power on behalf and in the name of the Company to carry out any and all of the objects and purposes of the Company contemplated by Section 2.3 and to perform all acts which they may deem necessary or advisable in connection therewith. The Manager may appoint any person to act as an agent on behalf of the Company.

(c) The Member agrees that all determinations, decisions and actions made or taken by the Manager in accordance with this Agreement shall be conclusive and absolutely binding upon the Company, the Member and its respective successors, assigns and personal representatives.

6.2 Acts of Manager. Subject to the restrictions set forth in Section 6.5, the Manager is the agent of the Company for the purpose of its business, and the acts of the Manager in carrying on the usual business of the Company shall bind the Company unless (i) the Manager has in fact no authority to act on behalf of the Company in the particular matter and (ii) the person with whom the Manager is dealing has knowledge of the fact that the Manager has no such authority.

6.3 Expenses. The Company will pay, or will reimburse the Manager for, all costs and expenses arising in connection with the organization and operations of the Company.

6.4 Independent Manager. In accordance with the Decommissioning Agreement, until the date on which the Company has achieved all of the End-State Conditions, (i) the Member shall cause the Company to at all times have appointed one (1) individual designated by DEF to act as the “Independent Manager” of the Company; and (ii) neither the Company, the Manager nor the Member shall be authorized to remove or replace the Independent Manager. If DEF removes or replaces the Independent Manager, DEF shall designate a successor Independent Manager by providing the Company with two (2) days’ prior written notice of the identity of such successor Independent Manager. The successor Independent Manager shall execute a counterpart to this Agreement and upon the delivery of the executed counterpart to the Company, shall be deemed appointed by DEF as the Independent Manager. All right, power and authority of the Independent Manager shall be limited to the extent necessary to exercise those rights and perform those duties specifically set forth in this Agreement for the Independent

Manager, including those rights set forth in this Section 6.4. The Independent Manager shall not have any duties, fiduciary or otherwise, to the Company, the Manager or any Member, and shall not have any duty to consider the interests of, the Company, the Manager, any Member of the Company, any other Affiliates of the Company, or any group of Affiliates of which the Company is a party, in connection with the business and affairs of the Company, or any consent or approval given or withheld pursuant to this Agreement. The Independent Manager is a “manager” within the meaning of Section 18-101(10) of the Act and in no event shall the Independent Manager be appointed as an officer of the Company, nor shall he or she be authorized by the Company, the Member or the Manager to execute any documents on behalf of the Company. The initial Independent Manager shall be [●].

6.5 Restricted Actions Requiring Independent Manager Approval. Until the date on which the Company has achieved all of the End-State Conditions, the Company shall not be authorized to take any action in connection with the following matters set forth in this Section 6.5, (the “Restricted Actions”) without the approval of the Independent Manager. Except in connection with the mutual agreement of the Company and DEF to return the CR-3 Facility to SAFSTOR in accordance with Section 8.9 of the Decommissioning Agreement following the occurrence of a SAFSTOR Condition, the Company shall, prior to taking any Restricted Action, give the Independent Manager at least five (5) Business Days prior written notice of the proposed Restricted Action, together with reasonable documentation and information related to such action, and promptly respond to any reasonable additional inquiries by the Independent Manager in connection therewith, so as to allow the Company Manager to make a reasoned and informed decision regarding the Restricted Action. The Restricted Actions are:

- (a) filing or consenting to the filing of any petition, either voluntary or involuntary, to take advantage of any applicable insolvency, bankruptcy, liquidation or reorganization statutes;
- (b) making any filing or submittal with the NRC voluntarily electing SAFSTOR;
- (c) filing or consenting to dissolve the Company;
- (d) amending or terminating the SNF Services Agreement, by and between the Company and ADP SF1, LLC dated as of [●];
- (e) taking any action that is inconsistent with Section 9 below; or
- (f) taking any action in furtherance of the foregoing.

6.6 Officers.

(a) The Manager may appoint officers at any time. The officers of the Company, if deemed necessary by the Manager, may include a chief executive officer, a chief nuclear officer, a president, one or more vice presidents, secretary and one or more assistant secretaries, a chief financial officer, and a treasurer (and one or more assistant treasurers). Any individual may hold any number of offices. The officers shall exercise such powers and perform

such duties as specified in this Agreement and as shall be determined from time to time by the Manager.

(b) Subject to the rights, if any, of an officer under a contract of employment, any officer may be removed, either with or without cause, by the Manager at any time. Any officer may resign at any time by giving written notice to the Company. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Company under any contract to which the officer is a party. A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in this Agreement for regular appointments to that office.

SECTION 7. BOOKS AND RECORDS; ACCOUNTING; BUDGETS; FINANCIAL STATEMENTS; BANK ACCOUNTS

7.1 Books and Records. The books and records of the Company shall be kept at the principal office of the Company.

7.2 Method of Accounting. The Company's books of accounts shall be maintained in accordance with federal income tax accounting principles utilizing a method of accounting, preferably the cash method, chosen by the Manager after consultation with an accountant.

7.3 Annual Statements. Following the end of the fiscal year, the Company shall prepare and deliver to the Member a balance sheet and income statement of the Company as of the end of such year, and a related statement of cash flows of the Company for such year, together with appropriate notes to such financial statements, and in each case setting forth in comparative form the corresponding figures for the preceding fiscal year and for the budget for the fiscal year just completed. At the same time, the Company shall deliver to the Member a report indicating the Member's share of all items of income, gain, loss, deduction and credit of the Company for such fiscal year for financial reporting purposes and any other financial information related to the Company which is reasonably requested by the Member for federal income tax purposes. The Company also shall provide similar information for state and local tax purposes upon request by the Member.

7.4 Bank Accounts. The Company shall maintain appropriate accounts at one or more financial institutions for all funds of the Company as determined by the Manager. Such accounts shall be used solely for the business of the Company. Withdrawals from such accounts shall be made only upon the signature of those persons authorized by the Manager.

SECTION 8. TAX MATTERS

8.1 Tax Returns. The Manager shall cause any federal, state or local income tax returns of the Company to be prepared and filed on behalf of the Company, and it shall cause copies of such returns to be furnished to the Member.

8.2 Disregarded Entity for Federal and State Income and Franchise Tax Purposes. The Member intends that the Company shall be treated as a "domestic eligible entity" that is

disregarded as an entity separate from its owner (a “Disregarded Entity”) for federal, state and local income and franchise tax purposes and shall take all reasonable action, including the amendment of this Agreement and the execution of other documents but without changing the economic relationships created by, or the essential terms of, this Agreement, as may be reasonably required to qualify for and receive treatment as a Disregarded Entity for federal income tax purposes.

SECTION 9. SPECIAL PURPOSE BANKRUPTCY REMOTE ENTITY

9.1 Compliance with Requirements. Notwithstanding anything to the contrary contained herein, until the date on which the Company has achieved all of the End-State Conditions, the Company shall at all times comply with the following requirements:

(a) the Company shall not own any asset or property other than personal property necessary for the performance of its obligations under the Decommissioning Agreement and the Ancillary Agreements to which it is a party;

(b) the Company shall not engage in any business other than entering into the Decommissioning Agreement, the Ancillary Agreements to which it is a party, and the performance of its obligations thereunder, including the Decommissioning of the CR-3 Facility;

(c) the Company shall not enter into any contract or agreement with any Affiliate of the Company, except (i) for receiving any capital contributions from its Member; or (ii) as permitted by the Decommissioning Agreement, and then only upon terms and conditions that are intrinsically fair, commercially reasonable, and no less favorable to the Company than would be available on an arms-length basis with third parties that are not an Affiliate of the Company;

(d) the Company shall not make any loans or advances to any third party (including any Affiliate or constituent party), and shall not acquire obligations or securities of its Affiliates;

(e) the Company shall remain solvent and shall pay its debts and liabilities from its assets;

(f) the Company shall observe organizational formalities and preserve its existence, and: (i) shall comply with the provisions of its organizational documents, including this Agreement; and (ii) unless the Independent Manager consents, shall not, and shall not be authorized to, modify, alter, supplement, amend or otherwise change, this Agreement or any other organizational documents of the Company;

(g) the Company shall file its own tax returns, if applicable, and shall not file a consolidated federal income tax return with any other Person except to the extent that the Company is required to file consolidated tax returns by Law;

(h) the Company shall maintain all of its books, records, financial statements and bank accounts separate from those of its Affiliates and any other Person

(i) the Company shall maintain separate financial statements, showing its assets and liabilities separate and apart from those of any other Person and not have its assets listed on any financial statement of any other Person; except that the Company's assets may be included in a consolidated financial statement of an Affiliate provided an appropriate notation is made on such consolidated financial statements to indicate the separateness of the Company from such Affiliate and to indicate that the Company's assets and credit are not available to satisfy the debts and other obligations of such Affiliate or any other Person;

(j) the Company shall at all times hold itself out to the public as a legal entity separate and distinct from any other Person (including the Member, the Manager or any Affiliate of the Company or the Member or the Manager, shall correct any known misunderstanding regarding its status as a separate entity, shall conduct business in its own name, shall not identify itself or any of its Affiliates as a division or department or part of the other and shall, to the extent reasonably necessary for the operation of its business, maintain and utilize separate stationery, invoices and checks bearing its own name; provided, however, that the foregoing is not intended to prohibit the Company's treatment as a "disregarded entity" for tax purposes;

(k) the Company shall maintain adequate capital for the normal obligations reasonably foreseeable in a business of its size and character and in light of its contemplated business operations;

(l) none of the Company, the Manager nor the Member shall seek or effect the liquidation, dissolution, winding up, consolidation, merger or other form of corporate reorganization, in whole or in part, of the Company;

(m) the Company shall not commingle any of its funds and other assets with those of any Person, including its Member or the Manager or any other Affiliate of the Company, and shall hold all of its assets in its own name;

(n) the Company shall maintain its assets in such a manner that it will not be costly or difficult to segregate, ascertain or identify its individual assets from those of any Person, including the Member, the Manager or any other Affiliate of the Company;

(o) the Company shall not assume or guarantee or become obligated for the debts of any other Person and shall not hold itself out to be responsible for or have its credit available to satisfy the debts or obligations of any other Person;

(p) the Company shall not incur any indebtedness for borrowed money other than unsecured, subordinated indebtedness from Affiliates for the purpose of complying with its obligations under the Decommissioning Agreement and Ancillary Agreements, subordinated on terms reasonably satisfactory to DEF;

(q) the Member of the Company shall not have any right to resign and no additional members shall be admitted to the Company;

(r) to the fullest extent permitted by law, the Manager and the Member shall irrevocably waive any right or power that it might have to cause the Company or any of its assets to be partitioned, to cause the appointment of a receiver for all or any portion of the assets of the

Company, to compel any sale of all or any portion of the assets of the Company pursuant to any applicable Law, or to file a complaint or to institute any proceeding at law or in equity to cause the dissolution, liquidation, winding up or termination of the Company;

(s) the Company shall conduct its business so that the assumptions made with respect to the Company in the opinion issued to DEF by Pillsbury Winthrop Shaw Pittman LLP on [●] (the “Insolvency Opinion”) shall be true and correct in all respects, to the fullest extent permitted by law, and shall comply with or cause the compliance with: (i) all of the facts and assumptions (whether regarding the Company or any other Person) set forth in the Insolvency Opinion; (ii) all of the representations, warranties and covenants in this Section 9; and (iii) all of the organizational documents of the Company;

(t) the Company shall not permit any Affiliate or the Member to independently access the Company’s bank accounts;

(u) the Company shall pay its own liabilities and expenses, including the salaries of its employees from its own funds, and shall maintain a sufficient number of employees (as determined in good faith by the Member) in light of its contemplated business operations;

(v) the Company shall compensate each of its consultants and agents from its own funds for services provided to it and pay from its own assets all obligations of any kind incurred;

(w) the Company shall allocate fairly and reasonably any overhead expenses that are shared with its Member or any other Affiliate, including shared office space;

(x) the Company shall not pledge its assets for the benefit of any other Person; and

(y) except as contemplated in the Decommissioning Agreement, the SNF PSA or the Ancillary Agreements, the Company’s obligations shall not be guaranteed by any Affiliate, including any Member.

9.2 No Third Party Beneficiaries. DEF and its successors and assigns will be intended third party beneficiaries of this Agreement, and may enforce the provisions of this Agreement against the Company, the Manager and the Member. Except for DEF and its successors and assigns, none of the provisions of this Agreement shall be for the benefit of or enforceable by any creditor of the Company or any of its Affiliates, including the Member.

SECTION 10. EXCULPATION AND INDEMNIFICATION

10.1 No Liability. To the fullest extent permitted by applicable law, neither the Member, the Manager, nor any Independent Manager, nor any officer of the Company, nor any officer, director, employee, agent or Affiliate of the foregoing (collectively, the “Covered Persons”), shall be liable to the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred

on such Covered Person by this Agreement, except that a Covered Person shall be liable for any such loss, damage or claim incurred by reason of such Covered Person's gross negligence or willful misconduct. The Member and the Company recognize that this provision shall relieve a Covered Person from any and all liabilities arising out of or resulting from any ordinary negligence by such Covered Person.

10.2 Indemnification. To the fullest extent permitted by applicable law, the Company shall indemnify a Covered Person for any liabilities, expenses (including reasonable legal and attorney's fees), judgements, fines, losses, damages or claims incurred by such Covered Person by reason of (or arising as a result of) any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this Agreement, except that no Covered Person shall be entitled to be indemnified in respect of any liability, expense, loss, damage or claim incurred by such Covered Person by reason of such Covered Person's gross negligence or willful misconduct with respect to such acts or omissions. No Covered Person shall be personally liable for the Company's indemnification obligations pursuant to this Section 10.

10.3 Advancement of Expenses. To the fullest extent permitted by applicable law, expenses (including legal fees) incurred by a Covered Person defending any claim, demand, action, suit or proceeding (including any such action that is threatened against the Covered Person) shall be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding and without any determination as to the Covered Person's ultimate entitlement to indemnification, upon receipt by the Company of an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined that the Covered Person is not entitled to be indemnified as authorized in this Section 10.

10.4 Reliance. A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such other Person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company, including information, opinions, reports or statements as to the value and amount of the assets, liabilities, or any other facts pertinent to the existence and amount of assets from which distributions to the Member might properly be paid.

10.5 Rights of Covered Persons. The provisions of this Agreement, to the extent that they restrict or eliminate the duties and liabilities of a Covered Person to the Company or its members otherwise existing at law or in equity, are agreed by the parties hereto to replace such other duties and liabilities of such Covered Person. The right to indemnification and the advancement of expenses conferred in this Section 10 shall not be exclusive of any other right which a Covered Person may have or hereinafter acquire under law (common or statutory), this Agreement or approved by the Member or otherwise.

10.6 Survival. This Section 10 shall survive any termination of this Agreement. If any portion of this Section 10 shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify and hold harmless the Covered Person as to liabilities, expenses (including reasonable legal and attorney's fees), judgements,

finances, losses, damages, claims, costs or amounts paid in settlement with respect to any proceeding to the full extent permitted by the applicable portion of this Section 10 that shall not have been invalidated and to the fullest extent permitted by applicable law.

SECTION 11. TRANSFER OF INTERESTS; RESIGNATION OF MEMBER

11.1 Transfer. Until the date on which the Company has achieved all of the End-State Conditions, the Member shall not have any right to sell, transfer, assign, exchange, mortgage, pledge, grant a security interest in, or otherwise dispose of or encumber all or any part of his interest in the Company except with the prior written consent of the Independent Manager or as expressly contemplated in the Pledge Agreement dated of even date herewith between the Company and DEF. Any permitted transferee of the Member's interest shall be admitted as a member of the Company upon the transferee's execution of an instrument signifying the transferee's agreement to be bound by the terms and conditions of this Agreement and assuming all obligations of the Member hereunder.

11.2 Resignation; Withdrawal of Interests of Member. Until the date on which the Company has achieved all of the End-State Conditions: (a) the Member may not resign; and (b) the interest of a Member in the Company may not be withdrawn from the Company.

SECTION 12. DISSOLUTION OF THE COMPANY

12.1 Dissolution of the Company. Subject to Section 6.5 and Section 9.1, the Company shall be dissolved upon a written action of the Member or upon the happening of such other events as result in a dissolution of the Company under the Act. In the event of dissolution, the Company shall commence an orderly winding-down process. The continuing operation of the Company's business shall be confined to those activities reasonably necessary to wind up the Company's affairs, discharge its obligations, and preserve and distribute its assets.

(a) Subject to the foregoing, the Bankruptcy of the Member shall not cause the Member to cease to be a member of the Company and upon the occurrence of such an event, the Company shall continue without dissolution. For purposes of this Section 12.1, "Bankruptcy" shall mean, with respect to any Person, if such Person (i) makes an assignment for the benefit of creditors, (ii) files a voluntary petition in bankruptcy, (iii) is adjudged a bankrupt or insolvent, or has entered against it an order for relief, in any bankruptcy or insolvency proceedings, (iv) files a petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, (v) files an answer or other pleading admitting or failing to contest the material allegations of a petition filed against it in any proceeding of this nature, (vi) seeks, consents to or acquiesces in the appointment of a trustee, receiver or liquidator of the Person or of all or any substantial part of its properties, or (vii) if 120 days after the commencement of any proceeding against the Person seeking reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, if the proceeding has not been dismissed, or if within 90 days after the appointment without such Person's consent or acquiescence of a trustee, receiver or liquidator of such Person or of all or any substantial part of its properties, the appointment is not vacated or stayed, or within 90 days after the expiration of any such stay, the appointment is not vacated. The foregoing definition of "Bankruptcy" is intended to replace and

shall supersede and replace the definition of “Bankruptcy” set forth in Sections 18-101(1) and 18-304 of the Act.

12.2 Distributions in Liquidation. In the event of the dissolution of the Company as provided for in Section 12.1, the proceeds of liquidation of the Company’s assets, and any assets that the Manager determines are to be distributed in kind, shall be applied as follows:

(a) the debts, liabilities and obligations of the Company, other than debts to the Member, and the expenses of liquidation (including legal and accounting expenses incurred in connection therewith), up to and including the date that distribution of the Company’s assets to the Member has been completed, shall first be satisfied (whether by payment or by making reasonable provision for payment thereof);

(b) such debts as are owing to the Member shall next be paid or provided for;
and

(c) the remaining proceeds, or assets to be distributed in kind, shall be distributed to the Member.

12.3 Certificate of Cancellation. As soon as possible (but in no event later than 90 days) following the completion of the winding up of the Company, the Manager (or any other appropriate representative of the Company) shall execute a certificate of cancellation in the form prescribed by the Act and shall file the same with the office of the Secretary of State of the State of Delaware.

12.4 Liquidating Statement. The Member shall be furnished with a statement that shall set forth the assets and liabilities of the Company as of the date of complete liquidation.

SECTION 13. WAIVER OF PARTITION; NATURE OF INTEREST. Except as otherwise expressly provided in this Agreement, to the fullest extent permitted by law, each of the Member, the Manager and the Independent Manager hereby irrevocably waives any right or power that such Person might have to institute any proceeding at law or in equity to cause the dissolution, liquidation, winding up or termination of the Company. The Member shall not have any interest in any specific assets of the Company, and the Member shall not have the status of a creditor with respect to any distribution pursuant to Section 5. The interest of the Member in the Company is personal property.

SECTION 14. MISCELLANEOUS

14.1 Amendment. Subject to Section 6.5 and Section 9.1, this Agreement may be amended by a written action of the Member.

14.2 Notices. Any notices required to be delivered under this Agreement shall be delivered in accordance with the provisions of Section 16.3 of the Decommissioning Agreement, and using the addresses as provided therein (in the case of the Manager, addressed to the Manager at the address for the Company set forth therein, and in the case of the Independent Manager, addressed to the Independent Manager at the address for DEF set forth therein).

14.3 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware (without regard to principles of conflict of laws) applicable to contracts made and to be performed therein.

14.4 Severability. Any provision hereof which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which may render any provision hereof void or unenforceable in any respect.

14.5 Headings. The headings and captions in this Agreement are for convenience of reference only and shall not in any way affect the meaning or interpretation of any of the terms or provisions hereof.

14.6 Binding Agreement. Notwithstanding any other provision of this Agreement, the member agrees that this Agreement, including Section 2.3, Section 6.1, Section 6.2, Section 6.4, Section 6.5, Section 9, Section 10, Section 11, Section 12, Section 13, Section 14.1, and this Section 14.6, constitutes a legal, valid and binding agreement of the Member, and is enforceable against the Member by DEF, in accordance with its terms.

14.7 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the Member has caused this Agreement to be executed and delivered as of the date first above written.

Member

ACCELERATED DECOMMISSIONING
PARTNERS LLC,
a Delaware corporation

Name: Scott E. State
Title: CEO

Agreed

Independent Manager

[]

EXHIBIT E
FORM OF PLEDGE AGREEMENT

PLEDGE AGREEMENT
by and between
ACCELERATED DECOMMISSIONING PARTNERS, LLC
and
DUKE ENERGY FLORIDA, LLC
Dated as of [●], 2019

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ANNEX 1

PLEDGED INTERESTS

PLEDGE AGREEMENT

THIS PLEDGE AGREEMENT (this “Pledge Agreement”), dated as of [●], 2019, is made by ACCELERATED DECOMMISSIONING PARTNERS, LLC, a Delaware limited liability company (“Pledgor”), in favor of DUKE ENERGY FLORIDA, LLC, a Florida limited liability company (together with any successor entity having assumed the obligation to complete the decommissioning of CR-3, “Pledgee”). Pledgor and Pledgee are each referred to individually as a “Party,” and collectively as the “Parties.”

RECITALS

WHEREAS, Pledgee owns the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site.

WHEREAS, pursuant to that Crystal River Unit 3 Decommissioning Services Agreement (the “Decommissioning Agreement”), dated as of [●], 2019, as amended from time to time, by and between Pledgee and ADP CR3, LLC, a Delaware limited liability company and a wholly-owned subsidiary of Pledgor (“Contractor”), Contractor has agreed to Decommission the CR-3 Facility and the NRC-Licensed Site.

WHEREAS, pursuant to that Spent Nuclear Fuel Purchase and Sale Agreement (“SNF PSA”), dated as of [●], 2019, as amended from time to time, by and between Pledgee, and ADP SF1, LLC, an Affiliate of Contractor, Pledgee has agreed to sell the Assets (as defined therein) to ADP SF1, LLC.

WHEREAS, pursuant to the Decommissioning Agreement, Contractor has agreed to provide certain performance assurances in connection with Contractor’s obligations to Decommission the CR-3 Facility and the NRC-Licensed Site, including causing Pledgor to pledge the Pledged Interests (as defined below) to Pledgee as collateral for Contractor’s obligations under the Decommissioning Agreement pursuant to this Pledge Agreement.

WHEREAS, it is a condition of Pledgee’s willingness to enter into the Decommissioning Agreement and the SNF PSA and perform its obligations thereunder that Pledgor agree to pledge 100% of its equity interests in Contractor as collateral for its obligations under the Decommissioning Agreement.

WHEREAS, as of the date hereof, Pledgor owns 100% of the equity interests in Contractor.

NOW, THEREFORE, in consideration of the mutual representations, warranties, covenants and agreements hereinafter set forth, and intending to be legally bound hereby, the Parties agree as follows:

ARTICLE 1

DEFINITIONS AND INTERPRETATION

1.1 Definitions. (a) All capitalized terms used herein but not defined herein that are defined in the Uniform Commercial Code shall have the meanings therein stated; and (b) all other capitalized terms used herein that are not defined herein (including in the Recitals) or in the Uniform Commercial Code shall have the meanings given to such terms in the Decommissioning Agreement. The following terms shall have the following meanings under this Pledge Agreement.

“Additional Shares” has the meaning assigned to such term in Section 3.1.1.

“Amended and Restated NDF Agreement” means the Amended and Restated Nuclear Decommissioning Trust Agreement dated May 1, 2008 by and between the Trustee and Company, as amended as of November 13, 2013, January 29, 2014 and December 31, 2015, and following the Closing, as amended by the Fourth Amendment to Amended and Restated NDF Agreement.

“Bankruptcy Event” means, with respect to any Person, that any one or more of the following has occurred:

- (a) that Person has commenced a voluntary case concerning itself under the Bankruptcy Code;
- (b) an involuntary case is commenced against that Person under the Bankruptcy Code and the petition is not controverted within thirty (30) days, or is not dismissed within ninety (90) days after commencement of the case;
- (c) a custodian (as defined in the Bankruptcy Code) is appointed for, or takes charge of, all or any substantial part of the property of that Person;
- (d) that Person commences any other proceedings under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar Law of any jurisdiction whether now or hereafter in effect relating to that Person;
- (e) there is commenced against such Person any proceeding of the type described in clause (d) above and such proceeding is not controverted within thirty (30) days or is not dismissed for a period of ninety (90) days;
- (f) any order of relief or other order is entered approving any case or proceeding of the types described in clauses (b) or (d) above;
- (g) that Person makes a general assignment for the benefit of creditors; or
- (h) that Person admits in writing its general inability to pay its debts when due or shall, by any act consents to, approves or acquiesces in any of the foregoing.

“Collateral” has the meaning assigned to such term in Section 3.1.

“Contractor” has the meaning assigned to such term in the Preamble.

“Closing” means the consummation of the transactions as contemplated by the SNF PSA

“Encumbrance” means any charges, claims, mortgages, pledges, liens, security interests, equitable interests, options, conditional and installment sale agreements, conservation easement, deed restrictions, easement, encroachment, right-of-ways, right of first refusal or encumbrances and charges of any kind.

“Event of Default” means a Contractor Event of Default as defined in the Decommissioning Agreement.

“Governmental Authority” means any federal, state, local provincial, foreign, international or other governmental, regulatory or administrative agency, taxing authority, commission, department, board, or other government subdivision, court or tribunal.

“Material Adverse Effect” means any change, effect, event, circumstance, occurrence, fact, condition or development that, individually or in the aggregate, has a material adverse effect on (a) the business, assets or liabilities (contingent or otherwise) of Pledgor; (b) the ability of Pledgor to perform any of its obligations under this Pledge Agreement or the Amended and Restated LLC Agreement (as defined in the Decommissioning Agreement); or (c) the rights of or benefits available to Pledgee in its capacity as such under this Pledge Agreement.

“Obligations” means all obligations of Contractor with regard to the Decommissioning of CR-3 Facility and the NRC-Licensed Site under the Decommissioning Agreement or any Ancillary Agreement to which Contractor is a party.

“Ownership Interests” has the meaning assigned to such term in Section 3.1.3.

“Party” has the meaning assigned to such term in the Preamble.

“Pledge Agreement” has the meaning assigned to such term in the Preamble.

“Pledged Interests” has the meaning assigned to such term in Section 3.1.1.

“Pledgee” has the meaning assigned to such term in the Preamble.

“Pledgor” has the meaning assigned to such term in the Preamble.

“Proceeds” means “proceeds” as such term is defined in the Uniform Commercial Code, including: (a) any and all proceeds of any insurance, indemnity, warranty or guaranty payable to Pledgor from time to time, and claims for insurance, indemnity, warranty or guaranty effected or held for the benefit of Pledgor, in each case with respect to any of the Collateral; (b) any and all payments (in any form whatsoever) made or due and payable to Pledgor from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Collateral by any Governmental Authority (or any person acting under color of

Governmental Authority); and (c) any and all other amounts from time to time paid or payable under or in connection with any of the Collateral.

“Records” has the meaning assigned to such term in Section 2.1.

“Termination Date” means the date upon which Contractor fully satisfies all of the Obligations and achieves all of the End-State Conditions (as defined in the Decommissioning Agreement).

“Transaction Documents” means the Decommissioning Agreement, the SNF PSA, the Parent Guaranties, the Parent Support Agreements, this Pledge Agreement, and each other Ancillary Agreement as such term is defined in the Decommissioning Agreement.

“Uniform Commercial Code” means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided that, if by reason of any mandatory provisions of law, the perfection, the effect of perfection or non-perfection or priority of the security interests granted to the secured party pursuant to this Pledge Agreement are governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than Delaware, then “Uniform Commercial Code” means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of such perfection, effect of perfection or non-perfection or priority.

1.2 Certain Interpretative Matters. Unless otherwise required by the context in which any term appears:

(a) The singular shall include the plural, the plural shall include the singular, and the masculine shall include the feminine and neuter.

(b) References to “Articles,” “Sections,” “Schedules” or “Exhibits” shall be to articles, sections, schedules or exhibits of or to this Pledge Agreement, and references to “paragraphs” or “clauses” shall be to separate paragraphs or clauses of the section or subsection in which the reference occurs.

(c) The words “herein,” “hereof” and “hereunder” shall refer to this Pledge Agreement as a whole and not to any particular section or subsection, of this Pledge Agreement; and the words “include,” “includes” or “including” shall mean “including, but not limited to” or “including, without limitation.” The word “threatened” refers to threats made in writing.

(d) The term “day” shall mean a calendar day, commencing at 12:01 a.m. Eastern time. The term “week” shall mean any seven consecutive day period, and the term “month” shall mean a calendar month; provided, however, that when a period measured in months commences on a date other than the first day of a month, the period shall run from the date on which it starts to the corresponding date in the next month and, as appropriate, to succeeding months thereafter. Whenever a payment is to be made by a particular date and the date in question falls on a day which is not a Business Day, the payment shall be made on the next succeeding Business Day; provided, however, that all calculations shall be made regardless of whether any given day is a Business Day and whether or not any given period ends on a Business Day.

(e) All references to a particular entity shall include such entity's permitted successors and permitted assigns unless otherwise specifically provided herein.

(f) All references herein to any Law or to any contract or other agreement shall be to such Law, contract or other agreement as amended, supplemented or modified from time to time unless otherwise specifically provided herein.

(g) The titles of the Articles and Sections hereof and Exhibits and Schedules hereto have been inserted as a matter of convenience of reference only, and shall not control or affect the meaning or construction of any of the terms or provisions hereof.

1.2.2 This Pledge Agreement was negotiated and prepared by the Parties with advice of counsel to the extent deemed necessary by each Party; the Parties have agreed to the wording of this Pledge Agreement; and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this Pledge Agreement or any part hereof.

1.2.3 The Annex attached hereto is hereby incorporated in and is intended to be a part of this Pledge Agreement.

ARTICLE 2

REPRESENTATIONS AND WARRANTIES

Pledgor represents and warrants to Pledgee that:

2.1 Chief Place of Business; Chief Executive Office; Records. The chief place of business and chief executive office of Pledgor and the office where Pledgor keeps its books and records concerning the Collateral (hereinafter, collectively called the "Records") is located at the address of Pledgor set forth in Annex 1.

2.2 Ownership of Contractor. Pledgor owns, and will, until the Termination Date, continue to own, 100% of the Pledged Interests.

2.3 Title. No Encumbrance exists or will exist upon the Collateral at any time (and no right or option to acquire all or any part of the Collateral exists in favor of any other Person), except for the Encumbrance created by this Pledge Agreement. The Encumbrance created by this Pledge Agreement in favor of Pledgee has attached and, upon taking the actions contemplated under Sections 5.1.1 and 5.1.2 hereof, will constitute a perfected pledge and security interest in all of the Collateral prior to all other Encumbrances.

2.4 Pledged Interests. The Pledged Interests are, and all other Pledged Interests hereafter acquired or arising will be, duly and validly authorized, issued, outstanding, fully paid and non-assessable. None of such Pledged Interests is or will be subject to any contractual restriction prohibiting the transfer thereof or the granting of any Encumbrance thereon (except for any such restriction contained in the Transaction Documents). The Pledged Interests identified in Annex 1 constitute and, following the issuance of any Additional Shares and the supplementation of Annex 1 to reflect the acquisition by Pledgor thereof, will constitute, 100%

of the issued and outstanding limited liability company interests of Contractor. Annex 1 (as supplemented from time to time) correctly identifies, as of the date hereof and as to all Pledged Interests, the respective type of Pledged Interest, the percentage of the aggregate outstanding interests represented by such Pledged Interest and the number and registered owner of such Pledged Interest. The Pledged Interests are not certificated.

2.5 Limited Liability Company Status; Due Authorization. Pledgor (a) is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, (b) is qualified to do business in, and is in good standing (with respect to jurisdictions that recognize the concept of good standing) as a foreign entity in, each jurisdiction where such qualification is required by applicable Laws, except where the failure so to qualify would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect, (c) has all requisite limited liability company power and authority to own and operate its property and assets, to lease the property it operates as lessee and to carry on the business that it now conducts, and (d) has the limited liability company power and authority, and has taken all limited liability company action necessary, to execute, deliver and perform its obligations under this Pledge Agreement, including to Pledgee hereunder.

2.6 Legality and Enforceability. This Pledge Agreement constitutes the valid and binding obligation of Pledgor, enforceable against it in accordance with its terms, subject to (a) applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights generally from time to time in effect and (b) equitable principles of general applicability.

2.7 No Violation. The execution, delivery and performance by Pledgor of this Pledge Agreement and the other Transaction Documents do not contravene, or constitute a default under, any provision of Law applicable to Pledgor or of its organizational documents, or of any material agreement, judgment, injunction, order, decree or other instrument binding upon Pledgor, except where such contravention or default would not reasonably be expected to result in a Material Adverse Effect.

2.8 Governmental Approvals. Subject to receipt of any Required Regulatory Approvals to be made with, and obtaining any required consents from, certain Governmental Authorities, including the NRC, in order to enforce the rights of Pledgee and assume the Pledged Interests, no filing with, or consent of, any Governmental Authority or in respect of any material contract is required in connection with the execution and delivery by Pledgor of this Pledge Agreement or the transactions contemplated hereby, except for (a) the financing or continuation statements contemplated to be filed pursuant to Section 5.1.2, 5.7.1(b), or 5.8; (b) the perfection of the Encumbrance created hereby; (c) the exercise by Pledgee of its rights and remedies hereunder; (d) any actions, consents, approvals, registrations or filings which would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect, or (e) such as have been made or obtained and are in full force and effect.

2.9 Litigation. There are no actions, suits, investigations or proceedings by or before any Governmental Authority or arbitration pending or, to Pledgor's knowledge, threatened against or affecting the Collateral challenging the validity or propriety of the transactions contemplated hereunder, which, if adversely determined, would not reasonably be expected to,

either individually or in the aggregate, (a) result in a Material Adverse Effect, or (b) materially and adversely affect the validity, perfection and enforceability of the Encumbrance granted to Pledgee under this Pledge Agreement.

2.10 Assignment. Pledgor has not assigned any of its rights in, to or under all or any portion of the Collateral, which assignment is present and continuing. Pledgee may assign its rights hereunder to the Collateral to its designee.

ARTICLE 3

THE PLEDGE

3.1 Pledge; Collateral. As security for the prompt and complete payment and performance when due of all Obligations, Pledgor hereby pledges and grants to Pledgee a continuing Encumbrance on and security interest of first priority in, all of Pledgor's right, title and interest in, to and under the following, in each case, whether now owned or existing or hereafter acquired or arising, and wherever located (all being collectively referred to herein as "Collateral"):

3.1.1 all limited liability company interests issued by Contractor and all other shares, securities, limited liability company interests, or other interests of Pledgor of whatever type, now owned or in the future acquired by Pledgor in Contractor, together with, in each case, any certificates representing the same (such future acquired shares, securities, limited liability company interests or partnership interests, hereinafter, "Additional Shares", and together with the limited liability company interests identified in Annex 1, collectively, the "Pledged Interests");

3.1.2 all shares, securities, membership or partnership interests, limited liability company interests, or other equity interests in respect of any of the Pledged Interests or other Ownership Interests, resulting from a split-up, revision, reclassification or other like change of any of the Pledged Interests or other Ownership Interests or otherwise received in exchange for any of the Pledged Interests or other Ownership Interests and all rights issued to the holders of, or otherwise in respect of, any of the Pledged Interests or other Ownership Interests;

3.1.3 without affecting Pledgor's obligations under any provision prohibiting such action under any Transaction Document, in the event of any consolidation or merger in which Contractor is not the surviving entity, (a) all shares, securities or membership or partnership interests of the successor entity formed by or resulting from that consolidation or merger, and (b) all other consideration (including, without limitation, all personal property, tangible or intangible) received in exchange for such Collateral (the Pledged Interests, together with all other certificates, shares, securities, monies, limited liability company interests, stock or other property as may from time to time be pledged hereunder pursuant to Section 3.1.1 or 3.1.2 above and this Section 3.1.3 and the proceeds of and to any such property and, to the extent related to any such property or such proceeds, all books, correspondence, credit files, records, invoices and other papers, including all tapes, cards, computer runs and other papers and documents in the possession or under the control of Pledgor, being herein collectively called the "Ownership Interests");

(a) all Proceeds of and to any of the property of Pledgor described in the preceding clauses of this Section 3.1 (including, without limitation, all causes of action, claims and warranties now or hereafter held by Pledgor in respect of any of the items listed above); and

(b) all products, rents, revenues, distributions, issues, profits, royalties, income, benefits, accessions, additions, substitutions and replacements of and to any and all of the foregoing.

ARTICLE 4

COVENANTS

In furtherance of the grant of the Encumbrance and security interest pursuant to Article 3, Pledgor hereby agrees with Pledgee as follows:

4.1 Compliance with this Pledge Agreement. Pledgor shall perform and comply in all material respects with all obligations and satisfy all conditions, in each case under the terms of this Pledge Agreement.

4.2 Fiscal Year, Name, Location, EIN, etc. Pledgor shall not change its fiscal year, name, jurisdiction of organization, organization identification number or location of its principal place of business without at least thirty (30) days prior written notice to Pledgee. In the event of such change, Pledgor shall, at its expense, execute and deliver such instruments and documents as may be reasonably required by Pledgee or law to maintain a prior perfected security interest in the Collateral.

4.3 Change in Capital Structure, Dissolution. Pledgor shall not institute, take, cause to be taken, or consent to (a) dissolve, liquidate, retire or redeem any of Contractor's limited liability company interests, securities or the like, (b) any action which results in the issue by Contractor of any additional limited liability company interests or securities or the like, or any right to receive the same, (c) merge or consolidate Contractor with any other Person, or (d) dissolve or terminate Contractor.

4.4 Encumbrances. Pledgor shall not create, incur, assume or suffer to exist any Encumbrance on any of the Collateral other than the Encumbrances granted pursuant to this Pledge Agreement.

4.5 Defense of Collateral. Until the Termination Date, Pledgor shall take commercially reasonable measures to defend its title to the Collateral and the interest of Pledgee in the Collateral pledged hereunder against the claims and demands of all Persons.

4.6 Bankruptcy Proceedings. To the extent the following obligations are not prohibited by applicable Law and so long as any of the Obligations remain outstanding, Pledgor shall not (a) institute, take, cause to be taken, or consent to, any corporate or limited liability company action (whether as shareholder, partner or otherwise) intended to result in the institution against Pledgor or Contractor of any proceedings (whether of a legal or equitable nature or otherwise) which may lead to a Bankruptcy Event of Pledgor or Contractor, (b) consent to the taking by Contractor of any action which could reasonably be expected to result in the

commencement of any Bankruptcy Event with respect to Contractor, or (c) to the extent it is entitled or lawfully able to do so, fail to timely controvert, or to cause Contractor to timely controvert, any Bankruptcy Event with respect to Pledgor or Contractor.

4.7 Transfers. Except pursuant to the exercise by Pledgee of any of its rights hereunder or as otherwise expressly permitted herein or in the other Transaction Documents, Pledgor shall not transfer, sell, assign, exchange or otherwise dispose of all or any part of the Ownership Interests (or any interest therein). Any such transfer, sale, assignment, exchange, or other disposition shall be subject to the Encumbrance(s) granted to Pledgee pursuant to this Pledge Agreement.

4.8 Compliance with Applicable Law. Pledgor shall comply with all applicable Law and from time to time make, obtain, maintain, comply with and renew all applicable filings with, and consents of, all Governmental Authorities as shall now or hereafter be necessary under applicable Law except where such failure would not reasonably be expected to have a Material Adverse Effect.

ARTICLE 5

FURTHER ACTIONS; REMEDIES

In furtherance of the grant of the Encumbrance and security interest pursuant to Article 3, Pledgor hereby agrees with Pledgee as follows:

5.1 Delivery and Other Perfection. Pledgor shall:

5.1.1 if any of the Pledged Interests or other Collateral pledged by Pledgor under Article 3 are received by Pledgor, forthwith: (a) transfer and deliver to Pledgee or its designee such Pledged Interests or other Collateral so received by Pledgor (together with the certificates, if any, for any such Pledged Interests or other Collateral, duly endorsed in blank or accompanied by any instrument or agreement necessary to transfer the Pledged Interests, endorsed in blank), all of which thereafter shall be held by Pledgee, pursuant to the terms of this Pledge Agreement, as part of the Collateral, and/or (b) take such other action as shall be necessary or appropriate to duly perfect or maintain the Encumbrance created hereunder in such Pledged Interests or other Collateral in Article 3;

5.1.2 upon the reasonable request of Pledgee, give, execute, deliver, file, authorize, obtain and/or record any financing statement, continuation statement, notice, instrument, document, agreement, consent or other papers that may be reasonably necessary or desirable (in the judgment of Pledgee): (a) to create, preserve, perfect or validate the pledge and security interest in the Collateral granted pursuant hereto, or (b) to enable Pledgee to exercise and enforce its rights hereunder with respect to such Encumbrance and security interest, including, without limitation, causing any or all of the Collateral to be transferred of record into the name of Pledgee or its nominee (and Pledgee agrees that if any Collateral is transferred into its name or the name of its nominee, Pledgee will thereafter promptly give to Pledgor copies of any notices and communications received by it with respect to the Collateral pledged by Pledgor hereunder); provided that the foregoing shall not require Pledgor to make filings with, or obtain

certain consents of, certain Governmental Authorities, including the NRC, in order for Pledgee to enforce its rights and assume the Pledged Interests; provided, further, that Pledgor shall cause Contractor to make or join, as applicable, such filings for such consents that are required to be made, or are customarily joined, by a similarly situated party, including such filings to be made with the NRC. Without limiting the generality of the foregoing, Pledgor shall, if any Collateral shall be evidenced by a promissory note or other instrument, deliver and pledge to Pledgee such note or instrument duly endorsed or accompanied by duly executed instruments of transfer or assignment, all in such form and substance as will allow Pledgee to realize upon the Collateral pursuant to Section 5.5;

5.1.3 keep full and accurate Records to the extent required in order to perfect the Encumbrance and security interest granted by this Pledge Agreement; and

5.1.4 upon reasonable notice, at any time during Pledgor's normal business hours, but no more than twice in any calendar year, permit representatives of Pledgee to inspect and make abstracts from Pledgor's Records; provided that Pledgee hereby agrees that the information, documents and data taken or derived from Pledgor's Records shall be subject to the terms of the confidentiality provisions of Article 12 of the Decommissioning Agreement.

5.2 Special Provisions Relating to the Collateral.

5.2.1 So long as no Event of Default shall have occurred and be continuing or, if an Event of Default shall have occurred and is continuing, so long as Pledgee has not elected to exercise its rights under Section 5.5.3 or 5.5.6 hereof, Pledgor shall have the right to exercise all voting, consensual and other powers of ownership pertaining to the Ownership Interests for all purposes not inconsistent with the terms of this Pledge Agreement, any other Transaction Document or any other instrument or agreement referred to herein; and Pledgee shall execute and deliver to Pledgor or cause to be executed and delivered to Pledgor all such proxies (if the Ownership Interests shall be registered in the name of Pledgee), powers of attorney, dividend and other orders, and all such instruments, without recourse, as Pledgor may reasonably request for the purpose of enabling Pledgor to exercise the rights and powers that it is entitled to exercise pursuant to Section 5.2.2.

5.2.2 Unless and until an Event of Default has occurred and is continuing, Pledgor shall, subject to the terms of the other Transaction Documents, be entitled to receive and retain any ordinary cash dividends or distributions on the Collateral, and Pledgee agrees that such dividends or distributions will be held by Pledgor free and clear of any Encumbrance created by this Pledge Agreement. If Pledgor shall receive any dividends or distributions made in contravention of the terms of any Transaction Document, Pledgor shall hold such dividend or distribution in trust for Pledgee and promptly pay the same to Pledgee. For the avoidance of doubt, payments made to Pledgor or any of its Affiliates in connection with the performance of the Decommissioning of the CR-3 Facility and the NRC-Licensed Site pursuant to the Decommissioning Agreement shall not constitute a dividend or distribution in contravention of this Pledge Agreement or any other Transaction Document.

5.2.3 Distributions to Pledgee. Upon the occurrence and during the continuance of an Event of Default, all dividends and distributions on, and other payments in respect of, the

Collateral shall be paid directly to Pledgee and retained by it as part of the Collateral, subject to the terms of this Pledge Agreement and the other Transaction Documents. If Pledgee shall reasonably request, Pledgor agrees to execute and deliver to Pledgee appropriate additional orders and documents to that end. After all Events of Default have been cured or waived or otherwise cease to be continuing and the Pledgor has delivered to Pledgee a certificate to that effect, and provided that Pledgee has not exercised its rights hereunder with respect to the Collateral, Pledgee shall repay to Pledgor (without interest) and Pledgor shall be entitled to receive, retain and use all dividends, distributions and other payments that Pledgor would otherwise be permitted to receive, retain and use pursuant to the terms of Section 5.5.

5.3 Custody and Preservation. Pledgee's obligation to use reasonable care in the custody and preservation of Collateral shall be satisfied if it uses the same care as it uses in the custody and preservation of its own property.

5.4 Rights of Pledgee. Pledgee may (but shall not be obligated to) pay or secure payment of any Taxes or other claim that may be secured by or result in an Encumbrance on any Collateral in the event Pledgor fails to timely pay or obtain the release or discharge of the same. Pledgee may (but shall not be obligated to) take or cause to be taken any reasonable action that is necessary to preserve, protect or maintain the Collateral or, after and during the continuance of an Event of Default, to enhance its value. Pledgor shall promptly reimburse Pledgee for any payment or expense (including reasonable attorneys' fees and expenses) that Pledgee may incur pursuant to this Section 5.4.

5.5 Event of Defaults, etc. If any Event of Default shall have occurred and be continuing:

5.5.1 Pledgee shall have the right to exercise any and all rights and remedies with respect to this Pledge Agreement as more particularly provided herein or in the Transaction Documents and all the rights and remedies of a secured party under the Uniform Commercial Code;

5.5.2 Pledgor shall, at the request of Pledgee, assemble Collateral owned by it (and not otherwise in the possession of Pledgee), if any, at such place or places, reasonably convenient to both Pledgee and Pledgor;

5.5.3 Subject to any required filings to be made with, and obtaining any required consents from, certain Governmental Authorities, including the NRC, in order to enforce Pledgee's rights and assume the Pledged Interests, Pledgee may (but shall not be obligated to), without notice to Pledgor (except as specified below in this Section 5.5.3) and at such times as Pledgee in its sole judgment may determine, exercise any or all of Pledgor's rights in, to and under, or in any way connected to the Collateral and Pledgee shall otherwise have and may (but shall not be obligated to) exercise all of the rights, powers, privileges and remedies with respect to the Collateral of a secured party under the Uniform Commercial Code or any other applicable law and such additional rights, powers, privileges and remedies to which a secured party is entitled under the laws in effect in any jurisdiction where any rights, powers, privileges and remedies hereunder may be asserted, including, without limitation, to the maximum extent permitted by applicable Law the right, upon written notice to Pledgor, to

exercise all voting, consensual and other powers of ownership pertaining to the Collateral as if Pledgee were the sole and absolute owner thereof (and Pledgor agrees to take all such action as may be appropriate to give effect to such right);

5.5.4 Pledgee may (but shall not be obligated to) make any reasonable compromise or settlement it deems desirable with respect to any of the Collateral and may (but shall not be obligated to) extend the time of payment, arrange for payment in installments, or otherwise modify the terms, of all or any part of the Collateral;

5.5.5 Pledgee may (but shall not be obligated to), in its name or in the name of Pledgor or otherwise, demand, sue for, collect or receive any money or property at any time payable or receivable on account of or in exchange for any of the Collateral; and

5.5.6 Subject to any required filings to be made with, and obtaining any required consents from, certain Governmental Authorities, including the NRC, in order to enforce Pledgee's rights and assume the Pledged Interests, Pledgee may (but shall not be obligated to), upon ten (10) Business Days' prior written notice to Pledgor of the time and place, with respect to the Collateral or any part thereof which shall then be or shall thereafter come into the possession, custody or control of Pledgee, sell, lease, assign or otherwise dispose of all or any part of such Collateral, at such place or places as Pledgee deems reasonable, and for cash or for credit, at public or private sale, without demand of performance or notice of intention to effect any such disposition or of the time or place thereof (except such notice as is required above or by applicable statute and cannot be waived). Pledgee or anyone else may be the purchaser, lessee, assignee or recipient of any or all of the Collateral so disposed of at any public sale (or, to the maximum extent permitted by applicable Law, at any private sale) and thereafter hold the same absolutely, free from any claim or right of whatsoever kind, including any right or equity of redemption (statutory or otherwise), of Pledgor, any such demand, notice and right or equity being hereby expressly waived and released to the maximum extent permitted by applicable Law. Pledgee may, without notice or publication, adjourn any public or private sale or cause the same to be adjourned from time to time by announcement at the time and place fixed for the sale, and such sale may be made at any time or place to which the sale may be so adjourned.

5.5.7 The proceeds of each collection, sale or other disposition under this Section 5.5 shall be applied in accordance with the Transaction Documents.

5.5.8 Pledgor recognizes that, by reason of certain prohibitions contained in the Securities Act of 1933, as amended, and applicable state securities laws, Pledgee may be compelled, subject to the notice provision as provided in Section 5.5.6, with respect to any sale of all or any part of the Collateral constituting a security (as such term is defined in the Securities Act of 1933, as amended), to limit purchasers to those who will agree, among other things, to acquire the Collateral for their own account, for investment and not with a view to the distribution or resale thereof. Pledgor acknowledges that any such private sale may be at prices and on terms less favorable to Pledgee than those obtainable through a public sale without such restrictions, and, notwithstanding such circumstances, agrees that any such private sale shall be deemed to have been made in a commercially reasonable manner and that Pledgee shall have no obligation to engage in public sales and no obligation to delay the sale of any Collateral for the period of time necessary to permit Pledgor or the issuer thereof to register it for public sale.

5.5.9 Notwithstanding anything in this Section 5.5 to the contrary, in no event shall Pledgee take, directly or indirectly, possession of, or exercise control over, the Pledged Interests or any NRC licensed facility until first having received the prior written approval of the NRC authorizing such possession.

5.6 Limited Recourse. Notwithstanding anything to the contrary contained herein, none of Pledgor, any present or future holder of equity interests in Pledgor or any other Affiliate, or any partners, members, other equity holders, officers, directors, employees, representatives or agents of Pledgor shall have any personal liability hereunder or for the Obligations, and the recourse of Pledgee against Pledgor pursuant to this Pledge Agreement shall be limited solely to the Collateral; provided, however, that nothing in the foregoing shall limit Pledgee's right to enforce the terms of this Pledge Agreement, including seeking an injunction to prevent breaches of this Pledge Agreement and to enforce specifically the performance of Pledgor of its obligations under this Pledge Agreement. This provision shall survive the termination of this Pledge Agreement.

5.7 Attorney-in-Fact.

5.7.1 Pledgor hereby irrevocably constitutes and appoints Pledgee, or any Person, officer or agent whom Pledgee may designate, as Pledgor's true and lawful attorney-in-fact with full irrevocable power and authority in the place and instead of Pledgor and in the name of Pledgor or in its own name, at Pledgor's cost and expense, for the purpose of carrying out the provisions of this Article 5 and taking any action and executing any instruments which Pledgee may deem necessary or desirable to accomplish the purposes hereof, to exercise at any time in Pledgee's discretion all or any of the following powers, in accordance with the terms and conditions of the Transaction Documents, which, being coupled with an interest, shall be irrevocable until the Termination Date:

(a) to receive, take, endorse, sign, assign and deliver, all in Pledgee's or Pledgor's name, any and all checks, notes, drafts, and other documents or instruments relating to the Collateral;

(b) to prepare and file any UCC financing statement against Pledgor as debtor;

(c) to defend any suit, action or proceeding brought against Pledgor with respect to the Collateral;

(d) to settle, compromise or adjust any suit, action or proceeding described in the preceding clause and, in connection therewith, to give such discharges or releases as Pledgee may deem appropriate;

(e) generally, to sell or transfer and make any agreement with respect to or otherwise deal with the Collateral to the extent provided under Section 5.5;

(f) to execute, in connection with any foreclosure, any endorsements, assignments or other instruments of conveyance or transfer with respect to the Collateral (including those described in Section 5.1.1(a) hereof); or

(g) to exercise any and all other rights, remedies, powers and privileges of Pledgor with respect to the Collateral;

provided, however, that Pledgee shall not exercise its powers under clauses (a), (c), (d), (e), (f), or (g), unless an Event of Default has occurred and is continuing and Pledgee has received the prior written approval of the NRC authorizing Pledgee to take possession of, or exercise control over, the Pledged Interests or the CR-3 Facility and the NRC-Licensed Site, as applicable.

5.7.2 Pledgor hereby ratifies all that said attorney shall lawfully do or cause to be done by virtue hereof that is in accordance herewith. Pledgor hereby acknowledges and agrees that in acting pursuant to this power-of-attorney, Pledgee shall be acting in its own interest and Pledgor acknowledges and agrees that Pledgee shall have no fiduciary duties to Pledgor and Pledgor hereby waives any claims to the rights of a beneficiary of a fiduciary relationship hereunder.

5.8 Perfection. Pledgor hereby authorizes Pledgee to, upon the occurrence of the Pledge Collateral Lien Attachment Date, cause the filing of one or more UCC financing or continuation statements, and amendments thereto, describing all or any part of the Collateral as described herein or in any other manner Pledgee determines necessary or desirable to perfect its security interest hereunder without the signature of Pledgor where permitted by applicable Law. Copies of any such statement or amendment thereto shall promptly be delivered to Pledgor.

5.9 Termination. Upon the Termination Date, the security interest created by this Pledge Agreement shall automatically terminate and all rights to the Collateral shall revert to Pledgor, and Pledgee shall (at the written request and sole cost and expense of Pledgor) promptly cause to be transferred and delivered, against receipt but without any recourse, warranty or representation whatsoever, any remaining Collateral and money received in respect thereof, to or on the order of Pledgor and to be released and cancelled all licenses and rights referred to in Section 5.2 hereof, and Pledgor may prepare and file, and at Pledgor's request Pledgee shall execute, any other necessary instruments or terminations to or amendments of financing statements acknowledging the termination of this Pledge Agreement.

5.10 Further Actions. Pledgor will, at its own expense, make, execute, endorse, acknowledge, file and/or deliver to Pledgee from time to time upon request such further documents and instruments, and take such further steps relating to the Collateral and other property or rights covered by the interests hereby granted which are reasonably appropriate or advisable to perfect, preserve or protect Pledgee's security interests in the Collateral.

ARTICLE 6

MISCELLANEOUS

6.1 Pledgee's Right to Perform on Pledgor's Behalf. If Pledgor shall fail to observe or perform any of the terms, conditions, covenants and agreements to be observed or performed by it under this Pledge Agreement, Pledgee may (but shall not be obligated to), to the extent legally practicable, and so long as the rights of Pledgee shall not be adversely affected thereby

(as determined by Pledgee), upon reasonable notice to Pledgor, do the same or cause it to be done or performed or observed at the expense of Pledgor, either in its name or in the name and on behalf of Pledgor, and Pledgor hereby authorizes Pledgee so to do.

6.2 Waiver.

6.2.1 Except as otherwise provided in this Pledge Agreement, PLEDGOR HEREBY WAIVES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, NOTICE OR JUDICIAL HEARING IN CONNECTION WITH PLEDGEE'S TAKING POSSESSION OR PLEDGEE'S DISPOSITION OF ANY OF THE COLLATERAL IN ACCORDANCE WITH THIS PLEDGE AGREEMENT, INCLUDING, WITHOUT LIMITATION, ANY AND ALL PRIOR NOTICE AND HEARING FOR ANY PREJUDGMENT REMEDY OR REMEDIES AND ANY SUCH RIGHT WHICH PLEDGOR WOULD OTHERWISE HAVE UNDER THE CONSTITUTION OR ANY STATUTE OF THE UNITED STATES OR OF ANY STATE, and Pledgor hereby further waives:

(a) all damages occasioned by such taking of possession except any damages which are finally judicially determined to have been the direct result of any Pledgee's willful misconduct or intentional fraud;

(b) all other requirements as to the time, place and terms of sale or other requirements with respect to the enforcement of Pledgee's rights hereunder, except for the requirement that any required Filings being made with and, obtaining any necessary consents from, certain Governmental Authorities, including the NRC, in order to enforce its rights and assume the Pledged Interests;

(c) any claims against Pledgee arising by reason of the fact that the price at which the Collateral may have been sold at such a private sale was less than the price that might have been obtained at a public sale or was less than the aggregate amount of the Obligations, even if Pledgee accepts the first offer received and does not offer the Collateral to more than one offeree;

(d) demand of performance or other demand, notice of intent to demand or accelerate, notice of acceleration, presentment, protest, advertisement or notice of any kind to or upon Pledgor or any other Person; and

(e) all rights of redemption, appraisalment, valuation, stay, extension or moratorium now or hereafter in force under any applicable Law in order to prevent or delay the enforcement of this Pledge Agreement or the absolute sale of the Collateral or any portion thereof, and Pledgor, for itself and all who may claim under it, insofar as it or they may now or hereafter lawfully do so, hereby waives the benefit of such Laws.

6.2.2 Without limiting the generality of the foregoing but subject to any required filings being made with, and obtaining any required consents from, certain Governmental Authorities, including the NRC, in order to enforce Pledgee's rights and assume the Pledged Interests, Pledgor hereby: (a) authorizes Pledgee, in its sole discretion and without notice to or demand upon Pledgor and without otherwise affecting the obligations of Pledgor hereunder from time to time, to take and hold other collateral granted to it by any other Person

(in addition to the Collateral) for payment of any Obligations, or any part thereof, and to exchange, enforce or release such other collateral or any part thereof, and to accept and hold any endorsement or guarantee of payment of the Obligations or any part thereof, and to release or substitute any endorser or guarantor or any other Person granting security for or in any way obligated upon any Obligations, or any part thereof; and (b) waives and releases any and all right to require Pledgee to collect any of the Obligations from any specific item or items of Collateral or from any other party liable as guarantor or in any other manner in respect of any of the Obligations or from any collateral (other than the Collateral) for any of the Obligations.

6.2.3 Any sale of, or the grant of options to purchase, or any other realization upon, any Collateral shall, provided that it is done in accordance with applicable Law and this Pledge Agreement, operate to divest all right, title, interest, claim and demand, either at law or in equity, of Pledgor therein and thereto, and shall be a perpetual bar both at law and in equity against Pledgor and against any and all Persons claiming or attempting to claim the Collateral so sold, optioned or realized upon, or any part thereof, from, through and under Pledgor.

6.3 No Waiver; Remedies Cumulative. No failure or delay on the part of Pledgee in exercising any right, power or privilege hereunder and no course of dealing between Pledgor and Pledgee shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof of the exercise of any other right, power or privilege hereunder. A waiver by Pledgee of any right or remedy hereunder on any one occasion shall not be construed as a bar to any right or remedy which Pledgee would otherwise have on any future occasion. The rights and remedies herein expressly provided are cumulative and may be exercised singly or concurrently and as often and in such order as Pledgee deems expedient and are not exclusive of any rights or remedies which Pledgee would otherwise have whether by agreement or now or hereafter existing under applicable Law. No notice to or demand on Pledgor in any case shall entitle Pledgor to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of Pledgee to any other or future action in any circumstances without notice or demand.

6.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed given if delivered personally or by facsimile transmission, or mailed by overnight courier or registered or certified mail (return receipt requested), postage prepaid, to the recipient Party at its address (or at such other address or facsimile number for a Party as shall be specified by like notice; provided, however, that notices of a change of address shall be effective only upon receipt thereof):

6.4.1 If to Company, to:

Duke Energy Florida, LLC
15760 W. Power Line Street
Crystal River, FL 34428
Attn.: Terry Hobbs, CR-3 Decommissioning Manager
E-mail: terry.hobbs@duke-energy.com

with a copy (which shall not constitute notice) to:

Duke Energy Florida, LLC
550 South Tryon Street, DEC 45A
Charlotte, NC 28202
Attn: Tracey LeRoy, Legal Counsel, Nuclear (Crystal River Unit 3)
Email: tracey.leroy@duke-energy.com

and

Morgan, Lewis & Bockius LLP
300 S. Grand Avenue, 22nd Floor
Los Angeles, CA 90071
Attn: Ingrid A. Myers
E-mail: Ingrid.myers@morganlewis.com

6.4.2 if to Contractor, to:

ADP CR3, LLC
c/o Accelerated Decommissioning Partners, LLC
17101 Preston Road, Suite 115
Dallas, TX 75248
Attn: Scott State, CEO
E-mail: ssate@northstar.com

with a copy (which shall not constitute notice) to:

NorthStar Group Services, Inc.
35 Corporate Drive, Suite 1155
Trumbull, CT 06611
Attn: Gregory G. DiCarlo, Vice President & General Counsel
E-mail: gdicarlo@northstar.com

Orano USA, LLC
1155 F St. NW, Suite 800
Washington, DC 20004
Attn: Michael Woods, General Counsel
E-mail: michael.woods@orano.group

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131
Attn: Stephen B. Amdur, Esq.
Email: stephen.amdur@pillsburylaw.com

6.5 Amendments and Waivers. Neither this Pledge Agreement nor any terms hereof may be amended, supplemented, modified or waived except in writing duly executed by Pledgee and Pledgor.

6.6 Successors and Assigns. This Pledge Agreement shall: (a) remain in full force and effect until the termination hereof pursuant to Section 5.9; and (b) be binding upon and inure to the benefit of the respective successors and permitted assigns of Pledgor and Pledgee; provided, however, that Pledgor shall not assign or transfer its rights or obligations hereunder without the prior consent of Pledgee. Any assignment in contravention of this Section 6.6 shall be null and void and without legal effect on the rights and obligations of the Parties hereunder.

6.7 Survival. All agreements, statements, representations and warranties made by Pledgor herein or in any certificate or other instrument delivered by Pledgor or on its behalf under this Pledge Agreement shall be considered to have been relied upon by Pledgee and shall survive the execution and delivery of this Pledge Agreement and the other Transaction Documents, regardless of any investigation made by Pledgee or on its behalf, until the Termination Date.

6.8 Counterparts. This Pledge Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.9 Agents, etc. Pledgee may employ agents and attorneys-in-fact in connection herewith and shall not be responsible for the negligence or misconduct of any such agents or attorneys-in-fact selected by it in good faith.

6.10 Severability. In case any provision in or obligation under this Pledge Agreement shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

6.11 LIMITATION OF LIABILITY.

6.11.1 NEITHER PARTY SHALL HAVE ANY LIABILITY WITH RESPECT TO, AND EACH OF THE PARTIES HEREBY WAIVES, RELEASES AND AGREES NOT TO SUE FOR:

(a) ANY LOSS OR DAMAGE SUSTAINED BY SUCH PARTY, OR ANY LOSS, DAMAGE, DEPRECIATION OR OTHER DIMINUTION IN THE VALUE OF ANY COLLATERAL, THAT MAY OCCUR AS A RESULT OF, IN CONNECTION WITH, OR THAT IS IN ANY WAY RELATED TO, ANY EXERCISE OF ANY RIGHT OR REMEDY UNDER THIS PLEDGE AGREEMENT EXCEPT FOR ANY SUCH LOSS, DAMAGE, DEPRECIATION OR DIMINUTION TO THE EXTENT THAT THE SAME IS THE RESULT OF ACTS OR OMISSIONS ON THE PART OF THE OTHER PARTY CONSTITUTING GROSS NEGLIGENCE, WILLFUL MISCONDUCT OR INTENTIONAL FRAUD AS DETERMINED IN A FINAL JUDGMENT BY A COURT OF COMPETENT JURISDICTION; OR

(b) ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES SUFFERED BY SUCH PARTY IN CONNECTION WITH ANY CLAIM RELATED TO THIS PLEDGE AGREEMENT.

6.12 Security Interest Absolute. The rights and remedies of Pledgee hereunder, the Encumbrance created hereby, and the obligations of Pledgor under this Pledge Agreement are absolute and unconditional and will remain in full force and effect without regard to, and will not be released, suspended, discharged, terminated or otherwise affected by, any circumstance or occurrence whatsoever (other than upon the termination of this Pledge Agreement pursuant to Section 5.9), including:

6.12.1 any renewal, extension, amendment, waiver or modification of, or addition or supplement to or deletion from, any of the Transaction Documents or any other instrument or agreement referred to therein, or any assignment or transfer of any thereof;

6.12.2 any waiver, consent, extension, indulgence or other action or inaction under or in respect of this Pledge Agreement, any other Transaction Document or any such instrument or agreement or any exercise or non-exercise of any right, remedy, power or privilege under or in respect of this Pledge Agreement, any other Transaction Document or any such instrument or agreement;

6.12.3 any furnishing of any additional security for the Obligations or any part thereof to Pledgee or any other Person or any acceptance thereof by Pledgee or any other Person or any sale, exchange, release, surrender or realization of or upon any such security by Pledgee or any other Person;

6.12.4 any invalidity, irregularity or unenforceability of all or part of the Obligations or any security therefor;

6.12.5 the acceleration of the maturity of any of the Obligations or any other modification of the time of payment thereof; or

6.12.6 any other event or circumstance whatsoever which might otherwise constitute a legal or equitable discharge of a surety or a guarantor (other than payment and performance in full of the Obligations), it being the intent of this Section 6.12 that the obligations of Pledgor hereunder shall be absolute, irrevocable and unconditional until the Termination Date.

6.13 Subrogation. So long as this Pledge Agreement shall be in effect, Pledgor shall not exercise any claim, right or remedy that it may now have or may hereafter acquire against Contractor arising under or in connection with this Pledge Agreement, including, without limitation, any claim, right or remedy of subrogation, contribution, reimbursement, exoneration, indemnification or participation arising under contract, by law or otherwise in any claim, right or remedy of Pledgor against Pledgee or any other Person or any Collateral which Pledgee may now have or may hereafter acquire. If, notwithstanding the preceding sentence, any amount shall be paid to Pledgor on account of such subrogation rights at any time when any of the Obligations shall not have been paid in full, such amount shall be held by Pledgor in trust for Pledgee, segregated from other funds of Pledgor and be turned over to Pledgee in the exact form received by Pledgor (duly endorsed by Pledgor to Pledgee, if required), to be applied against the Obligations, whether matured or unmatured, in accordance with the Transaction Documents.

6.14 Reinstatement. This Pledge Agreement and the Encumbrance created hereunder shall automatically be reinstated if and to the extent that for any reason any payment by or on

behalf of Pledgor in respect of the Obligations is rescinded or must otherwise be restored by any holder of the Obligations, whether as a result of any proceedings in bankruptcy or reorganization or otherwise.

6.15 No Third Party Beneficiaries. The agreements of the Parties hereto are solely for the benefit of Pledgor and Pledgee, and no other Person shall have any rights hereunder.

6.16 Governing Law. This Pledge Agreement shall be governed by and construed in accordance with the laws of the State of Florida, without giving effect to any choice or conflict of law provision or rule (whether of the State of Florida or any other jurisdiction) that could cause the application of the laws of any jurisdiction other than the State of Florida. Each of the Parties irrevocably and unconditionally agrees that any legal action or proceeding with respect to this Pledge Agreement and the rights and obligations arising hereunder, or for recognition and enforcement of any judgment in respect of this Pledge Agreement and the rights and obligations arising hereunder brought by the other Party hereto or its successors or assigns, shall be brought and determined exclusively in the Federal Courts of the United States of America or the Courts of the State of Florida, in each case located in the City of St. Petersburg and County of Pinellas. Each of the Parties hereby irrevocably submits with regard to any such action or proceeding for itself and in respect of its property, generally and unconditionally, to the personal jurisdiction of the aforesaid courts and agrees that it will not bring any action relating to this Pledge Agreement in any court other than the aforesaid courts. Each of the Parties hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Pledge Agreement, (a) any claim that it is not personally subject to the jurisdiction of the above named courts for any reason other than the failure to serve in accordance with this Section 6.16, (b) any claim that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise) and (c) to the fullest extent permitted by the applicable Law, any claim that (i) the suit, action or proceeding in such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper or (iii) this Pledge Agreement, or the subject matter hereof, may not be enforced in or by such courts. EACH OF THE PARTIES HERETO IRREVOCABLY WAIVES ITS RIGHT TO A JURY TRIAL WITH RESPECT TO ANY ACTION OR CLAIM ARISING OUT OF ANY DISPUTE IN CONNECTION WITH THIS PLEDGE AGREEMENT.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the Parties have duly executed this Pledge Agreement as of the day and year first above written.

ACCELERATED DECOMMISSIONING
PARTNERS, LLC

By: _____
Name:
Title:

DUKE ENERGY FLORIDA, LLC

By: _____
Name:
Title:

{Signature Page to Pledge Agreement}

ANNEX 1

PLEDGED INTERESTS

Type of Pledged Interest	Percentage of the Aggregate Outstanding Interests Represented by the Pledged Interests	Registered Owner of Pledged Interests	Issuer
Limited liability company interests	100%	Accelerated Decommissioning Partners, LLC [insert address]	ADP CR3, LLC

EXHIBIT F

**FORM OF FOURTH AMENDMENT TO THE
AMENDED AND RESTATED NUCLEAR
DECOMMISSIONING TRUST AGREEMENT
BETWEEN DUKE ENERGY FLORIDA, LLC AND
THE BANK OF NEW YORK MELLON**

This Fourth Amendment to the Amended and Restated Nuclear Decommissioning Trust Agreement (this "Amendment") is entered into and made effective as of _____, 2020, by and between The Bank of New York Mellon, a New York state chartered bank (the "Trustee"), and Duke Energy Florida, LLC, a limited liability company organized under the laws of the State of Florida (formerly known as Duke Energy Florida, Inc. and Florida Power Corporation d/b/a Progress Energy Florida, Inc., the "Company").

WHEREAS, the Company and State Street Bank and Trust Company entered into the Amended and Restated Nuclear Decommissioning Trust Agreement dated May 1, 2008, as amended November 13, 2013, January 29, 2014 and December 31, 2015 (collectively, the "Original Agreement").

WHEREAS, pursuant to Section 3.08 of the Original Agreement and the amendment dated December 31, 2015, the Company removed State Street Bank and Trust Company and appointed the Trustee as successor Trustee.

WHEREAS, capitalized terms used herein and not otherwise defined have the meanings given to such terms in the Original Agreement.

WHEREAS, the Company owns and is legally responsible for decommissioning the Crystal River Unit 3 Nuclear Generating Plant (the "Unit") and has entered into the Original Agreement to set aside funds for such purpose.

WHEREAS, to provide for decommissioning of the Unit, the Company has entered into a Decommissioning Services Agreement, dated May __, 2019, to engage a contractor to perform activities necessary to decommission the Unit.

WHEREAS, the Company wishes to amend the Original Agreement pursuant to Section 4.02 to establish two subaccounts within the Qualified Trust Fund a decommissioning subaccount for the activities to be performed by the contractor pursuant to the Decommissioning Services Agreement and a reserve subaccount.

NOW THEREFORE, the Trustee and the Company hereby amend the Original Agreement as follows:

1. Section 1.01 is hereby amended to include the following at the end of Section 1.01:

“(a) There is established within the Qualified Trust Fund a subaccount to be known as the “IOI Decommissioning Subaccount.” From the existing Qualified Trust Fund, the amount of Five Hundred Forty Million Dollars (\$540,000,000) shall be segregated into the IOI Decommissioning

Subaccount. In addition to the other limitations and purposes set forth in this Agreement, the funds in the IOI Decommissioning Subaccount shall be used exclusively to fund the performance of Contractor's obligations under the Decommissioning Services Agreement dated May __, 2019 with respect to Decommissioning the Unit and achieving the ISFSI-Only Interim End-State Conditions set forth in the Decommissioning Services Agreement dated May __, 2019.

b) There is established within the Qualified Trust Fund a subaccount to be known as the "Crystal River Reserve Decommissioning Subaccount." From the existing Qualified Trust Fund, any amounts not segregated into the IOI Decommissioning Subaccount shall be segregated in the Crystal River Reserve Decommissioning Subaccount to be used for the purposes set forth in this Agreement."

2. Except as expressly amended by this Amendment, all provisions, terms and conditions contained in the Original Agreement shall remain in full force and effect.
3. This Amendment shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania.
4. This Amendment and the Original Agreement constitute the entire agreement between the parties relating to the subject matter hereof. Any other prior agreements or negotiations between the parties with respect to the subject hereof are superseded.
5. This Amendment may be executed in several counterparts, and all such counterparts executed and delivered, each an original, shall constitute but one and the same instrument.
6. Each party represents and warrants to the other that it has full authority to enter into this Amendment upon the terms and conditions hereof and that the individual executing this Amendment on its behalf has the requisite authority to bind such party to this Amendment, and that the Amendment constitutes a binding obligation of such party enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium, and other similar laws affecting creditors' rights generally and by general principles of equity.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties hereto, each intending to be legally bound hereby, have hereunto set their hand and seals as of the day and year first above written.

DUKE ENERGY FLORIDA, LLC
(f/k/a Duke Energy Florida, Inc. and Florida
Power Corporation d/b/a Progress Energy
Florida, Inc.)

By: _____

Name: _____

Title: _____

THE BANK OF NEW YORK MELLON

By: _____

Name: _____

Title: _____

EXHIBIT G

FORM OF CONTRACTOR'S PROVISIONAL TRUST AGREEMENT

ADP CR3, LLC

CR-3 PROVISIONAL TRUST AGREEMENT

FOR

CRYSTAL RIVER 3 NUCLEAR POWER STATION

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CR-3 PROVISIONAL TRUST AGREEMENT

CR-3 PROVISIONAL TRUST AGREEMENT made as of this ___ day of _____, 20 __, by and between ADP CR3, LLC, a Delaware limited liability company (“*ADP CR3*”) and [_____] (the “*Trustee*”).

RECITALS

WHEREAS, Duke Energy Florida, LLC, a Florida limited liability company (“*DEF*”) owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida on the Crystal River Energy Complex site;

WHEREAS, the Crystal River 3 nuclear power station has been permanently shut down and is currently in SAFSTOR;

WHEREAS, pursuant to that certain Decommissioning Services Agreement dated as of the ___ day of _____, 2019, as amended from time to time (the “*Decommissioning Agreement*”), by and among DEF as Company, ADP CR3 as Contractor, and ADP SF1, LLC, a Delaware limited liability company and an affiliate of Contractor as Buyer, DEF has engaged ADP CR3 to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described therein, in exchange for [REDACTED] for these services;

WHEREAS, ADP CR3 is licensed to possess, use, maintain and decommission the CR-3 Facility;

WHEREAS, ADP SF1, LLC is the owner of the independent spent fuel storage installation (the “ISFSI”) at the CR-3 Facility and the spent nuclear fuel and waste stored or to be stored at the ISFSI;

WHEREAS, ADP CR3, pursuant to the Decommissioning Agreement, wishes to establish the Provisional Trust to receive funds in connection with the Decommissioning Agreement;

WHEREAS, [_____] is willing to serve as Trustee of the Provisional Trust on the terms and conditions herein set forth.

NOW, THEREFORE, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Trustee hereby agrees to accept Trust Contributions to the Provisional Trust delivered to it from time to time by or on behalf of ADP CR3:

TO HAVE AND TO HOLD such Trust Contributions;

TO INVEST AND REINVEST the same as provided herein;

IN TRUST NEVERTHELESS, for the uses and purposes and upon the terms and conditions, as hereinafter set forth; and

TO PAY OR DISTRIBUTE from the Provisional Trust as provided herein.

ARTICLE 1

DEFINITIONS

1.01 Definitions. As used in this Agreement, the following terms shall have the following meanings:

- (a) “**ADP CR3**” has the meaning given in the Preamble of this Agreement.
- (b) “**Agreement**” means this Provisional Trust Agreement as the same may be amended, modified, or supplemented from time to time.
- (c) “**Amended and Restated NDF Agreement**” means the Amended and Restated Nuclear Decommissioning Trust Agreement dated May 1, 2008 by and between DEF and DEF’s trustee, as amended as of November 13, 2013, January 29, 2014 and December 31, 2015, and following the Closing, as amended by the Fourth Amendment to Amended and Restated NDF Agreement.
- (d) “**Applicable Law**” means all applicable laws, statutes, treaties, rules, codes, ordinances, Regulations, certificates, orders, interpretations, licenses and permits of any Governmental Authority and judgments, decrees, injunctions, writs, orders or like action of any court, arbitrator or other judicial or quasi-judicial tribunal of competent jurisdiction (including Environmental Laws, Health and Safety Laws and Nuclear Laws, and common law).
- (e) “**Authorized Instructions**” has the meaning given in Section 6.03. For the avoidance of doubt, the parties acknowledge and agree that distribution instructions based on the form of certificate attached hereto as Exhibit A, that are executed and delivered by an Authorized Representative are Authorized Instructions.
- (f) “**Authorized Representatives**” means the persons designated as such pursuant to Section 6.02.
- (g) “[_____] **Affiliate**” has the meaning given in Section 6.02.
- (h) “[_____] **Group**” has the meaning given in Section 6.15.
- (i) “**Book-Entry System**” has the meaning given in Section 6.10.
- (j) “**Business Day**” means a day other than Saturday or Sunday or any day which is a legal holiday or a day on which banking institutions in the Commonwealth of Pennsylvania are authorized or required by Applicable Law or other action of a Governmental Authority to close.

(k) “**Byproduct Material**” means any radioactive material (except Special Nuclear Material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing Special Nuclear Material.

(l) “**Centralized Functions**” has the meaning given in Section 6.15.

(m) “**Closing**” means the consummation of the transactions as contemplated by the SNF PSA which shall be held within ten (10) Business Days after the date on which the last of the conditions precedent to Closing set forth in Sections 6.1 and 6.2 of the SNF PSA have been either satisfied or waived by the respective party for whose benefit such conditions precedent exist (except with respect to those conditions which by their terms are to be satisfied at Closing).

(n) “**Closing Date**” means the date on which the Closing occurs under the SNF PSA.

(o) “**Contractor**” for the purposes of this Agreement, means ADP CR3.

(p) “**CR-3 Facility**” means the pressurized reactor power plant and all of the ancillary facilities, equipment, supplies, structures and buildings, including the ISFSI and underground structures, that form the Crystal River nuclear power plant, commonly known as Crystal River Unit 3, located on the Gulf of Mexico in Citrus County, Florida, but in any event not including the Excluded Facilities.

(q) “**Crystal River Site**” means the area commonly known as the “Crystal River Energy Complex” that contains the CR-3 Facility, the NRC-Licensed Site, the ISFSI, and the Excluded Facilities, as further described and occupying the area as depicted in Attachment 1 of the Decommissioning Agreement.

(r) “**Decommission**” and “**Decommissioning**” means (a) the dismantlement and removal of the structures, and any reduction or removal of radioactivity, at the CR-3 Facility and the NRC-Licensed Site to a level that permits the release of all or any specified portion of the NRC-Licensed Site consistent with the radiological criteria for license termination specified by the NRC in 10 C.F.R. § 20.1402 for unrestricted use; (b) all other activities necessary for the retirement, dismantlement, decontamination or storage of the CR-3 Facility and NRC-Licensed Site in compliance with all applicable Nuclear Laws and Environmental Laws, including the applicable requirements of the Atomic Energy Act and the NRC’s rules, regulations, orders and pronouncements thereunder; (c) operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, the packaging of the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site; (d) restoration of the NRC-Licensed Site in accordance with Applicable Laws; and (e) any planning and administration activities incidental thereto.

(s) “**Greater Than Class C Waste**” means radioactive waste that contains radionuclide concentrations exceeding the values in Table 1 or Table 2 of 10 C.F.R. § 61.55, and therefore is currently not generally acceptable for disposal at existing (near surface) low level radioactive waste disposal facilities.

(t) “**Contribution**” means any contribution, cash or otherwise, made to the Trustee for deposit in the Provisional Trust as provided in this Agreement.

(u) “**Country Risk Events**” has the meaning given in Section 6.07.

(v) “**Customer-Related Data**” has the meaning given in Section 6.15.

(w) “**Data Providers**” has the meaning given in Section 6.13.

(x) “**Data Terms Website**” has the meaning given in Section 6.13.

(y) “**Decommissioning Agreement**” has the meaning given in the Recitals of this Agreement.

(z) “**Decommissioning Certificate**” means a document properly completed and executed by an Authorized Representative of ADP CR3 and substantially in the form of Exhibit A, as it may from time to time be amended.

(aa) “**Depository**” has the meaning given in Section 6.10.

(bb)



(cc) “**Decommissioning Costs**” means the costs and expenditures incurred for goods and services (including any planning and administrative activities incidental thereto) provided in connection with the Decommissioning of the CR-3 Facility and the NRC-Licensed Site, but excluding costs incurred for the operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site, and Decommissioning of the ISFSI.

(dd) “**DEF**” has the meaning given in the Recitals of this Agreement.

(ee) “**Effective Date**” means the date of this Agreement as shown on the first page hereof.

(ff) “**Environment**” means all soil, real property, air, water (including surface waters, streams, ponds, drainage basins and wetlands), groundwater, water body sediments, drinking water supply, stream sediments or land, including land surface or subsurface strata, including all fish, plant, wildlife, and other biota and any other environmental medium or natural resource.

(gg) “**Environmental Laws**” means all Applicable Laws, other than Nuclear Laws, relating to pollution, the protection, restoration or remediation of or prevention of harm to the Environment or natural resources, or the protection of human health and safety from the

presence of Hazardous Substances, including Laws relating to Releases of any Hazardous Substances (including Releases to the Environment) or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, Release, transport, disposal or handling of Hazardous Substances, and Laws regarding the treatment, storage, handling, transportation, and disposal of solid waste. “Environmental Laws” include the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.), the Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), the Oil Pollution Act (33 U.S.C. §§ 2701 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. §§ 11001 et seq.), the Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.) only as it relates to Hazardous Substances, and the Florida Laws governing hazardous materials and solid waste.

(hh) “**Environmental Permit**” means any federal, state or local permits, licenses, approvals, consents, registrations or authorizations required by any Governmental Authority with respect to the CR-3 Facility or the NRC-Licensed Site under or in connection with any Environmental Law, including any and all orders, consent orders or binding agreements issued or entered into by a Governmental Authority under any applicable Environmental Law, but excluding the NRC License.

(ii) “**Exchange Act**” has the meaning given in Section 6.21.

(jj) “**Excluded Facilities**” means the facilities on the Crystal River Site (and the real property upon which the same are located) that are not related to the CR-3 Facility, including the switchyard, operating and non-operating fossil fuel-fired (coal, natural gas) power generation facilities cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling docks, railroad, and the other buildings or facilities that are not to be Decommissioned hereunder as identified in Attachment 1 of the Decommissioning Agreement.

(kk) “**Governmental Authority**” means any federal, state, local provincial, foreign, international or other governmental, regulatory or administrative agency, taxing authority, commission, department, board, or other government subdivision, court or tribunal.

(ll) “**Hazardous Substances**” means: (a) any petroleum (or any fraction thereof), asbestos, asbestos-containing material, and urea formaldehyde foam insulation and transformers or other equipment that contains polychlorinated biphenyl; (b) any chemicals, materials or substances defined as or included in the definition of “hazardous substances”, “hazardous wastes”, “hazardous materials”, “hazardous constituents”, “restricted hazardous materials”, “extremely hazardous substances”, “toxic substances”, “contaminants”, “pollutants”, “toxic pollutants”, “hazardous air pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law; and (c) any other chemical, material, waste or substance that can form the basis of any Liability under any applicable Environmental Law; except that, in each case and notwithstanding any other provision of this Agreement, Hazardous Substances shall not include Nuclear Material.

(mm) “**Health and Safety Laws**” means any Applicable Laws pertaining to safety and health in the workplace, including the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., and the Toxic Substances Control Act, 15 U.S.C. 2601, et seq.

(nn) “**High Level Waste**” or “**HLW**” means: (a) the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and (b) other highly radioactive material that the NRC, consistent with existing Applicable Law, determines by rule requires permanent isolation, including Greater Than Class C Waste.

(oo) “**High Level Waste Repository**” means a facility which is designed, constructed and operated by or on behalf of the Department of Energy for the storage and disposal of Spent Nuclear Fuel in accordance with the requirements set forth in the Nuclear Waste Policy Act of 1982, as amended.

(pp) “**Investment Account**” has the meaning given in Section 8.01(b).

(qq) “**Investment Manager**” has the meaning given in Section 8.01(a).

(rr) “**IOI Decommissioning Subaccount**” means a formally separate and segregated custodial subaccount within the NDF, the assets of which are not commingled with any of the other assets of the NDF, which is created and maintained solely for the purpose of funding the compensation to be paid to Contractor for Decommissioning the CR-3 Facility (not including costs for operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site) and achieving the ISFSI-Only Interim End-State Conditions.

(ss) “**IOI Disbursement**” means a withdrawal from the IOI Decommissioning Subaccount used to compensate Contractor for Decommissioning the CR-3 Facility (not including costs for operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site), including achieving the ISFSI-Only Interim End-State Conditions, in accordance with this Agreement.

(tt) “**IOI Disbursement Certificate**” means a request submitted by Contractor for DEF to instruct the Trustee to make a disbursement from the IOI Decommissioning Subaccount to Contractor once each month for [REDACTED] or portions thereof completed in the prior month.

(uu) “**ISFSI**” means the existing dry spent fuel storage installation on the Crystal River Site where the Spent Nuclear Fuel and HLW from the CR-3 Facility is located and stored, and the ancillary facilities related thereto, but excluding the Spent Nuclear Fuel and High Level Waste stored thereon, and excluding the storage canisters that will be shipped together with the Spent Nuclear Fuel and the HLW when it is removed from the ISFSI and the NRC-Licensed Site.

(vv) “**ISFSI-Only Interim End-State Conditions**” means all of the following conditions, collectively, and “achieving” or “satisfying” the ISFSI-Only Interim End-State Conditions, or terms of similar import, means the satisfaction of all of the following conditions:

(a) without limiting Contractor’s obligation to satisfy the criteria to complete the Decommissioning of the CR-3 Facility, all buildings and structures constituting the CR-3 Facility, other than the ISFSI, have been removed to a minimum of three feet (3’) below grade and backfilled, graded and seeded to prevent erosion;

(b) underground storage tanks and large diameter pipes that are part of the CR-3 Facility, other than the ISFSI, and not otherwise required by Applicable Law or the Decommissioning Agreement to be removed have been filled in compliance with all applicable Permits;

(c) Contractor has otherwise completed the Decommissioning of the CR-3 Facility and fully performed all of its obligations under the PLTA, with the exception of removal of Spent Nuclear Fuel and HLW from the NRC-Licensed Site and the Decommissioning of the ISFSI;

(d) Contractor has completed the Remediation of Hazardous Substances present in, on or under the NRC-Licensed Site other than with respect to the ISFSI Site, sufficient to comply with Environmental Laws and all applicable Permits; and

(e) the NRC has approved an amendment to the NRC License to release the NRC-Licensed Site from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402, except for the ISFSI Site.

(ww) “**ISFSI Site**” means the portion of the Crystal River Site where the ISFSI is located, as further described and occupying the area as depicted in Attachment 1 of the Decommissioning Agreement, and including the area that lies within the Exclusion Area Boundary, as that area may be modified from time to time under the NRC License.

(xx) “**Losses**” has the meaning given in Section 6.07.

(yy) “**Low Level Waste**” means radioactive material that (a) is neither Spent Nuclear Fuel nor HLW; and (b) any other substance that the NRC, consistent with existing Applicable Law and in accordance with clause (a), classifies as low-level radioactive waste.

(zz) “**Market Data**” has the meaning given in Section 6.13.

(aaa) “**Milestone One**” means that (a) Contractor has submitted the PLTA to the NRC; and (b) the ISFSI-Only Interim End-State Conditions as stated in subparagraphs (a) through and including (d) of the definition of ISFSI-Only Interim End-State Conditions have been satisfied.

(bbb) “**NDF**” means the qualified trust fund meeting the requirements of Code Section 468A and Treas. Reg. § 1.468A-5 that is maintained by DEF pursuant to and in

accordance with the Amended and Restated NDF Agreement for purposes of Decommissioning the CR-3 Facility and the NRC-Licensed Site.

(ccc) “**NMSS Director**” means the Director of the NRC’s Office of Material Safety and Safeguards.

(ddd) “**NRC**” means the United States Nuclear Regulatory Commission and any successor agency thereto.

(eee) “**NRC License**” means the NRC Operating License No DPR–72, Docket No. 50–302 for the CR-3 Facility and the NRC-Licensed Site, and all amendments thereto.

(fff) “**NRC-Licensed Site**” means all of the real property subject to the NRC License, as more particularly described in Attachment 1 to the Decommissioning Agreement. Any reference to the NRC-Licensed Site shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at the NRC-Licensed Site and any references to items “at the NRC-Licensed Site” shall include all items “at, in, on, upon, over, across, under, and within” the NRC-Licensed Site.

(ggg) “**Nuclear Laws**” means all Applicable Laws, other than Environmental Laws, relating to the regulation of nuclear power plants, Source Material, Byproduct Material and Special Nuclear Material; the regulation of Low Level Waste, HLW and Spent Nuclear Fuel; the transportation and storage of Nuclear Material; the regulation of Safeguards Information (as defined in 10 C.F.R. 2.4); the enrichment of uranium; the disposal and storage of Spent Nuclear Fuel; contracts for and payments into the Nuclear Waste Fund; and the antitrust laws and the Federal Trade Commission Act, as applicable to specified activities or proposed activities of certain licensees of commercial nuclear reactors. Nuclear Laws include the Atomic Energy Act; the Price-Anderson Act; the Energy Reorganization Act of 1974 (42 U.S.C. Section 5801 et seq.); Convention on the Physical Protection of Nuclear Material Implementation Act of 1982 (Public Law 97 -351; 96 Stat. 1663); the Foreign Assistance Act of 1961 (22 U.S.C. Section 2429 et seq.); the Nuclear Non-Proliferation Act of 1978 (22 U.S.C. Section 3201); the Low-Level Radioactive Waste Policy Act (42 U.S.C. Section 2021b et seq.); the Nuclear Waste Policy Act (42 U.S.C. Section 10101 et seq. as amended); the Low-Level Radioactive Waste Policy Amendments Act of 1985 (42 U.S.C. Section 2021d, 471); the Energy Policy Act of 1992 (4 U.S.C. Section 13201 et seq.); the provisions of 10 C.F.R. Section 73.21, and any state or local Applicable Laws, other than Environmental Laws, analogous to the foregoing.

(hhh) “**Nuclear Material**” means Source Material, Byproduct Material, Low Level Waste, HLW, and Special Nuclear Material, including Spent Nuclear Fuel.

(iii) “**Nuclear Waste Fund**” means the fund established by Section 302(c) of the Nuclear Waste Policy Act in which the Spent Nuclear Fuel fees to be used for the design, construction and operation of a High Level Waste Repository and other activities related to the storage and disposal of Spent Nuclear Fuel is deposited.

(jjj) “**Operational Losses**” has the meaning given in Section 6.08.

(kkk) “**Oral Instructions**” has the meaning given in Section 6.02.

(lll) “**Order**” means any order relating to Decommissioning issued by a Governmental Authority and applicable to the CR-3 Facility.

(mmm) [REDACTED]

(nnn) [REDACTED]

(ooo) “**Permits**” means any federal, state or local permits, licenses, approvals, consents, registrations or authorizations required by any Governmental Authority in connection with the Decommissioning, but not including the NRC License or any Environmental Permits.

(ppp) “**PLTA**” means the partial License Termination application to be submitted to the NRC in order to obtain the release of the NRC-Licensed Site, other than the ISFSI Site, from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402, and achieve the ISFSI-Only Interim End-State Conditions.

(qqq) “**Pre-Closing Decommissioning Services Contract**” means one or more services agreements between Contractor and DEF for Contractor’s performance of Decommissioning planning activities and such other activities as stated therein, prior to the Closing Date.

(rrr) “**Regulation**” means any requirement having the force of law which is binding on ADP CR3.

(sss) “**Release**” means any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a Hazardous Substance or Nuclear Material into the Environment or within any building, structure, facility or fixture; provided, however, that Release shall not include any release that is permissible under applicable Environmental Laws or any Permit.

(ttt) “**Remediation**” means action of any kind required by any Applicable Law or order of a Governmental Authority to address a Release, the threat of a Release or the presence of Hazardous Substances, including any or all of the following activities:

- (a) monitoring, investigation, assessment, treatment, cleanup, containment, removal, mitigation, response or restoration work;
- (b) obtaining any permits, consents, approvals or authorizations of any Governmental Authority necessary to conduct any such activity;
- (c) preparing and implementing any plans or studies for any such activity;
- (d) obtaining a written notice from a Governmental Authority with jurisdiction under Environmental Laws that no material additional work is required by such Governmental Authority;
- (e) the use, implementation, application, installation, operation or maintenance of remedial action, remedial technologies applied to the surface or subsurface soils, excavation and treatment or disposal of soils, systems for long term treatment of surface water or ground water, engineering controls or institutional controls; and

(f) any other activities required under Environmental Laws to address the presence or Release of Hazardous Substances.

(uuu) “**Required Care**” has the meaning given in Section 6.08.

(vvv) “**Sanctions**” means all economic sanctions laws, rules, regulations, executive orders and requirements administered by any governmental authority of the United States (including the United States Office of Foreign Assets Control) or any other applicable domestic or foreign authority with jurisdiction over ADP CR3.

(www) “**Securities**” has the meaning given in Section 6.07.

(xxx) “**SNF PSA**” means the Spent Nuclear Fuel Purchase and Sale Agreement attached to the Decommissioning Agreement as Exhibit A.

(yyy) “**Source Material**” means: (a) uranium or thorium or any combination thereof, in any physical or chemical form, or (b) ores which contain by weight one-twentieth of one percent (0.05%) or more of (i) uranium, (ii) thorium, or (iii) any combination thereof. Source Material does not include Special Nuclear Material.

(zzz) “**Special Nuclear Material**” means (a) plutonium, uranium-233, uranium enriched in the isotope-233 or in the isotope-235, and any other material that the NRC determines to be “Special Nuclear Material;” and (b) any material artificially enriched by any of the materials or isotopes described in clause (a). Special Nuclear Material includes the Spent Nuclear Fuel; provided, however, that Special Nuclear Material does not include Source Material.

(aaaa) “**Spent Nuclear Fuel**” means all nuclear fuel located at the ISFSI that has been permanently withdrawn from the nuclear reactor in the CR-3 Facility following irradiation, and has not been chemically separated into its constituent elements by reprocessing.

(bbbb) “**Subaccount(s)**” means the Provisional IOI Subaccount or the Provisional Milestone Subaccount.

(cccc) “**Subcustodian**” has the meaning given in Section 6.08.

(dddd) “**Third Party Service Providers**” has the meaning given in Section 6.13.

(eeee) “**Trust Contributions**” has the meaning given in Section 3.01.

(ffff) “**Trustee**” has the meaning given in the Preamble of this Agreement, or any successor appointed pursuant to Section 6.01.

(gggg) “**Provisional Trust**” has the meaning given in Section 2.04.

(hhhh) “**Written Instructions**” has the meaning given in Section 6.02.

ARTICLE 2

PROVISIONAL TRUST PURPOSE AND NAME

2.01 Provisional Trust Purpose. Subject only to the provisions of Article 4, the exclusive purpose of this Provisional Trust is to receive payment of funds in connection with the Decommissioning Agreement and to hold, administer, invest and re-invest and pay over the same for the benefit of ADP CR3 in accordance with the provisions hereof.

2.02 Establishment of Provisional Trust. By execution of this Agreement, ADP CR3:

(a) establishes the Provisional Trust, which shall be effective on the Effective Date and which shall consist of Trust Contributions delivered to the Trustee by or at the direction of ADP CR3 in accordance with Article 3, as well as investments, reinvestments and earnings on such Trust Contributions; and

(b) appoints [_____] as Trustee of the Provisional Trust.

2.03 Acceptance of Appointment. Upon the terms and conditions set forth in this Agreement, [_____] accepts appointment as Trustee of this Provisional Trust. The Trustee declares that it will hold all estate, right, title and interest it may acquire hereunder exclusively for the purposes set forth in this Article 2, subject only to the provisions of Article 4. The Trustee shall receive the Trust Contributions deposited with it by ADP CR3 or on behalf of ADP CR3 and shall deposit the Trust Contributions in the Provisional Trust. The Trustee shall hold, manage, invest and administer the assets of such Trust Contributions, together with earnings and appreciation thereon, in accordance with and subject to the terms of this Agreement. In performing its duties under this Agreement, the Trustee shall exercise reasonable care, skill and caution under the circumstances then prevailing that a prudent professional trustee acting in like capacity and familiar with such matters would use in carrying out the provisions of this Agreement. In addition, an Investment Manager, or anyone else directing investments made in the trust, shall adhere to a "prudent investor" standard, as specified in 18 C.F.R. § 35.32(a)(3).

2.04 Name of Provisional Trust. The Trust Contributions received by the Trustee, together with the proceeds, reinvestments and appreciation thereof shall constitute the "CR-3 PROVISIONAL TRUST" (herein, "**Provisional Trust**"). The funds within the Provisional Trust shall be held in the Subaccounts named herein.

2.05 No Authority to Conduct Business. Subject to Article 4, the purpose of the Provisional Trust is limited specifically to the matters set forth in Section 2.01, and there is no objective to carry on any business unrelated to the Provisional Trust purpose set forth in Section 2.01, or to divide the gains therefrom.

ARTICLE 3

CONTRIBUTIONS

3.01 Trust Contributions. Pursuant to the terms of the Decommissioning Agreement, certain funds and [REDACTED] will be contributed by or on behalf of ADP CR3 to the Provisional Trust (“*Trust Contributions*”).

(a) Trust Contributions attributable to an IOI Disbursement Certificate shall be maintained in a segregated subaccount (“*Provisional Milestone Subaccount*”) and shall not be commingled with other amounts pending disbursement pursuant to Section 4.01.

(b) Trust Contributions attributable to a deposit of Twenty Million Dollars (\$20,000,000) by ADP CR3 shall be maintained in a segregated subaccount (“*Provisional IOI Subaccount*”) and shall not be commingled with other amounts pending disbursement pursuant to Section 4.01.

(c) Any earnings generated from the Provisional IOI Subaccount shall be transferred to and maintained in the Provisional Milestone Subaccount.

(d) [REDACTED]

3.02 Pooling and Allocation of Net Income. The Trustee may pool the assets of the Provisional Trust for investment purposes in accordance with the Written Instructions of ADP CR3, subject to the limitations on investments contained in Article 8. Net income shall be allocated on a *pro rata* basis, based upon the relative proportion of assets pooled. The Trustee shall be entitled to presume, and not be responsible for determining, that any Written Instructions from ADP CR3 comply with the limitations on investments contained in Article 8. The Trustee may also rely upon the written opinion of legal counsel of ADP CR3, who may be an employee of ADP CR3, with respect to any question arising under this Section 3.02.

3.03 Investment Restriction. Except for investments tied to market indexes or other non-nuclear sector collective, commingled or mutual funds, the assets of the Provisional Trust shall not be invested in: (1) the securities or other obligations of ADP CR3, or any affiliates thereof, or their successors or assigns; and (2) the securities or other obligations of any entity owning or operating one or more nuclear power plants. A non-nuclear sector collective, commingled or mutual fund is one in which less than 50 percent of the fund is invested in the securities of entities that own or operate a nuclear power plant or that are parent companies of subsidiaries that own or operate a nuclear power plant.

ARTICLE 4

DISBURSEMENTS

4.01 Disbursement. The Trustee shall make payments out of assets of the Provisional Milestone Subaccount or the Provisional IOI Subaccount, as applicable, upon presentation to the Trustee of a Decommissioning Certificate by ADP CR3 instructing the Trustee to disburse amounts in the Provisional Trust in a manner designated in such Decommissioning Certificate.

(a) Once the aggregate amount of funds ([REDACTED]) held in the Provisional Trust exceeds Fifty Million Dollars (\$50,000,000), ADP CR3 shall have the right to receive disbursements from the Provisional Milestone Subaccount; provided, that the aggregate of the amounts held in the Provisional Trust following any such disbursement in accordance with this Section 4.01 shall be no less than Fifty Million Dollars (\$50,000,000); provided, further, that the Provisional Milestone Subaccount shall be terminated and all of the funds therein shall be disbursed to ADP CR3 (or as ADP CR3 directs) following ADP CR3's completion of Milestone One (as evidenced by written notification of that fact to the Trustee by an Authorized Representative of ADP CR3).

(b) Following the completion of Milestone One and the closing of the Provisional Milestone Subaccount, ADP CR3 shall have the right to receive disbursements from the Provisional IOI Subaccount; provided, that the amount held in the Provisional IOI Subaccount following any such disbursement in accordance with this Section 4.01 shall be no less than Twenty Million Dollars (\$20,000,000); provided, further, that the Provisional IOI Subaccount shall be terminated and all of the funds therein shall be disbursed to ADP CR3 (or as ADP CR3 directs) once all of the ISFSI-Only Interim End-State Conditions are achieved (as evidenced by written notification of that fact to the Trustee by an Authorized Representative of ADP CR3).

(c) If at any time the membership interests of ADP CR3 shall have been acquired by DEF or its designee pursuant to the terms of that certain Pledge Agreement, by Accelerated Decommissioning Partners, LLC, in favor of DEF, dated as of the same date as this Agreement, or if DEF consents in writing, then disbursements shall be authorized upon presentation of a Decommissioning Certificate to pay for any cost necessary to achieve the ISFSI-Only Interim End State Conditions.

(d) If the assets of the Provisional Trust are insufficient to permit the payment in full of amounts to be paid pursuant to a Decommissioning Certificate, the Trustee shall have no liability with respect to such insufficiency and no obligation to use its own funds to pay the same.

4.02 Fees. The Trustee shall receive as exclusive compensation for its services such amounts as may from time to time be agreed to by the Trustee and ADP CR3.

4.03 Liquidation of Investments. At the direction of ADP CR3 or its Investment Manager pursuant to Authorized Instructions, the Trustee shall sell or liquidate such investments

of the Provisional Trust as may be specified, with the proceeds to be credited to the Provisional Trust.

4.04 Other Distributions. Upon termination pursuant to article 5, the Trustee shall distribute the assets of the Provisional Trust as directed by ADP CR3 in a Distribution Certificate.

ARTICLE 5

TERMINATION

5.01 Termination of Provisional Trust. The Provisional Trust shall terminate on the first to occur of (a) the completion of the ISFSI-Only Interim End-State Conditions (as evidenced by written notification of that fact to the Trustee by an Authorized Representative of ADP CR3) or (b) twenty-one (21) years after the death of the last survivor of each person who was an officer or director of ADP CR3 on the date of this Agreement and each of their descendants born on or prior to that date, as notified to the Trustee in a written notification from an Authorized Representative of ADP CR3. Prior to its termination, this Provisional Trust shall be irrevocable.

5.02 Distribution of Provisional Trust Upon Termination. Upon termination of this Provisional Trust, at the direction of ADP CR3 pursuant to Authorized Instructions, the Trustee shall liquidate the assets of the Provisional Trust and distribute them (including accrued, accumulated and undistributed net income), unless otherwise determined, ordered or required by any Governmental Authority with jurisdiction over the CR-3 Facility, to ADP CR3. An Authorized Representative will provide the Trustee with written notice(s) regarding the timing and amount of distributions to be made pursuant to this Section 5.02. The Trustee shall be permitted to rely conclusively upon any written notification received from an Authorized Representative relating to any determination, order or decision of Governmental Authorities, provided a copy of such determination, order or decision is included with the written notification.

ARTICLE 6

TRUSTEE

6.01 Authority of Trustee. The Trustee shall have the authority and discretion to manage and control the Subaccounts to the extent provided in this Agreement but does not guarantee the Subaccounts in any manner against investment loss or depreciation in asset value or guarantee the adequacy of the Subaccounts to satisfy the Decommissioning Costs.

6.02 Authorized Representative. “**Authorized Representative**” shall mean any person authorized by ADP CR3 or an Investment Manager to give Oral Instructions or Written Instructions with respect to the Provisional Trust or with respect to foreign exchange, derivative investments or information and transactional web based services provided by the Trustee or any direct or indirect subsidiary of [_____] (a “[_____] **Affiliate**”). “**Oral Instructions**” shall mean instructions expressed in spoken words received by the Trustee and “**Written Instructions**” shall mean written communications received by the Trustee by S.W.I.F.T., overnight delivery, postal services, email, on-line communication system or other method or system, each as specified by

the Trustee as available for use in connection with the services hereunder. Authorized Representatives shall include persons authorized by an Authorized Representative. Authorized Representatives, their signatures and the extent of their authority shall be provided by Written Instructions. ADP CR3 shall cause the Investment Manager to furnish the Trustee with Written Instructions identifying Authorized Representatives and their signatures. The Trustee may conclusively rely on the authority of such Authorized Representatives until it receives a Written Instruction to the contrary.

6.03 Authorized Instructions. The Trustee shall be entitled to rely upon any Oral or Written Instructions actually received by the Trustee and reasonably believed by the Trustee to be from an Authorized Representative (“**Authorized Instructions**”). ADP CR3 agrees that an Authorized Representative shall forward to the Trustee Written Instructions confirming Oral Instructions by the close of business of the same day that such Oral Instructions are given to the Trustee. The Trustee may act on such Oral Instructions but is not obligated to do so until Written Instructions are received. ADP CR3 agrees that the fact that Written Instructions confirming Oral Instructions are not received or that contrary Written Instructions are received by the Trustee shall in no way affect the validity or enforceability of transactions authorized by such Oral Instructions and effected by the Trustee. Provided, however, that if the Trustee has not yet acted upon Oral Instructions upon receipt of contrary Written Instructions, the Trustee shall be bound by such Written Instructions.

6.04 Authentication. If the Trustee receives Written Instructions that appear on their face to have been transmitted by an Authorized Representative via (i) email or other electronic method that is not secure, or (ii) secure electronic transmission containing applicable authorization codes, passwords or authentication keys, ADP CR3 understands and agrees that the Trustee cannot determine the identity of the actual sender of such Written Instructions and that the Trustee shall be entitled to conclusively presume that such Written Instructions have been sent by an Authorized Representative and are Authorized Instructions. ADP CR3 shall be responsible for ensuring that only Authorized Representatives transmit such Written Instructions to the Trustee and that all Authorized Representatives treat applicable user and authorization codes, passwords and authentication keys with extreme care.

6.05 Security Procedure. ADP CR3 acknowledges and agrees that it is fully informed of the protections and risks associated with the various methods of transmitting Written Instructions to the Trustee and that there may be more secure methods of transmitting Written Instructions than the method selected by the sender. ADP CR3 agrees that the security procedures, if any, to be followed in connection with a transmission of Written Instructions provide to it a commercially reasonable degree of protection in light of its particular needs and circumstances.

6.06 On-Line Systems. If an Authorized Representative elects to transmit Written Instructions through an on-line communication system offered by the Trustee, the use thereof shall be subject to any terms and conditions contained in a separate written agreement. If an Authorized Representative elects, with the Trustee’s prior consent, to transmit Written Instructions through an on-line communications service owned or operated by a third party, ADP CR3 agrees that the Trustee shall not be responsible or liable for the reliability or availability of any such service.

6.07 Securities. “**Securities**” shall include, without limitation, any common stock and other equity securities, depository receipts, limited partnership and limited liability company interests, bonds, debentures and other debt securities, notes or other obligations, and any instruments representing rights to receive, purchase, or subscribe for the same, or representing any other rights or interests therein (whether represented by a certificate or held in a Depository, with a Subcustodian or on the books of the issuer) that are acceptable to the Trustee. Subject to the terms hereof, ADP CR3 hereby authorizes the Trustee to hold any Securities in registered form in the name of the Trustee or one of its nominees. Securities held hereunder shall be segregated on the Trustee’s books and records from the Trustee’s own property. The Trustee shall be entitled to utilize Subcustodians and Depositories in connection with its performance hereunder. Securities and cash held through Subcustodians shall be held subject to the terms and conditions of the Trustee’s or a [_____] Affiliate’s agreements with such Subcustodians. Securities and cash deposited by the Trustee in a Depository will be held subject to the rules, terms and conditions of such Depository. Subcustodians may hold Securities in Depositories in which such Subcustodians participate. Unless otherwise required by local law or practice or a particular subcustodian agreement, Securities deposited with Subcustodians will be held in a commingled account in the name of the Trustee or a [_____] Affiliate for its clients. The Trustee shall identify on its books and records the Securities and cash belonging to the Provisional Trust, whether held directly or indirectly through Depositories or Subcustodians. In no event shall the Trustee be liable for any losses, costs, expenses, damages, liabilities and claims (“**Losses**”) arising out of the holding of Securities or cash in any particular country, including but not limited to, Losses resulting from nationalization, expropriation or other governmental actions; regulation of the banking or securities industry; exchange or currency controls or restrictions, devaluations or fluctuations or currency redenomination; availability of Securities or cash or market conditions which prevent the transfer of property or the execution of Securities transactions or affect the value of property (“**Country Risk Events**”).

6.08 Subcustodians. “**Subcustodian**” shall mean a bank or other financial institution (other than a Depository) that is utilized by the Trustee or by a [_____] Affiliate, in its discretion, in connection with the purchase, sale or custody of Securities or cash hereunder. The Trustee shall exercise reasonable care in the selection or retention, monitoring and continued use of Subcustodians in light of prevailing rules, practices, procedures and circumstances in the relevant market (the “**Required Care**”).

With respect to any Losses incurred by the Provisional Trust, ADP CR3, or any other person as a result of the acts or the failure to act by any Subcustodian (“**Operational Losses**,” which specifically excludes Losses arising out of or relating to Country Risk Events), the Trustee shall be liable for:

(a) Operational Losses with respect to Securities or cash held by the Trustee with or through a [_____] Affiliate; and

(b) Operational Losses with respect to Securities or cash held by the Trustee with or through a Subcustodian (other than a [_____] Affiliate) to the extent that such Operational Losses were directly caused by failure on the part of the Trustee to exercise Required Care.

With respect to all other Operational Losses not covered by clauses (a) and (b) above, the Trustee shall take appropriate action to recover Operational Losses from such Subcustodian, and Trustee's sole liability shall be limited to amounts recovered from such Subcustodian (exclusive of costs and expenses incurred by the Trustee).

In addition, the Trustee shall be liable for repayment to the Provisional Trust of cash credited to the Provisional Trust and credited to any relevant cash account of the Subcustodian that the Trustee is not able to recover from the Subcustodian (other than as a result of Country Risk Events).

6.09 Deposits. The Trustee may hold cash in accounts or may arrange to have such cash held by a [] Affiliate, Subcustodian, or with a Depository. Where cash is on deposit with the Trustee, a Subcustodian, a [] Affiliate or a Depository, it will be subject to the terms of this Agreement and such deposit terms and conditions as may be issued by such entity from time to time.

6.10 Depositories. "**Depository**" shall include the Book-Entry System, the Depository Trust Company, Euroclear, Clearstream Banking S.A., the Canadian Depository System, CLS Bank International and any other securities depository, book-entry system or clearing agency (and their respective successors and nominees) authorized to act as a securities depository, book-entry system or clearing agency pursuant to Applicable Law. "**Book-Entry System**" shall mean the U.S. Federal Reserve/Treasury book-entry system for receiving and delivering Securities, its successors and nominees. The Trustee shall have no liability whatsoever for the action or inaction of any Depository or for any Losses resulting from the maintenance of Securities with a Depository. The Trustee shall be liable to repay cash credited to the Provisional Trust and credited to any relevant account at such Depository (other than as a result of Country Risk Events).

6.11 Overdrafts and Indebtedness. The Trustee may, in its sole discretion, advance funds in any currency hereunder. If an overdraft occurs in the Provisional Trust (including, without limitation, overdrafts incurred in connection with the settlement of securities transactions, funds transfers or foreign exchange transactions) or if ADP CR3 is for any other reason indebted to the Trustee, ADP CR3 agrees to repay the Trustee on demand or upon becoming aware of the amount of the advance, overdraft or indebtedness, plus accrued interest at a rate then charged by the Trustee to its institutional custody clients in the relevant currency.

6.12 Securing Repayment. In order to secure repayment of the Provisional Trust's obligations to the Trustee, ADP CR3 on behalf of the Provisional Trust hereby pledges and grants to the Trustee a continuing first lien and security interest in, and right of setoff against all of the Provisional Trust's right, title and interest in each Subaccount and the Securities, money and other property now or hereafter held in the Provisional Trust (including proceeds thereof); provided, that ADP CR3 does not grant the Trustee a security interest in any Securities issued by an affiliate of the Trustee (as defined in Section 23A of the Federal Reserve Act). ADP CR3 represents that the Provisional Trust owns the Securities in the Provisional Trust free and clear of all liens, claims, security interests, and the first lien and security interest granted herein shall be subject to no setoffs, counterclaims, or other liens prior to or on a parity with it in favor of any other party (other than specific liens granted preferred status by statute). ADP CR3 shall take any

additional steps required to assure the Trustee of such priority security interest, including notifying third parties or obtaining their consent. The Trustee shall be entitled to collect from the Provisional Trust sufficient cash for reimbursement, and if such cash is insufficient, to sell the Securities in the Provisional Trust to the extent necessary to obtain reimbursement. In this regard, the Trustee shall be entitled to all the rights and remedies of a pledgee and secured creditor under Applicable Law then in effect.

6.13 Pricing and Other Data. For purposes of this Section, “**Market Data**” shall mean pricing or other data related to Securities and other assets. Market Data includes but is not limited to Securities identifiers, valuations, bond ratings, classification data, and other data received from Investment Managers and others. In providing Market Data related to the Provisional Trust in connection with this Agreement, the Trustee is authorized to use pricing vendors, brokers, dealers, Investment Managers, Authorized Representatives, Subcustodians, Depositories and any other person providing Market Data to the Trustee (“**Data Providers**”). The Trustee may follow Authorized Instructions providing pricing or other Market Data, even if such instructions direct the Trustee to override its usual procedures and Market Data sources. The Trustee shall be entitled to rely without inquiry on all Market Data (and all Authorized Instructions related to Market Data) provided to it, and the Trustee shall not be liable for any Losses incurred as a result of Market Data that contains errors or that is incomplete. ADP CR3 acknowledges that certain pricing or valuation information may be based on calculated amounts rather than actual market transactions and may not reflect actual market values, and that the variance between such calculated amounts and actual market values may be material. The Trustee shall not be required to inquire into the pricing or any Securities or other assets even though the Trustee may receive different prices for the same Securities or assets. Market Data may be the intellectual property of the Data Providers, which may impose additional terms and conditions upon ADP CR3’s use of the Market Data. The additional terms and conditions can be found on the Data Terms Website, at [] (“**Data Terms Website**”), or any successor website the address of which is provided by the Trustee to ADP CR3. ADP CR3 agrees to those terms as they are posted on the Data Terms Website from time to time. Certain service providers hired by the Trustee to provide or to assist the Trustee with providing value-added services requested by ADP CR3 (“**Third Party Service Providers**”) may not utilize ADP CR3’s directed price due to system constraints or differing data sources. Performance measurement and analytic services may use different data sources than those used by the Trustee to provide Market Data for the Provisional Trust, which may result in differences between custodial reports and performance measurement and analytic reports.

6.14 Books of Account. The Trustee shall keep separate true and correct books of account with respect to each Subaccount, which books of account shall at all reasonable times be open to inspection by ADP CR3 or its duly appointed representatives. The Trustee shall, upon written request of ADP CR3, permit government agencies, such as the NRC, to inspect the books of account of each Subaccount. The Trustee shall furnish to ADP CR3 on or about the tenth Business Day of each month a statement for each Subaccount showing, with respect to the preceding calendar month, the balance of assets on hand at the beginning of such month, all receipts, investment transactions, and disbursements which took place during such month and the balance of assets on hand at the end of such month. Upon the expiration of ninety (90) days from the date of filing such written reports with ADP CR3, the Trustee shall be forever released and discharged from all liability or accountability to anyone with respect to all acts and transactions

shown in such written reports, except such acts or transactions as to which ADP CR3 shall take exception by written notice to the Trustee within such ninety (90) day period; provided, however, that nothing contained in this Section 6.14 shall be deemed to relieve the Trustee of any liability imposed pursuant to Section 6.16. In the event that any exception taken by ADP CR3 cannot be amicably adjusted, ADP CR3 may, within one (1) year of the date of such exception, file the written report in a court having jurisdiction and upon the audit thereof any and all such exceptions which may not have been amicably settled shall be heard and adjudicated. Any exception not so filed within one (1) year shall be deemed waived and any liability of the Trustee with respect thereto shall be deemed released. All records and accounts maintained by the Trustee with respect to the Provisional Trust shall be preserved for a period of four (4) years. Upon the expiration of such required retention period, the Trustee shall have the right to destroy such records and accounts after first notifying ADP CR3 in writing of its intention and transferring to ADP CR3 (originals or copies, as appropriate), any records and accounts requested by it.

6.15 Centralized Functions. [] is a global financial organization that provides services to clients through its affiliates and subsidiaries in multiple jurisdictions (the “[] *Group*”). The [] Group may centralize functions, including audit, accounting, risk, legal, compliance, sales, administration, product communication, relationship management, storage, compilation and analysis of customer-related data, and other functions (the “*Centralized Functions*”) in one or more affiliates, subsidiaries and third party service providers. Solely in connection with the Centralized Functions, (i) ADP CR3 consents to the disclosure of, and authorizes the Trustee to disclose, information regarding ADP CR3 and its accounts (“*Customer-Related Data*”) to the [] Group and to its third party service providers who are subject to confidentiality obligations with respect to such information and (ii) the Trustee may store the names and business addresses of ADP CR3’s employees on the systems or in the records of the [] Group or its service providers. In addition, the [] Group may aggregate Customer-Related Data with other data collected and/or calculated by the [] Group, and the [] Group will own all such aggregated data, provided that the [] Group shall not distribute the aggregated data in a format that identifies Customer-Related Data with ADP CR3. ADP CR3 is authorized to consent to the foregoing and confirms that the disclosure to and storage by the [] Group of such information does not violate any relevant data protection legislation. In addition, the Trustee may disclose Customer-Related Data as required by Applicable Law or at the request of any Governmental Authority.

6.16 Standard of Care/Limitation on Liability. In performing its duties under this Agreement, the Trustee shall exercise the same care and diligence that it would devote to its own property in like circumstances.

(a) The Trustee shall not be liable for Losses except to the extent that such Losses are a direct result of the Trustee’s negligence or willful misconduct.

(b) The Trustee shall not be liable to ADP CR3, or the Provisional Trust for indirect, consequential or special damages arising in connection with this Agreement even if the Trustee has been advised of the possibility of such damages.

(c) The Trustee shall not be responsible for the title, validity or genuineness of any Securities or evidence of title thereto received by it or delivered by it pursuant to this Agreement or for Securities held hereunder being freely transferable or deliverable without encumbrance in any relevant market;

(d) The Trustee shall not be responsible for the failure to receive payment of, or the late payment of, income or other payments due to the Provisional Trust;

(e) The Trustee shall have no duty to take any action to collect any amount payable on Securities in default or if payment is refused after due demand and presentment;

(f) The Trustee may obtain the advice of counsel and shall be fully protected with respect to anything done or omitted by it in good faith in conformity with such advice;

(g) The Trustee shall have no duty or responsibility to inquire into, make recommendations, supervise, or determine the suitability of any transactions affecting the Provisional Trust and shall have no liability with respect to ADP CR3's or an Authorized Representative's decision to invest in Securities or to hold cash in any currency;

(h) The Trustee shall have no responsibility if Applicable Law or the rules or procedures imposed by Depositories, exchange controls, or asset freezes at any time prohibit or impose burdens or costs on the transfer of Securities or cash to, by or for the Provisional Trust; and the Trustee shall have no liability for any Losses arising from the insolvency of any Person, including but not limited to a Subcustodian, Depository, broker, bank, and a counterparty to the settlement of a transaction or to a foreign exchange transaction, except as provided in Sections 6.08 and 6.10 above.

(i) All credits to the Provisional Trust of the proceeds of sales and redemptions of property and of anticipated income from property shall be conditional upon receipt by the Trustee of final payment and may be reversed to the extent final payment is not received. In the event that the Trustee in its discretion advances funds to the Provisional Trust to facilitate the settlement of any transaction, the Provisional Trust shall, immediately upon demand, reimburse the Trustee for such amounts plus any interest thereon, and to secure such obligations as well as any other obligations of the Provisional Trust hereunder, ADP CR3, to the extent permitted by Applicable Law, hereby grants a continuing security interest in and pledges to the Trustee the property in the Provisional Trust and any funds so credited.

(j) The provisions of this Section 6.16 and the right of the Trustee to claim the benefit thereof shall survive any termination of this Agreement and any resignation or removal of the Trustee.

6.17 Indemnification. ADP CR3 shall indemnify and hold harmless the Trustee from and against all losses, costs expenses, damages, liabilities and claims, including reasonable counsel fees and expenses in third party suits and in a successful defense of claims asserted by ADP CR3, relating to or arising out of the performance of the Trustee's obligations under this Agreement, except to the extent resulting from the Trustee's negligence or willful misconduct. This indemnification shall survive the termination of this Agreement.

6.18 Force Majeure. Notwithstanding anything in this Agreement to the contrary, the Trustee shall not be responsible or liable for any failure to perform under this Agreement or for any Losses to the Provisional Trust resulting from any event beyond the reasonable control of the Trustee.

6.19 Foreign Exchange. Any foreign exchange transaction effected by the Trustee in connection with this Agreement may be entered with the Trustee or a [] Affiliate acting as a principal or otherwise through customary channels. ADP CR3, the Investment Manager or other fiduciary may issue standing Written Instructions with respect to foreign exchange transactions, but the Trustee may establish rules or limitations concerning any foreign exchange facility made available to the Provisional Trust. With respect to foreign exchange transactions done through [] [Global Markets FX Desk], it is acting as a principal counterparty on its own behalf and is not acting as a fiduciary or agent for, or in connection with, ADP CR3, the Trust, or an Investment Manager.

6.20 Merger of Trustee. Any corporation or other legal entity into which the Trustee may be merged or with which it may be consolidated, or any corporation or other legal entity resulting from any merger or consolidation to which the Trustee shall be a party, or any corporation or other legal entity to which the corporate trust functions of the Trustee may be transferred, shall be the successor Trustee under this Agreement without the necessity of executing or filing any additional acceptance of this Agreement or the performance of any further act on the part of any other parties hereto.

6.21 Required Disclosure. With respect to Securities that are registered under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*") or that are issued by an issuer registered under the Investment Company Act of 1940, as amended, Section 14(b) of the Exchange Act and Rule 14b-2 promulgated thereunder require the Trustee to disclose to issuers of such Securities, upon their request, the name, address and securities position of the Trustee's clients who are "beneficial owners" (as defined in the Exchange Act) of the issuer's Securities, unless the beneficial owner objects to such disclosure. The Exchange Act defines a "beneficial owner" as any person who has or shares the power to vote a security (pursuant to an agreement or otherwise) or who directs the voting of a security. ADP CR3 has designated on the signature page hereof, whether: (1) as beneficial owner, it objects to the disclosure of its name, address and securities position to any U.S. issuer that requests such information pursuant to the Exchange Act for the specific purpose of direct communications between such issuer and ADP CR3; or (2) the Trustee shall contact the Investment Manager with respect to relevant Securities to make the decision whether it objects to the disclosure of the beneficial owner's name, address and securities position to any U.S. issuer that requests such information pursuant to the Exchange Act.

With respect to Securities issued outside the United States, the Trustee shall disclose information required by any Depository, the laws or regulations of the relevant jurisdiction, rules of the relevant stock exchange or organizational documents of an issuer. The Trustee is also authorized to supply any information regarding the Provisional Trust that is required by any Applicable Law now or hereafter in effect. ADP CR3 agrees to supply the Trustee with any required information if it is not otherwise reasonably available to the Trustee.

6.22 Designation and Qualification of Successor Trustee(s).

(a) At any time during the term of this Provisional Trust, ADP CR3 shall have the right to remove the Trustee (at ADP CR3's sole discretion) acting hereunder and appoint another qualified entity as a successor Trustee upon thirty (30) days' notice in writing to the Trustee, or upon such shorter notice as may be acceptable to the Trustee. In the event that the bank or trust company serving as Trustee or successor Trustee shall: (i) become insolvent or admit in writing its insolvency; (ii) be unable or admit in writing its inability to pay its debts as such debts mature; (iii) make a general assignment for the benefit of creditors; (iv) have an involuntary petition in bankruptcy filed against it; (v) commence a case under or otherwise seek to take advantage of any bankruptcy, reorganization, insolvency, readjustment of debt, dissolution or liquidation law, statute, or proceeding or (vi) resign, ADP CR3 shall appoint a successor Trustee as soon as practicable. In the event of any such removal or resignation, the Trustee or successor Trustee shall have the right to have its accounts finalized as provided in Section 6.14. Any successor to ADP CR3, as provided herein, shall have the same right to remove and to appoint any Trustee or successor Trustee.

(b) Any successor Trustee shall be a bank or trust company incorporated and doing business within the United States and having a combined capital and surplus of at least two hundred fifty million dollars (\$250,000,000), if there be such an institution willing, able and legally qualified to perform the duties of Trustee hereunder upon reasonable or customary terms.

(c) Any successor Trustee shall qualify by a duly acknowledged acceptance of this Agreement, delivered to ADP CR3. Upon acceptance of such appointment by the successor Trustee, the Trustee shall assign, transfer and pay over to such successor Trustee the assets then constituting the Provisional Trust. Any successor Trustee shall have all the rights, powers, duties and obligations herein granted to the original Trustee.

6.23 Exoneration from Bond. No bond or other security shall be exacted or required of any Trustee or successor Trustee appointed pursuant to this Agreement.

6.24 Resignation. The Trustee or any successor Trustee hereof may resign and be relieved as Trustee at any time without prior application to or approval by or order of any court by a duly acknowledged instrument, which shall be delivered to ADP CR3 by the Trustee no less than thirty (30) days prior to the effective date of the Trustee's resignation or upon such shorter notice as may be acceptable to ADP CR3. If for any reason ADP CR3 cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee and the cost of making such application shall be borne by ADP CR3.

6.25 Transactions With Third Parties. No person or organization dealing with the Trustee hereunder shall be required to inquire into or to investigate its authority for entering into any transaction or to see to the application of the proceeds of any such transaction.

6.26 Tax, Returns and Other Reports. ADP CR3 shall prepare and file any federal, state and local income or franchise tax returns and other reports (including estimated tax returns and information returns) as may be required from time to time with respect to the Provisional

Trust, and the Trustee agrees to provide ADP CR3 in a timely manner with any information which is necessary to such filings, if any, which information is not in the possession of ADP CR3. The Trustee shall prepare and submit to ADP CR3 in a timely manner all information requested by ADP CR3 regarding the amounts required to be included in ADP CR3's federal, state and local income tax return and other reports (including estimated tax returns and information returns). Any interest or penalty charges assessed against the Provisional Trust pursuant to Chapters 67 or 68 of the Internal Revenue Code of 1986, as amended, or pursuant to any similar state or local provisions, as a result of the Trustee's failure to comply with this Section 6.26 shall be borne by ADP CR3 unless caused by the Trustee's negligence or willful misconduct, in which case such interest or penalty charges shall be borne by the Trustee and not ADP CR3. The Trustee agrees to notify ADP CR3 in writing within ten (10) days of the commencement of the audit of the Provisional Trust's federal, state or local tax returns, and to participate with ADP CR3, on behalf of the Provisional Trust in such audits and related inquiries. The Trustee further agrees to provide ADP CR3 with any additional information in its possession regarding the Provisional Trust which may be requested by ADP CR3 to be furnished in an audit of ADP CR3's federal, state or local tax returns.

ARTICLE 7

POWERS OF THE TRUSTEE

7.01 General Powers. In the administration of the Provisional Trust, the Trustee shall have and exercise the following powers and authority at the direction of an Investment Manager where such powers and authority relate to a separate Investment Account established for an Investment Manager, and in its sole discretion where such powers and authority relate to investments made by the Trustee in its capacity as an Investment Manager, if and only to the extent the Trustee has been appointed and has accepted such appointment as an Investment Manager in accordance with Section 8.01:

- (a) to purchase, receive or subscribe for any Securities or other property and to retain in trust such Securities or other property;
- (b) to sell, exchange, convey, transfer, lend, or otherwise dispose of any property held in the Provisional Trust and to make any sale by private contract or public auction; and no person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity, expediency or propriety of any such sale or other disposition;
- (c) to forward to the Authorized Representative designated by ADP CR3 proxies or ballots for any Securities held in the Provisional Trust in a form to enable the Authorized Representative to effect the voting of proxies, excluding bankruptcy matters to which the Trustee's duties are set forth in paragraph (e) below;
- (d) to submit or cause to be submitted to ADP CR3 or the Investment Manager, as designated by ADP CR3, information received by the Trustee, or summaries of information, regarding ownership rights pertaining to property held in the Provisional Trust, in

accordance with the Trustee's practices, excluding bankruptcy matters to which the Trustee's duties are set forth in paragraph (e) below;

(e) to forward to the Authorized Representative designated by ADP CR3 an initial notice of bankruptcy cases relating to Securities held in the Provisional Trust and a notice of any required action related to such bankruptcy cases as may be actually received by the Trustee. No further action or notification related to the bankruptcy case shall be required absent the specific agreement of the parties hereto;

(f) to exercise any rights appurtenant to any such Securities for the conversion thereof into other Securities, or to exercise rights or options to subscribe for or purchase additional Securities, and to make any and all necessary payments with respect to any such conversion or exercise, as well as to write options with respect to such Securities and to enter into any transactions in other forms of options with respect to any options which the Provisional Trust has outstanding at any time;

(g) to join in, dissent from or oppose the reorganization, recapitalization, consolidation, sale or merger of corporations or properties of which the Provisional Trust may hold Securities or in which it may be interested, upon such terms and conditions as deemed wise, to pay any expenses, assessments or subscriptions in connection therewith, and to accept any Securities or other property, whether or not trustees would be authorized to invest in such Securities or other property, which may be issued upon any such reorganization, recapitalization, consolidation, sale or merger and thereafter to hold the same, without any duty to sell;

(h) to purchase, enter, sell, hold, and generally deal in any manner in and with contracts for the immediate or future delivery of financial instruments of any issuer or of any other property and in foreign exchange or foreign exchange contracts; to grant, purchase, sell, exercise, permit to expire, permit to be held in escrow, and otherwise to acquire, dispose of, hold and generally deal in any manner with and in all forms of options in any combination.

Settlements of transactions may be effected in trading and processing practices customary in the jurisdiction or market where the transaction occurs. ADP CR3 acknowledges that this may, in certain circumstances, require the delivery of cash or Securities (or other property) without the concurrent receipt of Securities (or other property) or cash and, in such circumstances, ADP CR3 shall have sole responsibility for non-receipt of payment (or late payment) by the counterparty.

7.02 Specific Powers of the Trustee. The Trustee shall have the following powers and authority, to be exercised in its sole discretion with respect to the Provisional Trust:

(a) to employ such attorneys, accountants, custodians, Subcustodians, engineers, contractors, clerks and agents as may be reasonably necessary to carry out the purposes of the Provisional Trust, the reasonable cost of which shall be borne by ADP CR3, and to delegate to other persons such ministerial powers and duties as the Trustee may deem advisable;

(b) to cause any investment, either in whole or in part, in the Provisional Trust to be registered in, or transferred into, the Trustee's name or the names of a nominee or

nominees, including but not limited to that of the Trustee or an affiliate of the Trustee, a Depository, or to retain any such investment unregistered or in a form permitting transfer by delivery, provided that the books and records of the Trustee shall at all times show that such investments are a part of the Provisional Trust; and to cause any such investment, or the evidence thereof, to be held by the Trustee, in a Depository, or by any other entity or in any other manner permitted by Applicable Law;

(c) to make, execute and deliver, as Trustee, any and all deeds, leases, mortgages, conveyances, waivers, releases or other instruments in writing necessary or desirable for the accomplishment of any of the foregoing powers;

(d) to defend against or participate in any legal actions involving the Provisional Trust or the Trustee in its capacity stated herein, in the manner and to the extent it deems advisable;

(e) to form corporations and to create trusts, to hold title to any Security or other property, to enter into agreements creating partnerships or joint ventures for any purpose or purposes determined by the Trustee to be in the best interests of the Provisional Trust;

(f) to establish and maintain such separate Investment Accounts in accordance with the Authorized Instructions of ADP CR3 as ADP CR3 deems necessary for the proper administration of the Provisional Trust, or as determined to be necessary by the Trustee;

(g) to hold uninvested cash in its commercial bank or that of an affiliate, as it shall deem reasonable or necessary; and

(h) to generally take all action, whether or not expressly authorized, which the Trustee may deem necessary or desirable for the protection of the Provisional Trust.

Notwithstanding anything else in this Agreement to the contrary, including, without limitation, any specific or general power granted to the Trustee and to the Investment Managers, including the power to invest in real property, no portion of the Provisional Trust shall be invested in real estate (except for investments tied to market indexes or other non-nuclear sector common trust funds or mutual funds). For this purpose "real estate" includes, but is not limited to, real property, leaseholds or mineral interests.

The powers described in this Section 7.02 may be exercised by the Trustee with or without instructions from ADP CR3 or an Authorized Representative, but where the Trustee acts on Authorized Instructions, the Trustee shall be fully protected as described in Section 8.01(b). Without limiting the generality of the foregoing, the Trustee shall not be liable for the acts or omissions of any person appointed under paragraph (a) of Section 7.02 pursuant to Authorized Instructions.

ARTICLE 8

INVESTMENTS

8.01 General Investment Powers.

(a) ADP CR3 may appoint one or more investment managers, which may, subject to the Trustee's written consent, include the Trustee, to direct the investment of all or part of the assets of the Provisional Trust (an "***Investment Manager***"). ADP CR3 shall also have the right to remove such Investment Manager(s). ADP CR3, its affiliates, and its subsidiaries are prohibited from being engaged as investment manager for the funds or from giving day-to-day management direction of the funds' investments or direction on individual investments by the funds, except in the case of passive fund management of trust funds where management is limited to investments tracking market indices.

(b) Whenever such appointment is made, ADP CR3 shall provide written notice of such appointment to the Trustee, shall specify the portion of the Provisional Trust with respect to which the Investment Manager has been designated, and shall instruct the Trustee to segregate into specified accounts those assets designated for management by each Investment Manager (an "***Investment Account***"). To the extent that assets are segregated into an Investment Account, the Trustee shall be released and relieved of all investment duties, responsibilities and liabilities customarily or statutorily incident to a trustee with respect to the assets in each such Investment Account, and as to such Investment Account the Trustee shall act as custodian.

(c) ADP CR3 shall cause the Investment Manager to certify in writing to the Trustee the identity of the person or persons authorized to give instructions or directions to the Trustee on behalf of such Investment Manager and to provide specimen signatures of such persons. The Trustee may continue to rely upon and comply with all such certifications unless and until otherwise notified in writing by ADP CR3 or an Investment Manager, as the case may be.

8.02 Direction by Investment Manager(s).

(a) An Investment Manager designated by ADP CR3 to manage an Investment Account shall have authority to manage and to direct the acquisition and disposition of the assets of the Provisional Trust, or a portion thereof, as the case may be, and the Trustee shall exercise the powers set forth in this Article 8 only when, if, and in the manner directed by ADP CR3 in writing, and shall not be under any obligation to invest or otherwise manage any assets in the Investment Account. An Investment Manager shall have the power and authority, exercisable in its sole discretion at any time, and from time to time, to issue and place orders for the purchase or sale of portfolio securities directly with qualified brokers or dealers. The Trustee, upon proper notification from an Investment Manager, shall settle the transactions in accordance with the appropriate trading authorizations. ADP CR3 shall cause each Investment Manager to promptly provide to the Trustee written notification of each transaction and shall cause each such Investment Manager to confirm in writing (or cause the broker or dealer to confirm in writing) the settlement of each such transaction to the Trustee and to ADP CR3. Such notification shall be proper authority for the Trustee to pay for portfolio securities purchased against receipt thereof

and to deliver portfolio securities sold against payment therefor, as the case may be. All directions to the Trustee by an Investment Manager shall be in writing and shall be signed by a person who has been certified by such Investment Manager pursuant to Section 8.01 as authorized to give instructions or directions to the Trustee.

(b) Should an Investment Manager at any time elect to place security transactions directly with a broker or a dealer, the Trustee shall not recognize such transaction unless and until it has received instructions or confirmation of such fact from an Investment Manager. Should an Investment Manager direct the Trustee to utilize the services of any person with regard to the assets under its management or control, such instructions shall be in writing and shall specifically set forth the actions to be taken by the Trustee as to such services. In the event that an Investment Manager places security transactions directly or directs the utilization of a service, such Investment Manager shall be solely responsible for the acts of such persons. The sole duty of the Trustee as to such transactions shall be incident to its duties as custodian.

(c) The authority of an Investment Manager and the terms and conditions of the appointment and the retention of an Investment Manager shall be the sole responsibility of ADP CR3, and the Trustee shall not be deemed to be a party or to have any obligations under any agreement with an Investment Manager. Any duty of supervision or review of the acts, omissions or overall performance of each Investment Manager shall be the exclusive responsibility of ADP CR3, and the Trustee shall have no duty to review any securities or other assets purchased by an Investment Manager, or to make suggestions to an Investment Manager or to ADP CR3 with respect to the exercise or non-exercise of any power by an Investment Manager.

8.03 Prohibition Against Nuclear Sector Investments. Any Investment Manager appointed pursuant to Section 8.01(a) is prohibited from investing the funds in securities or other obligations of ADP CR3, its affiliates, or its successors or assigns, or any entity owning one or more nuclear power plants, except for investments tied to market indexes or other non-nuclear-sector mutual funds.

ARTICLE 9

REGULATORY MATTERS

9.01 USA PATRIOT Act. Section 326 of the U.S. Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (including its implementing regulations) requires the Trustee to implement a customer identification program pursuant to which the Trustee must obtain certain information from ADP CR3 in order to verify ADP CR3's identity prior to establishing an Account. Accordingly, prior to establishing an Account, ADP CR3 will be required to provide the Trustee with certain information, including ADP CR3's name, physical address, tax identification number and other pertinent identifying information, to enable the Trustee to verify ADP CR3's identity. ADP CR3 acknowledges that the Trustee cannot establish an Account unless and until the Trustee has successfully performed such verification.

9.02 Sanctions

(a) Throughout the term of this Agreement, ADP CR3: (i) will have in place and will implement policies and procedures designed to prevent violations of Sanctions, including measures to accomplish effective and timely scanning of all relevant data with respect to incoming or outgoing assets or transactions relating to this Agreement; (ii) will ensure that neither ADP CR3 nor any of its Affiliates is an individual or entity that is, or is owned or controlled by an individual or entity that is: (A) the target of Sanctions or (B) located, organized or resident in a country or territory that is, or whose government is, the target of Sanctions and (iii) will not, directly or indirectly, use the Provisional Trust in any manner that would result in a violation by ADP CR3 or the Trustee of Sanctions.

(b) ADP CR3 will promptly provide to the Trustee such information as the Trustee reasonably requests in connection with the matters referenced in this Section 9.02, including information regarding the Provisional Trust, the assets and the source thereof, and the identity of any individual or entity having or claiming an interest therein. The Trustee may decline to act or provide services in respect of the Provisional Trust, and take such other actions as it, in its reasonable discretion, deems necessary or advisable, in connection with the matters referenced in this Section 9.02. If the Trustee declines to act or provide services as provided in the preceding sentence, except as otherwise prohibited by Applicable Law or official request, the Trustee will inform ADP CR3 as soon as reasonably practicable.

ARTICLE 10

MISCELLANEOUS

10.01 Headings. The section headings set forth in this Agreement and the Table of Contents are inserted for convenience of reference only and shall be disregarded in the construction or interpretation of any of the provisions of this Agreement.

10.02 Interpretation. When a reference is made in this Agreement to an Article, Section, Schedule or Exhibit, such reference shall be to an Article or a Section of, or Schedule or Exhibit to, this Agreement unless otherwise indicated. Any word contained in the text of this Agreement shall be read as the singular or plural and as the masculine, feminine or neuter as may be applicable or permissible in the particular context. Unless otherwise specifically stated, the word "person" shall be taken to mean and include an individual, partnership, association, trust, company or corporation.

10.03 Severability of Provisions. If any provision at this Agreement or its application to any person or entity or in any circumstances shall be invalid and unenforceable, the application of such provision to persons and in circumstances other than those as to which it is invalid or unenforceable and the other provisions of this Agreement, shall not be affected by such invalidity or unenforceability.

10.04 Delivery of Notices Under Agreement. Any notice, direction or instruction required by this Agreement to be given to ADP CR3 or the Trustee shall be deemed to have been

properly given when delivered by electronic mail acknowledged by return email from the recipient, or by postage prepaid registered or certified mail, to the person to be notified as set forth below:

If to ADP CR3:

ADP CR3, LLC
[ADDRESS]
[EMAIL]
Attention: General Counsel

If to the Trustee:

[TRUSTEE]
[ADDRESS]

[EMAIL]
Attention: []

ADP CR3 or the Trustee may change the above address by delivering notice thereof in writing to the other party.

10.05 Alterations and Amendments.

(a) The Trustee and ADP CR3 understand and agree that modifications or amendments may be required to this Agreement, and to the exhibits hereto, from time to time to effectuate the purpose of the Provisional Trust and comply with Applicable Law, any Order, any changes in tax laws, Regulations or rulings (whether published or private) of the Internal Revenue Service and any similar state taxing authority, and any other changes to the laws applicable to ADP CR3 and the CR-3 Facility. Subject to Section 10.05(d) below, this Agreement, and the exhibits hereto, may be altered or amended to the extent necessary or advisable to effectuate such purposes or to comply with such Applicable Law, Order or changes, and to effectuate the disbursement provisions of Article 4.

(b) Otherwise, this Agreement, and the exhibits hereto, may be amended, modified or altered for any purpose requested by ADP CR3 so long as such amendment, modification or alteration does not affect the use of the assets of the Provisional Trust to pay ADP CR3 the funds pursuant to the Decommissioning Agreement.

(c) Any alteration or amendment to, or modification of, this Agreement or an exhibit hereto must be in writing and signed by ADP CR3 and the Trustee. The Trustee shall execute any such alteration, modification or amendment required to be executed by it and shall accept and be governed by any amended, modified or altered schedule delivered to it but shall have no duty to inquire or make any investigation as to whether any amendment, modification or alteration is consistent with this Section 10.05.

(d) This Agreement may not be amended in any material respect without thirty (30) working days' prior written notification to the NMSS Director. The Agreement may

not be amended if the Trustee receives prior written notice of objection from the NMSS Director within the notice period.

10.06 Successors and Assigns. Subject to the provisions of Sections 2.06 and 6.01, this Agreement shall be binding upon and inure to the benefit of ADP CR3 and the Trustee and their respective successors, assigns, personal representatives, executors and heirs.

10.07 Governing Law.

(a) This Agreement, the Provisional Trust and all questions pertaining to their validity, construction and administration shall be interpreted, construed and determined in accordance with the internal substantive laws (and not the choice of law rules) of the Commonwealth of Pennsylvania to the extent not superseded by federal law. All actions and proceedings brought by the Trustee relating to or arising from, directly or indirectly, this Agreement may be litigated in courts located in the Commonwealth of Pennsylvania, and ADP CR3 hereby submits to the jurisdiction of such courts. ADP CR3 and the Trustee hereby waive the right to a trial by jury in any action or proceeding brought hereunder.

(b) To the extent that, in any jurisdiction, ADP CR3 has or hereafter may acquire, or is or hereafter may be entitled to claim, for itself or its assets, immunity (sovereign or otherwise) from suit, execution, attachment (before or after judgment) or any other legal process brought by or on behalf of the Trustee and arising with respect to this Provisional Trust or the Trustee's functions hereunder, ADP CR3 irrevocably agrees not to claim, and hereby waives, such immunity.

10.08 Accounting Year. The Provisional Trust shall operate on an accounting year which coincides with the calendar year, January 1 through December 31.

10.09 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

10.10 Decommissioning Liability. Nothing in this Agreement or in any amendment is intended to impose any responsibility on the Trustee for overseeing or paying the Decommissioning Costs other than, in the case of the Trustee, the disbursement of funds in accordance with Article 4.

10.11 Limitation on Trustee Liability. Notwithstanding anything in this Agreement to the contrary, the Trustee shall not be responsible or liable for its failure to perform under this Agreement or for any losses to the Provisional Trust resulting from any event beyond the reasonable control of the Trustee, its agents or Subcustodians, including but not limited to nationalization, strikes, expropriation, devaluation, seizure or similar action by any Governmental Authority, de facto or de jure; or enactment, promulgation, imposition or enforcement by any such Governmental Authority of currency restrictions, exchange controls, levels or other charges affecting the Provisional Trust's property; or the breakdown, failure or malfunction of any utilities or telecommunications systems; or any order or regulation of any banking or securities industry including changes in the market rules and market conditions affecting the execution or settlement of transactions; or acts of war, terrorism, insurrection or

revolution; or acts of God; or any other similar event. This Section 10.11 shall survive the termination of this Agreement.

10.12 Entire Agreement. This Agreement constitutes the entire agreement between ADP CR3 and the Trustee and supersedes any prior understandings, agreements or representations by or between the parties, written or oral, to the extent related in any manner to the subject matter hereof.

10.13 Representation. ADP CR3 and the Trustee each hereby represent and warrant to the other that it has full authority to enter into this Agreement upon the terms and conditions hereof and that the individual executing this Agreement on its behalf has the requisite authority to bind it to this Agreement.

[SIGNATURE PAGE FOLLOWS]

ADP CR3, LLC

By: _____

Name: _____

Title: _____

[TRUSTEE]

By: _____

Name: _____

Title: _____

EXHIBIT A

DECOMMISSIONING CERTIFICATE NO. _____

The undersigned Authorized Representative of ADP CR3, LLC, a Delaware limited liability company (the "**ADP CR3**"), being duly authorized and empowered to execute and deliver this Decommissioning Certificate, hereby certifies that payments in the amounts and to the payees listed below are for obligations duly incurred by ADP CR3 for the Decommissioning of the CR-3 Facility under Applicable Law and hereby directs the Trustee of the Provisional Trust, pursuant to Article 4 of the Provisional Trust Agreement to pay to each payee listed, including ADP CR3 if so listed, (Payees) in Exhibit 1 hereto, the amounts set forth therein, and certifies that the payments requested are proper disbursements of the Provisional Trust. The requested payments should be made from the [PROVISIONAL MILESTONE SUBACCOUNT / PROVISIONAL IOI SUBACCOUNT].

Accordingly, request is hereby made that the Trustee provide for the withdrawal of \$ _____ in order to permit payment of such sum to be made to the Payees. Trustee is further requested to disburse such sum, once withdrawn, directly to such Payees in the following manner: [CHECK/WIRE TRANSFER/ _____] on or before _____, 20____.

ADP CR3, LLC

By: _____
Name:
Authorized Representative:

Exhibit A-1

EXHIBIT H-1
FORM OF SUPPORT AGREEMENT
BETWEEN
NORTHSTAR GROUP SERVICES, INC.
AND
ADP CR3, LLC AND ADP SF1, LLC

This Support Agreement (this "Agreement"), dated as of _____, 2019, is made by and between NorthStar Group Services, Inc., a Delaware corporation ("Parent"), and ADP CR3, LLC, a Delaware limited liability company ("ADP CR3"), and ADP SF1, LLC, a Delaware limited liability company ("ADP SF1," and together with ADP CR3, the "Subsidiaries"). Parent and Subsidiaries are referred to individually as a "Party" and collectively as the "Parties".

WITNESSETH:

WHEREAS, Parent is an indirect owner of 75% of the outstanding interests in the Subsidiaries;

WHEREAS, ADP CR3 holds Renewed Facility Operating License No. DPR-72 ("NRC License") to possess, maintain and decommission the Crystal River 3 Nuclear Generating Station ("CR-3 Facility") located in Citrus County, Florida, including the independent spent fuel storage installation on the CR-3 Facility site (the "ISFSI");

WHEREAS, ADP SF1 is the owner of the ISFSI and its associated equipment, and it holds title to the spent nuclear fuel, high level waste, and greater than Class C waste stored or to be stored in the ISFSI; and

WHEREAS, Parent and the Subsidiaries desire to take certain actions to assure the Subsidiaries' ability to pay the expenses of: (i) maintaining and decommissioning the CR-3 Facility and ISFSI safely; (ii) protecting the public health and safety; and (iii) meeting Nuclear Regulatory Commission ("NRC") requirements until the NRC License is terminated and site restoration under state-law requirements is complete (collectively, the "Decommissioning Costs").

NOW, THEREFORE, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. *Availability of Funding; Use of Proceeds.* From time to time, upon request of the Subsidiaries, Parent shall provide or cause to be provided to the Subsidiaries such

funds as the Subsidiaries determines to be necessary to pay the Decommissioning Costs; provided, however, in any event the aggregate amount which Parent is obligated to provide under this Agreement shall not exceed \$105 million.

2. *No Guarantee to Third Parties.* Without limiting the obligation set forth in paragraph 1, this Support Agreement is not, and nothing herein contained, and no action taken pursuant hereto by Parent shall be construed as, or deemed to constitute, a direct or indirect guarantee by Parent to any third party (other than the NRC) of the payment of the Decommissioning Costs or of any liability or obligation of any kind or character whatsoever of the Subsidiaries. This Agreement may, however, be relied upon by the NRC as a parental guarantee in determining the financial qualifications of the Subsidiaries to hold the NRC License, including funding the costs associated with the spent fuel management program and the completion of decommissioning.
3. *Waivers.* Parent hereby waives any failure or delay on the part of the Subsidiaries in asserting or enforcing any of its rights or in making any claims or demands hereunder.
4. *Amendments and Termination.* This Agreement may not be amended or modified at any time without 30 days' prior written notice to the NRC. This Agreement shall terminate at such time as the Parent or any affiliate is no longer a direct or indirect owner of any of the shares or other ownership interests in the Subsidiaries. This Agreement shall also terminate with respect to the Decommissioning Costs at such time as the NRC License is terminated for all areas of the CR-3 Facility site.
5. *Successors.* This Agreement shall be binding upon the Parties hereto and their respective successors and assigns.
6. *Third Parties.* Except as expressly provided in Sections 2 and 4 with respect to the NRC, this Agreement is not intended for the benefit of any person other than the Parties hereto, and shall not confer or be deemed to confer upon any other such person any benefits, rights, or remedies hereunder.
7. *Governing Law.* This Agreement shall be governed by the laws of the State of Delaware.
8. *Subsidiaries Covenants.* The Subsidiaries shall take no action to: (a) cause Parent, or its successors and assigns, to void, cancel or otherwise modify the \$105 million support commitment hereunder; (b) cause Parent to fail to perform its commitments hereunder; or (c) impair Parent's performance hereunder, or remove or interfere with the Subsidiaries' ability to draw upon Parent's commitment, in each case, without the prior written consent of the NRC's Director of the Office of Nuclear Material Safety and Safeguards. Further, the Subsidiaries shall inform the NRC in writing any time that either of the Subsidiaries draws upon the \$105 million commitment.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed and delivered by their respective officers thereunto duly authorized as of the day and year first above written.

NORTHSTAR GROUP SERVICES, INC.

By: _____

Name: _____

Title: _____

ADP CR3, LLC

By: _____

Name: _____

Title: _____

ADP SF1, LLC

By: _____

Name: _____

Title: _____

EXHIBIT H-2
FORM OF SUPPORT AGREEMENT
BETWEEN
ORANO USA LLC
AND
ADP CR3, LLC AND ADP SF1, LLC

This Support Agreement (this “Agreement”), dated as of _____, 2019, is made by and between Orano USA LLC, a Delaware limited liability company (“Parent”), and ADP CR3, LLC, a Delaware limited liability company (“ADP CR3”), and ADP SF1, LLC, a Delaware limited liability company (“ADP SF1,” and together with ADP CR3, the “Subsidiaries”). Parent and Subsidiaries are referred to individually as a “Party” and collectively as the “Parties”.

WITNESSETH:

WHEREAS, Parent is an indirect owner of 25% of the outstanding interests in the Subsidiaries;

WHEREAS, ADP CR3 holds Renewed Facility Operating License No. DPR-72 (“NRC License”) to possess, maintain and decommission the Crystal River 3 Nuclear Generating Station (“CR-3 Facility”) located in Citrus County, Florida, including the independent spent fuel storage installation on the CR-3 Facility site (the “ISFSI”);

WHEREAS, ADP SF1 is the owner of the ISFSI and its associated equipment, and it holds title to the spent nuclear fuel, high level waste, and greater than Class C waste stored or to be stored at the ISFSI; and

WHEREAS, Parent and the Subsidiaries desire to take certain actions to assure the Subsidiaries’ ability to pay the expenses of: (i) maintaining and decommissioning the CR-3 Facility and ISFSI safely; (ii) protecting the public health and safety; and (iii) meeting Nuclear Regulatory Commission (“NRC”) requirements until the NRC License is terminated and site restoration under state-law requirements is complete (collectively, the “Decommissioning Costs”).

NOW, THEREFORE, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. *Availability of Funding; Use of Proceeds.* From time to time, upon request of the Subsidiaries, Parent shall provide or cause to be provided to the Subsidiaries such funds as the Subsidiaries determines to be necessary to pay the Decommissioning Costs; provided, however, in any event the aggregate amount which Parent is obligated to provide under this Agreement shall not exceed \$35 million.
2. *No Guarantee to Third Parties.* Without limiting the obligation set forth in paragraph 1, this Support Agreement is not, and nothing herein contained, and no action taken pursuant hereto by Parent shall be construed as, or deemed to constitute, a direct or indirect guarantee by Parent to any third party (other than the NRC) of the payment of the Decommissioning Costs or of any liability or obligation of any kind or character whatsoever of the Subsidiaries. This Agreement may, however, be relied upon by the NRC as a parental guarantee in determining the financial qualifications of the Subsidiaries to hold the NRC License, including funding the costs associated with the spent fuel management program and the completion of decommissioning.
3. *Waivers.* Parent hereby waives any failure or delay on the part of the Subsidiaries in asserting or enforcing any of its rights or in making any claims or demands hereunder.
4. *Amendments and Termination.* This Agreement may not be amended or modified at any time without 30 days' prior written notice to the NRC. This Agreement shall terminate at such time as the Parent or any affiliate is no longer a direct or indirect owner of any of the shares or other ownership interests in the Subsidiaries. This Agreement shall also terminate with respect to the Decommissioning Costs at such time as the NRC License is terminated for all areas of the CR-3 Facility site.
5. *Successors.* This Agreement shall be binding upon the Parties hereto and their respective successors and assigns.
6. *Third Parties.* Except as expressly provided in Sections 2 and 4 with respect to the NRC, this Agreement is not intended for the benefit of any person other than the Parties hereto, and shall not confer or be deemed to confer upon any other such person any benefits, rights, or remedies hereunder.
7. *Governing Law.* This Agreement shall be governed by the laws of the State of Delaware.
8. *Subsidiaries Covenants.* The Subsidiaries shall take no action to: (a) cause Parent, or its successors and assigns, to void, cancel or otherwise modify the \$35 million support commitment hereunder; (b) cause Parent to fail to perform its commitments hereunder; or (c) impair Parent's performance hereunder, or remove or interfere with the Subsidiaries' ability to draw upon Parent's commitment, in each case, without the prior written consent of the NRC's Director of the Office of Nuclear Material Safety and Safeguards. Further, the Subsidiaries shall inform the NRC in writing any time that either of the Subsidiaries draws upon the \$35 million commitment.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed and delivered by their respective officers thereunto duly authorized as of the day and year first above written.

ORANO USA LLC

By: _____

Name: _____

Title: _____

ADP CR3, LLC

By: _____

Name: _____

Title: _____

ADP SF1, LLC

By: _____

Name: _____

Title: _____

**Exhibit No. __ (TH-1) to the
Direct Testimony of Terry Hobbs**

Pages 233-238 of 597:

Exhibit I

**REDACTED IN
ENTIRETY**

**Exhibit No. __ (TH-1) to the
Direct Testimony of Terry Hobbs**

Pages 239-240 of 597:

Attachment 1 to Exhibit I

**REDACTED IN
ENTIRETY**

EXHIBIT J

FORM OF ASSIGNMENT AND ASSUMPTION AGREEMENT

ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT (this “Agreement”), dated as of [●], is made and entered into by and between DUKE ENERGY FLORIDA, LLC, a Florida limited liability company (“Seller”), and ADP SF1, LLC, a Delaware limited liability company (“Buyer” and, together with Seller, the “Parties” and each, a “Party”), pursuant to the Spent Nuclear Fuel Purchase and Sale Agreement dated as of [●] (as amended, supplemented, or otherwise modified from time to time, the “SNF PSA”), by and between Seller and Buyer. Unless otherwise defined herein, capitalized terms used in this Agreement shall have the meanings ascribed to such terms in the SNF PSA or the Decommissioning Services Agreement dated as of [●], 2019 (the “Decommissioning Agreement”) by and among Seller as Company, Buyer, and ADP CR3, LLC, a Delaware limited liability company, as Contractor.

WHEREAS, pursuant to the SNF PSA, Seller and Buyer have agreed to enter into this Agreement pursuant to which Seller has agreed to assign certain Assets to Buyer, and Buyer has agreed to assume certain obligations of Seller, all as more fully described in the SNF PSA.

WHEREAS, this Agreement is entered into and delivered in connection with the consummation of the transactions contemplated under the SNF PSA.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, Seller and Buyer agree as follows:

1. Assignment and Assumption. Subject to the terms and conditions of the SNF PSA, Seller hereby irrevocably sells, assigns, transfers, conveys and delivers to Buyer all of Seller’s right, title and interest in and to the Assets, free and clear of Encumbrances other than Permitted Encumbrances, and the Assumed Liabilities, and Buyer hereby accepts such Assets and assumes and agrees to pay, perform and discharge the Assumed Liabilities, and Buyer shall not acquire any of the Excluded Assets or assume or otherwise become obligated for an Excluded Liability.

2. Excluded Assets and Excluded Liabilities Not Assigned. Notwithstanding anything to the contrary in this Agreement, in accordance with the SNF PSA, the Assets do not include any of the Excluded Assets, and the Assumed Liabilities do not include any of the Excluded Liabilities, Buyer is not acquiring from Seller any of the Excluded Assets or becoming obligated for any of the Excluded Liabilities, and Seller retains all of its rights, title and interest in and to the Excluded Assets and all obligations with respect to the Excluded Liabilities.

3. Terms of the SNF PSA. This Agreement is executed and delivered pursuant to the SNF PSA. The scope, nature, and extent of the Assets are expressly set forth in the SNF PSA. Nothing contained herein will itself change, amend, extend, or alter (nor should it be

deemed or construed as changing, amending, extending, or altering) the terms or conditions of the SNF PSA in any manner whatsoever. This Agreement does not create or establish rights, impose any liabilities or obligations not otherwise created or existing under or pursuant to the SNF PSA, or limit any of the rights or remedies available to Seller or Buyer under the SNF PSA. The Parties hereto acknowledge and agree that the representations, warranties, covenants, agreements, and indemnities contained in the SNF PSA will not be superseded hereby, but will remain in full force and effect to the fullest extent provided therein. In the event of a conflict between the terms and conditions of this Agreement and the terms and conditions of the SNF PSA, the terms and conditions of the SNF PSA shall govern and prevail.

4. Assignment. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns. Buyer shall not, including by operation of law, assign this Agreement or any of its rights, interests or obligations hereunder to any other Person, without the prior written consent of Seller in its sole discretion; provided, that Seller's consent to Buyer's assignment of this Agreement or any of Buyer's rights, interests or obligations hereunder to an Affiliate of Buyer that has also been assigned and has assumed Buyer's obligations under the SNF PSA and the Decommissioning Agreement, shall not be unreasonably withheld. Any assignment in contravention of the foregoing sentence shall be null and void and without legal effect on the rights and obligations of the Parties.

5. No Third Party Beneficiaries. This Agreement is for the sole benefit of the Parties hereto and their respective permitted successors and assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

6. Amendments. This Agreement may be amended, modified or supplemented only by written agreement of Seller and Buyer.

7. Severability. Any term or provision of this Agreement that is held invalid or unenforceable in any situation shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation; provided, however, that the remaining terms and provisions of this Agreement may be enforced only to the extent that such enforcement in the absence of any invalid terms and provisions would not result in (a) deprivation of a Party of a material aspect of its original bargain upon execution of the Decommissioning Agreement, the SNF PSA or any of the Ancillary Agreements to which such Party is a party; (b) the unjust enrichment of a Party; or (c) any other manifestly unfair or inequitable result.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the Laws of the State of Florida (without giving effect to conflict of law principles) as to all matters, including matters of validity, construction, effect, performance and remedies.

9. Dispute Resolution. All disputes under or arising out of this Agreement, and the resolution of all such disputes, shall be made in accordance with the dispute resolution

provisions set forth in Section 16.7 of the Decommissioning Agreement, which provisions are incorporated herein *mutatis mutandis*.

10. Counterparts. This Agreement may be executed in two or more counterparts and by facsimile or electronic delivery, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized officers as of the date first written above.

SELLER:

DUKE ENERGY FLORIDA, LLC

By: _____
Name: _____
Title: _____

BUYER:

ADP SF1, LLC

By: _____
Name: _____
Title: _____

EXHIBIT K

FORM OF BILL OF SALE

BILL OF SALE

THIS BILL OF SALE ("Bill of Sale") is made as of [●], by and between DUKE ENERGY FLORIDA, LLC, a Florida limited liability company ("Seller"), and ADP SF1, LLC, a Delaware limited liability company ("Buyer" and, together with the Seller, the "Parties" and each, a "Party"), pursuant to the Spent Nuclear Fuel Purchase and Sale Agreement dated as of [●] (as amended, supplemented, or otherwise modified from time to time, the "SNF PSA"), by and between Seller and Buyer. Unless otherwise defined herein, capitalized terms used in this Bill of Sale shall have the meanings ascribed to such terms in the SNF PSA or the Decommissioning Services Agreement dated as of [●], 2019 (the "Decommissioning Agreement") by and among Seller as Company, Buyer, and ADP CR3, LLC, a Delaware limited liability company, as Contractor.

WHEREAS, pursuant to the SNF PSA, Seller has agreed to sell, assign, convey, transfer and deliver all of its rights, title and interests in the Assets to Buyer, and Buyer has agreed to acquire the Assets from Seller, all as more fully described in the SNF PSA.

WHEREAS, this Bill of Sale is made and delivered in connection with the consummation of the transactions contemplated under the SNF PSA.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual promises and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, Seller and Buyer agree as follows:

1. Conveyance. Subject to the terms and conditions of the SNF PSA, Seller hereby irrevocably sells, assigns, conveys, transfers, and delivers to Buyer, and its successors and assigns, and Buyer hereby accepts from Seller, all of Seller's right, title, and interest in and to the Assets, other than the Assets conveyed by the Assignment and Assumption Agreement, free and clear of Encumbrances other than Permitted Encumbrances.

2. Excluded Assets Not Conveyed. Notwithstanding anything to the contrary in this Bill of Sale, in accordance with the SNF PSA, the Assets do not include, and Buyer is not acquiring from Seller, any of the Excluded Assets, and Seller retains all of its rights, title and interest in and to the Excluded Assets. Nothing expressed or implied in this Bill of Sale shall be deemed to be an assumption by Buyer of any Excluded Liabilities.

3. Additional Instruments. Seller agrees that it shall promptly deliver to Buyer such additional bills of sale, endorsements, consents, assignments or other instruments of conveyance and transfer as the Parties deem reasonably necessary or appropriate to sell, transfer, assign, and convey to Buyer all of Seller's right, title and interest in and to the Assets or carry out more effectively the transfer of the Assets provided for herein.

4. Terms of the SNF PSA. This Bill of Sale is executed and delivered pursuant to the SNF PSA. The scope, nature, and extent of the Assets are expressly set forth in the SNF PSA. Nothing contained herein will itself change, amend, extend, or alter (nor should it be deemed or construed as changing, amending, extending, or altering) the terms or conditions of the SNF PSA in any manner whatsoever. This Bill of Sale does not create or establish rights, impose any liabilities or obligations not otherwise created or existing under or pursuant to the SNF PSA, or limit any of the rights or remedies available to Seller or Buyer under the SNF PSA. The Parties hereto acknowledge and agree that the representations, warranties, covenants, agreements, and indemnities contained in the SNF PSA will not be superseded hereby, but will remain in full force and effect to the fullest extent provided therein. In the event of a conflict between the terms and conditions of this Bill of Sale and the terms and conditions of the SNF PSA, the terms and conditions of the SNF PSA shall govern and prevail.

5. Assignment. This Bill of Sale and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns. Buyer shall not, including by operation of law, assign this Bill of Sale or any of its rights, interests or obligations hereunder to any other Person, without the prior written consent of Seller in its sole discretion; provided, that Seller's consent to Buyer's assignment of this Bill of Sale or any of Buyer's rights, interests or obligations hereunder to an Affiliate of Buyer that has also been assigned and has assumed Buyer's obligations under the SNF PSA and the Decommissioning Agreement, shall not be unreasonably withheld. Any assignment in contravention of the foregoing sentence shall be null and void and without legal effect on the rights and obligations of the Parties.

6. No Third Party Beneficiaries. This Bill of Sale is for the sole benefit of the Parties hereto and their respective permitted successors and assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Bill of Sale.

7. Amendments. This Bill of Sale may be amended, modified or supplemented only by written agreement of Seller and Buyer.

8. Severability. Any term or provision of this Bill of Sale that is held invalid or unenforceable in any situation shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation; provided, however, that the remaining terms and provisions of this Bill of Sale may be enforced only to the extent that such enforcement in the absence of any invalid terms and provisions would not result in (a) deprivation of a Party of a material aspect of its original bargain upon execution of the Decommissioning Agreement. the SNF PSA or any of the Ancillary Agreements to which such Party is a party; (b) the unjust enrichment of a Party; or (c) any other manifestly unfair or inequitable result.

9. Governing Law. This Bill of Sale shall be governed by and construed in accordance with the Laws of the State of Florida (without giving effect to conflict of law principles) as to all matters, including matters of validity, construction, effect, performance and remedies.

10. Dispute Resolution. All disputes under or arising out of this Bill of Sale, and the resolution of all such disputes, shall be made in accordance with the dispute resolution provisions set forth in Section 16.7 of the Decommissioning Agreement, which provisions are incorporated herein *mutatis mutandis*.

11. Counterparts. This Bill of Sale may be executed in two or more counterparts and by facsimile or electronic delivery, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the Parties have caused this Bill of Sale to be signed by their respective duly authorized officers as of the date first written above.

SELLER:

DUKE ENERGY FLORIDA, LLC

By: _____
Name: _____
Title: _____

BUYER:

ADP SF1, LLC

By: _____
Name: _____
Title: _____

EXHIBIT L

FORM OF NON-CONSOLIDATION OPINION

{see attached}

[_____, 20__]

Duke Energy Florida, LLC
229 First Avenue North
St. Petersburg, FL 33701

Pillsbury Draft of May 28, 2019:
Subject to Ongoing Review by Deal Team, Completion of Due Diligence, Review of Ancillary Agreements, and Opinion Committee Approval. Final Approval and Delivery is Dependent on the Absence of Changes in Applicable Law, the Underlying Transaction Documents, and the Structure of the Transaction.

Re: Substantive Non-Consolidation Opinion – ADP CR3, LLC

Ladies and Gentlemen:

We have acted as counsel to ADP CR3, LLC, a Delaware limited liability company (“**Contractor**”), in connection with the decommissioning of the Crystal River 3 Nuclear Generating Station (“**CR-3 Facility**”) located in Citrus County, Florida, pursuant to that certain Decommissioning Services Agreement (“**Decommissioning Agreement**”)¹ between Contractor, Duke Energy Florida, LLC (“**Duke**”), and ADP SF1, LLC (“**Buyer**”) dated as of May [__], 2019.

Pursuant to the Decommissioning Agreement, Duke is engaging Contractor to decommission² the CR-3 Facility and the NRC-Licensed Site and transferring certain associated liabilities to Contractor in connection therewith. We understand that Duke is selling and assigning to Buyer the Spent Nuclear Fuel and certain other assets located at the CR-3 Facility pursuant to a Spent Nuclear Fuel Purchase and Sale Agreement³ (the “**Spent Nuclear Fuel Agreement**”). Pursuant to an SNF Services Agreement between Contractor and Buyer (the “**Services Agreement**”), Contractor has agreed to perform certain services for Buyer in connection with the Spent Nuclear Fuel and the other assets Buyer is purchasing from Duke pursuant to the Spent Nuclear Fuel Agreement. We understand that the Services Agreement reflects arm’s-length terms and fair compensation to Contractor for its services.

¹ Capitalized terms used but not defined in this opinion have the meanings given such terms in the Decommissioning Agreement.

² Pursuant to the Decommissioning Agreement, “Decommission” means “(a) the dismantlement and removal of the structures, and any reduction or removal of radioactivity, at the CR-3 Facility and the NRC-Licensed Site to a level that permits the release of all or any specified portion of the NRC-Licensed Site consistent with the radiological criteria for license termination specified by the NRC in 10 C.F.R. § 20.1402 for unrestricted use; (b) all other activities necessary for the retirement, dismantlement, decontamination or storage of the CR-3 Facility and NRC-Licensed Site in compliance with all applicable Nuclear Laws and Environmental Laws, including the applicable requirements of the Atomic Energy Act and the NRC’s rules, regulations, orders and pronouncements thereunder; (c) operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, the packaging of the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site; (d) restoration of the NRC-Licensed Site in accordance with applicable Laws; and (e) any planning and administration activities incidental thereto.”

³ Note to Draft: This will need to be updated to include purchase of the ISFSI.

Pursuant to two Parent Guaranties (the “**Guaranties**”), NorthStar Group Services Inc. (“**NorthStar**”) and Orano USA LLC are severally guaranteeing the full payment and performance of all of Contractor’s and Buyer’s obligations under the Decommissioning Agreement and the Spent Nuclear Fuel Agreement and certain ancillary agreements executed in connection therewith. We also understand that pursuant to a Pledge Agreement (“**Pledge Agreement**”), Accelerated Decommissioning Partners, LLC (“**ADP**”) is pledging its equity interest in Contractor to Duke as collateral for Contractor’s obligations under the Decommissioning Agreement.

This letter is being delivered to you at Contractor’s request pursuant to section 4.3.14 of the Decommissioning Agreement. In this opinion, Buyer and ADP are each referred to as an “**Other Entity**” and collectively are referred to as “**Other Entities.**” A chart of Contractor and the Other Entities’ ownership structure is attached as **Exhibit 1.**

In connection with the foregoing transaction, we have been asked to opine whether, if any one or more of the Other Entities were to become a debtor in a case under title 11 of the United States Code (the “**Bankruptcy Code**”)⁴ before Contractor achieves all of the End-State Conditions under the Decommissioning Agreement, a bankruptcy court would, on a contested basis, substantively consolidate Contractor’s assets and liabilities with those of any one or more of such Other Entities.

I. Factual Matters and Assumptions

In connection with this opinion we have reviewed, among other things, originals or copies certified or otherwise identified to our satisfaction of the following documents each dated as of the date hereof unless otherwise noted below (collectively, the “**Documents**”):

1. Decommissioning Agreement dated as of May [], 2019;
2. Spent Nuclear Fuel Agreement;
3. Services Agreement;
4. Pledge Agreement;
5. Amended and Restated Limited Liability Company Agreement of Contractor dated as of the date hereof (“**Contractor’s Operating Agreement**”);
6. Limited Liability Company Agreement of Buyer dated as of March 27, 2019; and
7. Limited Liability Company Agreement of ADP dated as of February 7, 2017.

We have also examined and relied upon such other documents and such other corporate records, certificates and statements of corporate officers and other representatives of Contractor and the Other Entities as we have deemed necessary or appropriate for the purposes of this opinion.

⁴ 11 U.S.C. §§ 101–1532 (2017).

Whenever we qualify a statement in this letter with the words “to our knowledge,” “known to us” or similar wording, it indicates that in the course of our representation of our client in connection with the Decommissioning Agreement and this opinion letter, no information that would give us current actual knowledge of the inaccuracy of such statement has come to the attention of the lawyers in this firm who have rendered legal services in connection with the Decommissioning Agreement and this opinion letter. We have not made any independent investigation to determine the accuracy of any such statement, except as expressly described herein, and any limited inquiry undertaken by us during the preparation of this letter should not be regarded as such an investigation. No inference as to our knowledge of any matters bearing on the accuracy of such statement should be drawn from our representation of our client in other matters in which such lawyers are not involved.

As to certain facts material to this opinion, we have relied on the representations and warranties of the various parties thereto contained in the Documents and on the factual representations of the officers of Contractor and the Other Entities in the Officer’s Certificates attached as **Exhibits 2–4 (“Officer’s Certificates”)** and in other writings. We have also assumed without independent inquiry and without conducting any due diligence that the facts and factual assumptions in the Documents and in the Officer’s Certificates (including the facts contained in the representations and warranties and factual representations referred to in the preceding sentence), are now and will at all relevant times remain true and correct.

We also have assumed (i) the authenticity of original certificates, agreements, documents, records and other materials submitted to us; (ii) the conformity with the originals of any copies submitted to us; (iii) that each Document constitutes the valid, legally binding and enforceable agreement of the parties thereto under all applicable law; (iv) that any consents by third parties needed or desirable for the entering into or performance of the obligations created by the Documents have been or will timely be obtained; and (v) that there are no agreements, understandings or negotiations between the parties not set forth in the Documents that would modify the terms thereof or the rights and obligations of the parties thereunder.

In addition, we assume without independent inquiry and without conducting any due diligence, that the following facts and assumptions are now and will at all relevant times remain true and correct:

Facts Concerning the Operation of Contractor

1. As depicted on the chart attached as Exhibit 1, Contractor and Buyer are wholly owned by ADP, and ADP is owned 75% and 25% by NorthStar and Orano Decommissioning Holdings LLC, respectively.
2. Contractor is duly organized, validly existing and in good standing as a limited liability company under the laws of the State of Delaware.
3. Pursuant to section 2.3 of Contractor’s Operating Agreement, Contractor only has the power and authority to enter into the Decommissioning Agreement and the Ancillary Agreements to decommission the CR-3 Facility and the NRC-Licensed

Site, and to otherwise perform all of Contractor's obligations under the Decommissioning Agreement and other matters reasonably related thereto.

4. Contractor has not engaged and will not engage in any business activities except those contemplated by section 2.3 of Contractor's Operating Agreement.
5. Contractor has not owned, does not own, and will not own any asset or property other than assets related to decommissioning of the CR-3 Facility and the NRC-Licensed Site.
6. Contractor is solvent and adequately capitalized in light of its expected business operations, and Contractor intends to remain solvent and adequately capitalized in the future. Notwithstanding anything else in this opinion, we do not assume that Contractor will remain solvent or adequately capitalized or not become a debtor in a case under the Bankruptcy Code.
7. Pursuant to section 3.16 of the Decommissioning Agreement and section 6.4 of Contractor's Operating Agreement,⁵ Contractor will have one independent manager (who will be designated by Duke and appointed by ADP) until the date on which Contractor has achieved all of the End-State Conditions.
8. At all times, and without limiting the other assumptions made herein about Contractor, Contractor has complied and will continue to comply with the "Special Purpose Bankruptcy Remote Entity" provisions of section 9 of Contractor's Operating Agreement.
9. Contractor has maintained and will continue to maintain separate financial statements showing that its assets and liabilities are separate and apart from those of any Other Entity or affiliate. If Contractor's assets are included in the consolidated financial statements of any of the Other Entities or any other affiliate, then (i) an appropriate notation will be made on such consolidated financial statements to indicate the separateness of Contractor and any such Other Entity or affiliate and to indicate that Contractor's assets and credit are not available to satisfy the debts and other obligations of any such Other Entity, affiliate or any other person, and (ii) such assets shall be listed on Contractor's own separate balance sheet.

Assumptions Regarding the Other Entities

10. None of the Other Entities has paid or will pay Contractor's liabilities from its own funds, including operating expenses or the salaries of any Contractor employee.

⁵ We express no opinion as to the validity or enforceability of such provisions.

11. Except as may be required of the Buyer under the Pledge Agreement, none of the Other Entities has held nor will hold its credit out as available to pay Contractor's debts, and the Other Entities have not paid and will not pay Contractor's debts.
12. The Other Entities' books and records have been maintained and will continue to be maintained separate and apart from those of Contractor although they are kept in the same geographic location.
13. Subject to paragraph 9 above, the Other Entities' financial statements have been and will continue to be maintained separate and apart from those of Contractor.
14. The Other Entities have strictly observed, and will continue to strictly observe, organizational formalities in their dealings with Contractor, and Contractor's funds or other assets have not been and will not be commingled with those of any of the Other Entities.
15. Each of the Other Entities has maintained and will continue to maintain arm's-length relationships with Contractor.
16. Except for the Pledge Agreement and pursuant to its terms, none of the Other Entities has held or will hold itself out to be responsible for Contractor's debts or the decisions or actions in respect of Contractor's daily business and affairs.
17. The Other Entities have not conducted and will not conduct their own respective businesses in Contractor's name.
18. The Other Entities have maintained and used, and will continue to maintain and use, separate stationery, invoices and checks that are different and separately identifiable from those of Contractor.
19. The Services Agreement reflects arm's-length terms and fair compensation to Contractor for its services.
20. ADP shall account on its books and records for any capital contribution made by ADP to Contractor solely as an increase in the stated capital of ADP in Contractor. If ADP contributes capital to Contractor, then ADP and Contractor shall strictly observe corporate formalities in making such contributions.

Additional Assumptions

21. The terms of Contractor's Operating Agreement material to Contractor's separateness from the Other Entities are legal, valid and binding obligations of each party thereto, enforceable against each such party thereto in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy or insolvency law or principles of equity.

22. Duke has relied on Contractor's separateness in entering into the Decommissioning Agreement, and in consummating the transactions contemplated by the Documents.
23. Each of the Contractor and the Other Entities has performed and will perform and has complied and will comply in all material respects with all material provisions, covenants, representations, warranties and other promises required to be performed or complied with by it under the Documents.
24. Duke would suffer prejudice from, or would be harmed by, the substantive consolidation of Contractor's assets and liabilities with the assets and liabilities one or more of the Other Entities.
25. To the extent that the accuracy of any factual assumption we make regarding Contractor's separateness described in this opinion would require participation by both Contractor and any of the Other Entities, we assume that each of the Other Entities will conduct itself and its business in accordance with any such factual assumption.
26. Contractor and the Other Entities have not engaged and will not engage in fraudulent activity with respect to the transactions described in this opinion.

We assume that the Documents will not be amended, supplemented or modified in any way material to this opinion, whether in writing, orally, by waiver or by course of performance. In addition, we assume that there are no agreements, arrangements or understandings, written or oral, material to the opinions set forth herein concerning Contractor or the Other Entities other than as expressly provided for in the Documents and there are no other changes in, and there are no facts inconsistent with, the facts and assumptions described above as in effect on the date hereof.

In making our assumptions, we have relied in part on the statements contained in the Officer's Certificates to the extent the certifications therein are material to Contractor's separateness from the Other Entities.

II. Certain Matters Regarding Substantive Consolidation

You have requested our opinion, subject to the qualifications and assumptions set forth herein, as to whether, if any one or more of the Other Entities were to become a debtor in a case under the Bankruptcy Code before Contractor achieves all of the End-State Conditions under the Decommissioning Agreement, a bankruptcy court would, on a contested basis, substantively consolidate Contractor's assets and liabilities with those of any one or more of such Other Entities.

Substantive consolidation is a judicially created doctrine arising from the general equity powers granted to bankruptcy courts. *See Alexander v. Compton (In re Bonham)*, 229 F.3d 750, 763-64 (9th Cir. 2000); *In re Adelpia Commc'ns Corp.*, 361 B.R. 337, 359 (S.D.N.Y. 2007). Under the doctrine of substantive consolidation, in certain circumstances a bankruptcy court may consolidate the assets and liabilities of different entities by merging the assets and liabilities of the entities and treating the entities as a consolidated entity for purposes of the bankruptcy cases. *See F.D.I.C. v. Colonial Realty Co.*, 966 F.2d 57, 59 (2d Cir. 1992); *In re Lisanti Foods Inc.*, 241 Fed.

App'x 1, 1 (3d Cir. 2007); *In re The Babcock and Wilcox Co.*, 250 F.3d 955, 958 n. 5 (5th Cir. 2001); *Eastgroup Props. v. S. Motel Assoc., Ltd.*, 935 F.2d 245, 248 (11th Cir. 1991). The bankruptcy court's power to substantively consolidate is exercised pursuant to section 105(a) of the Bankruptcy Code, which provides in pertinent part that "[t]he court may issue any order, process, or judgment that is necessary or appropriate to carry out the provisions of this title." 11 U.S.C. § 105(a).

Courts have recognized that substantive consolidation is a remedy that is to be "used sparingly because of the possibility of unfair treatment of creditors of a corporate debtor who have dealt solely with that debtor without knowledge of its interrelationship with others." *Chem. Bank N.Y. Trust Co. v. Kheel*, 369 F.2d 845, 847 (2d Cir. 1966); *see also In re Pac. Lumber Co.*, 584 F.3d 229, 249 (5th Cir. 2009); *Eastgroup Props.*, 935 F.2d at 248; *F.D.I.C. v. Hogan (In re Gulfco Inv. Corp.)*, 593 F.2d 921, 928 (10th Cir. 1979); *Bonham*, 229 F.3d at 767. Mere corporate affiliation will not support jurisdiction over property of a debtor's affiliates and subsidiaries. *See, e.g., In re Res. Energy Techs., LLC*, 419 B.R. 746, 748 (Bankr. W.D. Ky. 2009); *In re Calvert*, 135 B.R. 398, 401–02 (Bankr. S.D. Cal. 1991); *In re Calhoun*, 312 B.R. 380, 384 (Bankr. N.D. Iowa 2004); *In re Wm. Gluckin Co.*, 457 F. Supp. 379, 383 (S.D.N.Y. 1978). And unlike the common law doctrine known as "piercing the corporate veil," a bankruptcy court need not find fraudulent intent or misconduct before applying the doctrine of substantive consolidation. *See Official Comm. Of Unsecured Creditors of Verestar, Inc. v. Am. Tower Corp. (In re Verestar, Inc.)*, 343 B.R. 444, 464 (Bankr. S.D.N.Y. 2006).

Given that the power to order substantive consolidation derives from the equity jurisdiction of bankruptcy courts, the issue is determined on a case-by-case basis, and the decisions reflect the courts' analyses of the particular facts presented. *See F.D.I.C. v. Colonial Realty Co.*, 966 F.2d at 61; *see also In re Introgen Therapeutics, Inc.*, 429 B.R. 570, 582 (Bankr. W.D. Tex. 2010) ("There is no universally accepted standard for substantive consolidation and it has been said to be a highly fact-specific analysis made on a case-by-case basis"). A court's inquiry requires an examination, *inter alia*, of the organizational structures of the entities proposed to be consolidated, their relationships with each other and their relationships with their respective creditors and other third parties. Because the doctrine of substantive consolidation is an equitable one, the court will also examine the impact upon the creditors of each entity if consolidation were to be ordered and whether such parties would be unfairly prejudiced, or treated more equitably, by substantive consolidation. *See Union Savs. Bank v. Augie/Restivo Baking Co. (In re Augie/Restivo Baking Co.)*, 860 F.2d at 515, 518 (2d Cir. 1988). If necessary, the court can order relief in a way that eliminates adverse effects to objecting creditors. For example, the court in Republic Airways Holdings bankruptcy case authorized substantive consolidation over the objection of a creditor that had leased several aircraft to certain debtors and had obtained a guaranty from another affiliated debtor. *See In re Republic Airways Holdings Inc.*, 565 B.R. 710 (Bankr. S.D.N.Y. 2017), *aff'd*, 2018 U.S. Dist. LEXIS 52148 (S.D.N.Y.). In authorizing substantive consolidation, the court tailored the remedy in a way that allowed the lessor to be excepted from the effect of substantive consolidation and be treated as if substantive consolidation had not occurred. *See id.* at 729 ("In rejecting Residco's position on the Carve-Out, the Court follows the lead of courts that have recognized that substantive consolidation can be tailored to fit the circumstances of the case and ensure that a claimant receives the recovery to which it is entitled.").

The principal factual circumstances on which courts have based decisions in favor of substantive consolidation can be grouped into three categories: (i) if creditors of affiliates have dealt with such affiliates as a unit in extending credit;⁶ (ii) if the affairs of the affiliated entities are so entangled that it would be costly and time-consuming to deal with them separately;⁷ and (iii) if the separate legal identities of the affiliates have not been preserved and one or more entities are “mere instrumentalities” or “alter egos” of one another.⁸

In determining whether to order substantive consolidation, bankruptcy courts have traditionally considered certain objective factors, including:

1. the difficulty of segregating and ascertaining the assets and liabilities of the separate business entities;
2. the presence of consolidated financial statements and of separate, complete and accurate books and records;
3. the profitability of consolidation at a single physical location;
4. the commingling of assets and business functions, including the maintenance of separate bank accounts;
5. the unity of interests and ownership between the various corporate entities;
6. the existence of parent and intercorporate guaranties on loans; and
7. the transfer of assets without formal observance of corporate formalities.

See *In re Vecco Constr. Indus., Inc.*, 4 B.R. 407, 410 (Bankr. E.D. Va. 1980); accord *Eastgroup Props.*, 935 F.2d at 249; *Donut Queen*, 41 B.R. at 709; *In re Richton Int’l Corp.*, 12 B.R. 555, 558 (Bankr. S.D.N.Y. 1981).

Because decisions regarding substantive consolidation are made on a case-by-case basis by a court of equity, there is no certainty as to the factors on which a court will focus in a particular case. However, the reported cases decided to date suggest that the existence of some, or even most, of the factors listed above should not result in the automatic application of the substantive consolidation doctrine. See *White v. Creditors Serv. Corp. (In re Creditors Serv. Corp.)*, 195 B.R. 680, 690 (Bankr. S.D. Ohio 1996); *Eastgroup Props.*, 935 F.2d at 250; *In re Steury*, 94 B.R. 553,

⁶ See, e.g., *In re Cont’l Vending Mach. Corp.*, 517 F.2d 997, 1001 (2d Cir. 1975); *Colonial Realty Co.*, 966 F.2d at 61; *In re Jennifer Convertibles, Inc.*, 447 B.R. 713, 723 (Bankr. S.D.N.Y. 2011); *In re Raymond Prof’l Grp., Inc.*, 438 B.R. 130, 138 (Bankr. N.D. Ill. 2010), *aff’d*, 2011 WL 528551 (N.D. Ill. Feb. 8, 2011).

⁷ See, e.g., *Kheel*, 369 F.2d at 847; *In re Reider*, 31 F.3d 1102, 1108 (11th Cir. 1994); *In re Donut Queen, Ltd.*, 41 B.R. 706, 710 (Bankr. E.D.N.Y. 1984); *In re Murray Indus., Inc.*, 119 B.R. 820, 831 (Bankr. M.D. Fla. 1990); *In re The Lodge at Big Sky, LLC*, 454 B.R. 138, 142 (Bankr. D. Mont. 2011); *In re Wardle*, No. 01-21542, 2006 WL 6811026, at *5 (9th Cir. B.A.P. Jan. 31, 2006).

⁸ See, e.g., *In re Verestar*, 343 B.R. at 462; *In re Crabtree*, 39 B.R. 718, 721–22 (Bankr. E.D. Tenn. 1984); *Soviero v. Franklin Nat’l Bank of Long Island*, 328 F.2d 446, 448 (2d Cir. 1964); *Fish v. East*, 114 F.2d 177, 189 (10th Cir. 1940).

554 (Bankr. N.D. Ind. 1988); *Donut Queen*, 41 B.R. at 709–10; *In re Snider Bros., Inc.*, 18 B.R. 230, 234 (Bankr. D. Mass. 1982). Moreover, even where these factors are present to some extent, reported cases suggest that substantive consolidation should be ordered only when the benefits of substantive consolidation outweigh the prejudice to creditors that would result from consolidation. *See Donut Queen*, 41 B.R. at 709–10; *Drabkin v. Midland-Ross Corp. (In re Auto Train Corp., Inc.)*, 810 F.2d 270, 276 (D.C. Cir. 1987); *Bonham*, 229 F.3d at 766; *In re Lisanti Foods, Inc.*, No. 04-3868, 2006 WL 2927619, at *6 (D. N.J. Oct. 11, 2006); *In re Brentwood Golf Club, LLC*, 329 B.R. 802, 813–14 (Bankr. E.D. Mich. 2005). Thus, under this balancing test, the objective factors are just one element in the overall proof of the necessity or desirability of consolidation. *See Snider Bros.*, 18 B.R. at 234.

The burden of demonstrating that the factors favoring substantive consolidation are present is on the party requesting consolidation. *See In re Alico Mining, Inc.*, 278 B.R. 586, 589 (Bankr. M.D. Fla. 2002); *Steuery*, 94 B.R. at 554; *In re AHF Dev., Ltd.*, 462 B.R. 186, 198 (Bankr. N.D. Tex. 2011). The party must also show that substantial prejudice results from maintaining corporate separateness and that no injustice or frustration of a bankruptcy reorganization would occur as a result of consolidation. *In re F.A. Potts & Co., Inc.*, 23 B.R. 569, 572 (Bankr. E.D. Pa. 1982). Once the party requesting consolidation has made a prima facie case for substantive consolidation, an objecting creditor must establish that it has relied on “the separate credit of one of the entities to be consolidated” and will be prejudiced by substantive consolidation, giving it valid grounds to oppose consolidation. *Eastgroup Props.*, 935 F.2d at 249; *see also In re Pearlman*, 462 B.R. 849, 853 (Bankr. M.D. Fla. 2012).

A number of cases have enunciated a more flexible approach to substantive consolidation if the resulting consolidation would not prejudice the rights of creditors. This flexible approach has resulted from the increased recognition of interrelated corporate structures involving a parent corporation and its subsidiaries. *See, e.g., Vecco Constr.*, 4 B.R. at 409; *Richton Int’l Corp.*, 12 B.R. at 557; *Bonham*, 229 F.3d at 765. In applying this more flexible approach, courts do not ignore the importance of the relationship among the entities in question, but may be more inclined to find relationships sufficient to justify substantive consolidation if the benefits of doing so outweigh the harm. It is important to note, however, that the courts in these cases have emphasized the absence of any harm or prejudice to any particular group, or have concluded, after considering the equities, that any harm or prejudice is outweighed by the benefits of substantive consolidation. *See In re Bashas’ Inc.*, 437 B.R. 874, 929 (Bankr. D. Ariz. 2010); *Munford, Inc. v. TOC Retail, Inc. (In re Munford, Inc.)*, 115 B.R. 390, 395–96 (Bankr. N.D. Ga. 1990); *In re Murray Indus.*, 119 B.R. at 832; *In re Manzey Land & Cattle Co.*, 17 B.R. 332, 338 (Bankr. D.S.D. 1982); *In re F.A. Potts*, 23 B.R. at 572.

Substantive consolidation of multiple debtors in bankruptcy is widely accepted in the appropriate circumstances, and the substantive consolidation of a non-debtor with a debtor has become more accepted over the years. *See Logistics Info. Sys., Inc. v. Braunstein (In re Logistics Info. Sys. Inc.)*, 432 B.R. 1, 10 (D. Mass. 2010) (“Substantive consolidation of a non-debtor with a debtor . . . is less common but increasingly accepted.”); *see also Kapila v. S & G Fin. Servs., LLC (In re S & G Fin. Servs. of S. Fla., Inc.)*, 451 B.R. 573, 584–85 (Bankr. S.D. Fla. 2011) (concluding that court had authority to substantively consolidate a debtor with a non-debtor and that the trustee had met his burden of pleading a prima facie case for such consolidation). Several

courts have approved the substantive consolidation of debtors and non-debtors. *See In re Logistics*, 432 B.R. at 11–12; *Creditors Servs. Corp. v. Cooley (In re Creditors Servs. Corp.)*, 182 F.3d 916 (6th Cir. 1999); *Soviero*, 328 F.2d at 447–49; *In re Lahijani*, 2005 Bankr. LEXIS 1891 (Bankr. C.D. Cal. 2005).

Still, a number of cases have suggested that substantive consolidation of debtors in bankruptcy with non-debtors is appropriate, if at all, in “only extraordinary situations, notably when the debtor and non-debtor are alter egos of one another and/or have totally commingled their assets.” *See Morse Operations, Inc. v. Robins Le-COCQ, Inc. (In re Lease-A-Fleet, Inc.)*, 141 B.R. 869, 869 (Bankr. E.D. Pa. 1992). Some commentators have even suggested that consolidation of a solvent financing subsidiary or financing vehicle to benefit creditors of a debtor parent or other affiliate is not only unauthorized under the Bankruptcy Code, but also against public policy. *See* Patrick C. Sargent, *Bankruptcy Remote Finance Subsidiaries: The Substantive Consolidation Issue*, 44 BUS. LAW 1223, 1233–34 (1989); Baker Ostrin, *A Proposal to Limit the Availability of Substantive Consolidation of Solvent Entities with Bankrupt Affiliates*, 91 COM. L.J. 351, 358–59 (1986). “[S]ome courts have hesitated to consolidate a nondebtor with a debtor affiliate, reasoning that to do so would circumvent the procedures and protections of the requirements for commencing an involuntary bankruptcy case against the nondebtor entity.” 2 COLLIER ON BANKRUPTCY ¶ 105.09[1][c] p. 105-93 (Alan N. Resnick & Henry J. Sommer, eds., 16th ed. 2012); *see also Pearlman*, 462 B.R. at 854 (concluding that a bankruptcy court does not have the power to substantively consolidate a debtor with a non-debtor entity); *Helena Chem. Co. v. Circle Land and Cattle Corp. (In re Circle Land and Cattle Corp.)*, 213 B.R. 870, 876–77 (Bankr. D. Kan. 1997) (collecting cases and questioning whether the bankruptcy court has subject matter or personal jurisdiction over the non-debtor); *Goldman v. Haverstraw Assocs. (In re R.H.N. Realty Corp.)*, 84 B.R. 356, 358 (Bankr. S.D.N.Y. 1988) (amending bankruptcy petition to bring in affiliate as co-debtor violates co-debtor’s and its creditors’ due process rights); *Wells Fargo Bank of Tex. N.A. v. Sommers (In re Amco Ins.)*, 444 F.3d 690, 696 n.3 (5th Cir. 2006) (listing cases which have permitted consolidation of a debtor with a non-debtor while listing others that have refused to so consolidate).

We have found no reported decision ordering substantive consolidation as between a debtor and a non-debtor subsidiary solely because the debtor guaranteed obligations of its subsidiary or pledged its assets as collateral for its subsidiary’s obligations. Rather, the reported decisions in which substantive consolidation was ordered and in which there were debtor parent guaranties of a non-debtor subsidiary’s obligations cite multiple factors weighing in favor of substantive consolidation. *See, e.g., White v. Creditors Serv. Corp.*, 195 B.R. at 689–91 (substantive consolidation ordered in a Chapter 7 case where the “financial wherewithal and financial affairs” of the entities were so entangled that they constituted a single enterprise, there was substantial evidence of fraud between two of the debtors, and the “needs of all [entities] are satisfied from [all] available resources”); *Cent. Claims Servs., Inc. v. Eagle-Picher Indus., Inc. (In re Eagle-Picher Indus., Inc.)*, 192 B.R. 903 (Bankr. S.D. Ohio 1996) (substantive consolidation was warranted where a parent and its incorporated division demonstrated substantial identity, because among other factors, the parent and its division had integrated management, shared bank accounts and no procedure for repayment of intercompany debt); *In re Food Fair, Inc.*, 10 B.R. 123 (Bankr. S.D.N.Y. 1981) (ordering substantive consolidation of debtor and its operating subsidiaries where

it was impossible for an auditor to separate the entities' accounts, there were extensive cross-corporate guarantees, and creditors would not be unduly prejudiced).

Similarly, we have found no reported decision ordering substantive consolidation as between a debtor and a non-debtor subsidiary where corporate, partnership and limited liability company formalities were maintained by both parent debtor and non-debtor affiliate, assets and liabilities were separately managed, intercorporate transactions were managed on an arm's length basis, no overt holding out of the credit of a combined enterprise occurred and major decisions required a vote of an independent director.

Even where the consolidation target and its affiliates are all debtors in bankruptcy, the cases cite a multiplicity of factors supporting substantive consolidation. In *Richton Int'l Corp.*, the debtors shared management and issued consolidated financial statements, the parent made "significant operational and policy decisions" for the subsidiaries, and funds were repeatedly shifted among the debtors "in order to provide the necessary sustenance for operations." 12 B.R. at 556–57. There were also "extensive cross corporate guarantees of both bank and trade obligations." *Id.* at 558; *see also Cent. Claims Servs., Inc. v. Eagle-Picher Indus., Inc. (In re Eagle-Picher Indus., Inc.)*, 192 B.R. 903 (Bankr. S.D. Ohio 1996) (substantive consolidation was warranted where a parent and its division demonstrated substantial identity of the parties, because among other factors, the parent and its division had integrated management, shared bank accounts and no procedure for repayment of intercompany debt); *In re Standard Brands Paint Co.*, 154 B.R. 563, 572 (Bankr. C.D. Cal. 1993) (substantive consolidation ordered among debtors—a holding company and its paint manufacturing and operating subsidiaries—where the debtors always held themselves out to creditors as a consolidated entity, never gave creditors separate financial information, and had interdebtor debts); *In re Food Fair, Inc.*, 10 B.R. 123 (Bankr. S.D.N.Y. 1981) (ordering substantive consolidation of debtor and its operating subsidiaries where it was impossible for an auditor to separate the entities' accounts, there were extensive cross-corporate guarantees, and creditors would not be unduly prejudiced); *but see In re Owens Corning*, 419 F.3d at 216 (substantive consolidation of chapter 11 estates of debtor-borrowers and related entities that guaranteed their loan obligations, not appropriate because consolidation was sought primarily to disadvantage lender by depriving it of the guarantee for which it bargained); *In re Huntco Inc.*, 302 B.R. 35, 39–40 (Bankr. E.D. Mo. 2003) (substantive consolidation not appropriate between related debtor corporations even though there were inter-corporate transactions and some overlapping officers and directors, because creditors' committee failed to demonstrate any creditor detrimentally relied on that interrelationship, and consolidation would benefit one debtor's creditors at the expense of the other debtor's creditors).

Lastly, we note that although most of the cases in this area involve corporations, the fact that the Contractor and some of the Other Entities are limited liability companies does not affect our analysis or conclusions.

III. Opinion on Substantive Consolidation

At the outset we note that this opinion does not address any situation where a transaction between Contractor and its affiliate, other than those transactions described in this opinion, is a factor considered by a court in evaluating substantive consolidation of Contractor with any one or more of the Other Entities.

A review of the Documents and the representations in the Officer's Certificates suggests that the vast majority of the factors favoring substantive consolidation are not present in the relationship between Contractor and the Other Entities. The Documents and the representations in the Officer's Certificates indicate that (i) Contractor has kept and will continue to keep separate its assets from those of the Other Entities or other parties, (ii) Contractor has held and will hold itself out to the public as an independent entity, and (iii) Contractor has been and intends to be adequately capitalized.

A party seeking to substantively consolidate Contractor's assets and liabilities with those of the Other Entities could rely on (i) the books and records of Contractor and the Other Entities being kept in the same geographic location; (ii) ADP's pledge of its equity interest in Contractor as collateral for Contractor's obligations under the Decommissioning Agreement; and (iii) the fact that Contractor's assets may be included in the consolidated financial statements of an affiliate such as any of the Other Entities. Despite these negative factors, it should be difficult for creditors to persuade a court that substantive consolidation of Contractor with all or any of the Other Entities is proper.

First, although the books and records of the Other Entities and Contractor are maintained at the same location, Contractor's books and records have been and will continue to be maintained separately and readily identifiable as distinct from the books and records of the Other Entities.

Second, although ADP is pledging its equity interest in Contractor as collateral for Contractor's obligations under the Decommissioning Agreement, as provided in the recitals to the Pledge Agreement, Duke is unwilling to enter into the Decommissioning Agreement and the Spent Nuclear Fuel Agreement unless ADP agrees to pledge 100% of its equity interests in Contractor as collateral for Contractor's obligations under the Decommissioning Agreement. In any event, we understand that Duke is looking, among other things, to the separate existence and credit of Contractor and Buyer for performance and payment of their respective obligations under the Decommissioning Agreement and the Spent Nuclear Fuel Agreement, and is aware of Contractor's and Buyer's separate existence, assets and liabilities despite the Pledge Agreement.

Lastly, although Contractor's assets may be included in the consolidated financial statements of an affiliate such as the Other Entities, the consolidated financial statement of such Other Entity or other affiliate will include an appropriate notation indicating (i) the separateness of Contractor from such Other Entity or other affiliate, and (ii) that Contractor's assets and credit are not available to satisfy the debts and other obligations of such Other Entity or other affiliate. Moreover, Contractor will continue to maintain individual financial statements.

Consequently, it would be difficult to persuade a court that substantive consolidation of Contractor with all or any of the Other Entities is a proper remedy. There is no prejudice to the

Other Entities' creditors associated with the recognition of corporate separateness. Instead, we understand that Duke would suffer prejudice from, or would be harmed by, substantive consolidation because it has relied on the separate legal identity of Contractor from the Other Entities. Moreover, even if a bankruptcy court were to order substantive consolidation over Duke's objection like in *Republic Airways*, the court has the equitable power to order relief in a way that eliminates adverse effects to Duke and ensures that Duke receives the recovery to which it is entitled.

IV. Conclusion

Based on and subject to the foregoing, we are of the opinion that while there is no case litigated on the merits directly on point and the matter is not free from doubt, if any or all of the Other Entities were to become a debtor in a case under the Bankruptcy Code before Contractor achieves all of the End-State Conditions under the Decommissioning Agreement, a court exercising jurisdiction over such case under the Bankruptcy Code would not substantively consolidate Contractor's assets and liabilities with those of any of the Other Entities, assuming that a party in interest would present a timely objection to substantive consolidation.

In rendering the opinion set forth herein, we note that any conclusions as to what a court "would" or "should" hold on any particular issue is not a guarantee of what a court will hold but, rather, sets forth our conclusions as to what would or should be the proper result for a court if the facts are as we assumed, the issues are properly presented to it and the court follows existing precedent as to legal principles applicable in bankruptcy proceedings. Substantive consolidation, however, is an equitable doctrine, and courts have accorded different degrees of importance to the factual elements before them in determining whether to exercise their equitable powers to order substantive consolidation. A court's decision with respect to the matters described herein would be based on its own analysis and interpretation of the facts before it and applicable legal and equitable principles. A court could reach a conclusion different from ours, which conclusion would not necessarily constitute reversible error. We express no opinion as to the availability or the effect of a preliminary injunction, temporary restraining order, or other temporary relief resulting in a delay pending a determination on the merits.

This opinion is delivered pursuant to the Decommissioning Agreement and relates solely to the Bankruptcy Code and principles of substantive consolidation. This opinion speaks only as of the date hereof, and we disclaim any obligation to advise you of changes of law or fact that may occur after the date hereof.

This opinion is delivered by us as counsel for Contractor solely for your benefit in connection with the transaction referred to herein and may not be used, circulated, quoted or otherwise referred to or relied upon for any other purpose or by any other person or entity, except as set forth below, without our prior written consent. At your request, we hereby consent to reliance hereon by any future assignee of your interest in the Decommissioning Agreement pursuant to an assignment that is consented to in accordance with the express provisions of the Decommissioning Agreement, on the condition and the understanding that (i) any such reliance by a future assignee must be actual and reasonable under the circumstances, (ii) we have no responsibility or obligation to consider the applicability or correctness of this letter to any person or entity other than its named addressee or addressees or at any time other than as of the date

hereof, and (iii) any such assignee may rely on this letter to no greater extent than you may as of the date hereof but any such assignee also is subject to any changes or developments up to the time it acquires its interest that may adversely affect the opinions and matters referred to in this letter. We also hereby consent to disclosure of this opinion (but not reliance) to accountants, regulators or other third parties who require access to this opinion in connection with audit, regulation or similar functions.

Very truly yours,

PILLSBURY WINTHROP SHAW PITTMAN LLP

EXHIBIT M

FORM OF ISFSI DECOMMISSIONING TRUST AGREEMENT

ADP SF1, LLC

CR-3 ISFSI DECOMMISSIONING TRUST AGREEMENT

FOR

CRYSTAL RIVER 3 NUCLEAR POWER STATION

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CR-3 ISFSI DECOMMISSIONING TRUST AGREEMENT

CR-3 ISFSI DECOMMISSIONING TRUST AGREEMENT made as of this ___ day of _____, 20___, by and between ADP SF1, LLC, a Delaware limited liability company (“*SF1*”) and [_____] (the “*Trustee*”).

RECITALS

WHEREAS, Duke Energy Florida, LLC, a Florida limited liability company (“*DEF*”) owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida on the Crystal River Energy Complex site;

WHEREAS, the Crystal River 3 nuclear power station has been permanently shut down and is currently in SAFSTOR;

WHEREAS, pursuant to that certain Decommissioning Services Agreement dated as of the ___ day of _____, 2019, as amended from time to time (the “*Decommissioning Agreement*”), by and among DEF as Company, SF1 as Buyer, and ADP CR3, LLC, a Delaware limited liability company and an affiliate of SF1 as Contractor (“*Contractor*”), DEF has engaged Contractor and its Affiliates to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described therein, in exchange for [REDACTED] for these services;

WHEREAS, Contractor is licensed to possess, use, maintain and decommission the CR-3 Facility, including the independent spent fuel storage installation at the CR-3 Facility (the “*ISFSI*”);

WHEREAS, SF1 is the owner of the ISFSI and the spent nuclear fuel and waste stored or to be stored at the ISFSI, and as such, SF1 is responsible for paying the costs incurred by Contractor in maintaining and ultimately decommissioning the ISFSI;

WHEREAS, SF1, pursuant to the Decommissioning Agreement, wishes to establish the ISFSI Decommissioning Trust to hold funds for the purposes of providing financial assurance to Company under the Decommissioning Agreement;

WHEREAS, [_____] is willing to serve as Trustee of the ISFSI Decommissioning Trust on the terms and conditions herein set forth.

NOW, THEREFORE, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Trustee hereby agrees to accept Trust Contributions to the Trust delivered to it from time to time by or on behalf of SF1:

TO HAVE AND TO HOLD such Trust Contributions;

TO INVEST AND REINVEST the same as provided herein;

IN TRUST NEVERTHELESS, for the uses and purposes and upon the terms and conditions, as hereinafter set forth; and

TO PAY OR DISTRIBUTE from the ISFSI Decommissioning Trust as provided herein.

ARTICLE 1

DEFINITIONS

1.01 Definitions. As used in this Agreement, the following terms shall have the following meanings:

(a) “**Agreement**” means this ISFSI Decommissioning Trust Agreement as the same may be amended, modified, or supplemented from time to time.

(b) “**Applicable Law**” means all applicable laws, statutes, treaties, rules, codes, ordinances, Regulations, certificates, orders, interpretations, licenses and permits of any Governmental Authority and judgments, decrees, injunctions, writs, orders or like action of any court, arbitrator or other judicial or quasi-judicial tribunal of competent jurisdiction (including Environmental Laws, Health and Safety Laws and Nuclear Laws, and common law).

(c) “**Authorized Instructions**” has the meaning given in Section 6.03. For the avoidance of doubt, the parties acknowledge and agree that distribution instructions based on the form of certificate attached hereto as Exhibit A, that are executed and delivered by an Authorized Representative are Authorized Instructions.

(d) “**Authorized Representatives**” means the persons designated as such pursuant to Section 6.02.

(e) “[_____] **Affiliate**” has the meaning given in Section 6.02.

(f) “[_____] **Group**” has the meaning given in Section 6.15.

(g) “**Book-Entry System**” has the meaning given in Section 6.10.

(h) “**Business Day**” means a day other than Saturday or Sunday or any day which is a legal holiday or a day on which banking institutions in the Commonwealth of Pennsylvania are authorized or required by Applicable Law or other action of a Governmental Authority to close.

(i) “**Byproduct Material**” means any radioactive material (except Special Nuclear Material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing Special Nuclear Material.

(j) “**Centralized Functions**” has the meaning given in Section 6.15.

(k) “**Change in End-State Conditions**” means a material deviation by the Florida Department of Environmental Protection from the positions regarding the end state conditions reflected in the FDEP Letter.

(l) “**Closing**” means the consummation of the transactions as contemplated by the SNF PSA which shall be held within ten (10) Business Days after the date on which the last of the conditions precedent to Closing set forth in Sections 6.1 and 6.2 of the SNF PSA have been either satisfied or waived by the respective party for whose benefit such conditions precedent exist (except with respect to those conditions which by their terms are to be satisfied at Closing).

(m) “**Closing Date**” means the date on which the Closing occurs under the SNF PSA.

(n) “**Contribution**” means any contribution, cash or otherwise, made to the Trustee for deposit in the ISFSI Decommissioning Trust as provided in this Agreement.

(o) “**Country Risk Events**” has the meaning given in Section 6.07.

(p) “**CR-3 Facility**” means the pressurized reactor power plant and all of the ancillary facilities, equipment, supplies, structures and buildings, including the ISFSI and underground structures, that form the Crystal River nuclear power plant, commonly known as Crystal River Unit 3, located on the Gulf of Mexico in Citrus County, Florida, but in any event not including the Excluded Facilities.

(q) “**Crystal River Site**” means the area commonly known as the “Crystal River Energy Complex” that contains the CR-3 Facility, the NRC-Licensed Site, the ISFSI, and the Excluded Facilities, as further described and occupying the area as depicted in Attachment 1 of the Decommissioning Agreement.

(r) “**Customer-Related Data**” has the meaning given in Section 6.15.

(s) “**Data Providers**” has the meaning given in Section 6.13.

(t) “**Data Terms Website**” has the meaning given in Section 6.13.

(u) “**Decommission**” and “**Decommissioning**” means (a) the dismantlement and removal of the structures, and any reduction or removal of radioactivity, at the CR-3 Facility and the NRC-Licensed Site to a level that permits the release of all or any specified portion of the NRC-Licensed Site consistent with the radiological criteria for license termination specified by the NRC in 10 C.F.R. § 20.1402 for unrestricted use; (b) all other activities necessary for the retirement, dismantlement, decontamination or storage of the CR-3 Facility and NRC-Licensed Site in compliance with all applicable Nuclear Laws and Environmental Laws, including the applicable requirements of the Atomic Energy Act and the NRC’s rules, regulations, orders and pronouncements thereunder; (c) operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, the packaging of the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site; (d) restoration of the NRC-Licensed Site in

accordance with Applicable Laws; and (e) any planning and administration activities incidental thereto.

(v) “**Decommissioning Agreement**” has the meaning given in the Recitals of this Agreement.

(w) “**Depository**” has the meaning given in Section 6.10.

(x) “**Decommissioning Costs**” means the costs and expenditures incurred for goods and services (including any planning and administrative activities incidental thereto) provided in connection with the Decommissioning of the ISFSI and achieving the End-State Conditions.

(y) “**DEF**” has the meaning given in the Recitals of this Agreement.

(z) “**Distribution Certificate**” means a document properly completed and executed by an Authorized Representative of SF1 and substantially in the form of Exhibit A, as it may from time to time be amended.

(aa) “**Effective Date**” means the date of this Agreement as shown on the first page hereof.

(bb) “**End-State Conditions**” means all of the following conditions, collectively, and “achieving” or “satisfying” the End-State Conditions, or terms of similar import, means the satisfaction of all of the following conditions:

(i) Contractor has satisfied all of the ISFSI-Only Interim End-State Conditions;

(ii) Contractor has fully performed all of its obligations under the License Termination Plan as approved by the NRC, including removal of Spent Nuclear Fuel from the NRC-Licensed Site and the Decommissioning of the ISFSI;

(iii) Contractor has completed the Remediation of all Hazardous Substances present in, on or under the NRC-Licensed Site sufficient to comply with Environmental Laws and all applicable Permits;

(iv) without limiting Contractor’s obligation to satisfy the criteria to complete the Decommissioning of the ISFSI, all buildings and structures constituting the ISFSI, including foundations, have been removed to a minimum of three feet (3’) below grade and backfilled, graded and seeded to prevent erosion, and any underground storage tanks and large diameter pipes that are part of or located on or under the ISFSI and not otherwise required by law or this Agreement to be removed, have been filled in compliance with all applicable Permits;

(v) the NRC has approved the termination of the NRC License and released the ISFSI Site from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402; and

(vi) Contractor has completed all of the work necessary to comply with the conditions set forth in the FDEP Letter and any Change in End-State Conditions, as applicable.

(cc) “**Environment**” means all soil, real property, air, water (including surface waters, streams, ponds, drainage basins and wetlands), groundwater, water body sediments, drinking water supply, stream sediments or land, including land surface or subsurface strata, including all fish, plant, wildlife, and other biota and any other environmental medium or natural resource.

(dd) “**Environmental Laws**” means all Applicable Laws, other than Nuclear Laws, relating to pollution, the protection, restoration or remediation of or prevention of harm to the Environment or natural resources, or the protection of human health and safety from the presence of Hazardous Substances, including Laws relating to Releases of any Hazardous Substances (including Releases to the Environment) or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, Release, transport, disposal or handling of Hazardous Substances, and Laws regarding the treatment, storage, handling, transportation, and disposal of solid waste. “Environmental Laws” include the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.), the Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), the Oil Pollution Act (33 U.S.C. §§ 2701 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. §§ 11001 et seq.), the Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.) only as it relates to Hazardous Substances, and the Florida Laws governing hazardous materials and solid waste.

(ee) “**Environmental Permit**” means any federal, state or local permits, licenses, approvals, consents, registrations or authorizations required by any Governmental Authority with respect to the CR-3 Facility or the NRC-Licensed Site under or in connection with any Environmental Law, including any and all orders, consent orders or binding agreements issued or entered into by a Governmental Authority under any applicable Environmental Law, but excluding the NRC License.

(ff) “**Exchange Act**” has the meaning given in Section 6.21.

(gg) “**Excluded Facilities**” means the facilities on the Crystal River Site (and the real property upon which the same are located) that are not related to the CR-3 Facility, including the switchyard, operating and non-operating fossil fuel-fired (coal, natural gas) power generation facilities cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling docks, railroad, and the other buildings or facilities that are not to be Decommissioned hereunder as identified in Attachment 1 of the Decommissioning Agreement.

(hh) “**FDEP Letter**” means the letter from the Florida Department of Environmental Protection dated February 15, 2019, a copy of which is attached to the Decommissioning Agreement as Attachment 13.

(ii) “**Governmental Authority**” means any federal, state, local provincial, foreign, international or other governmental, regulatory or administrative agency, taxing authority, commission, department, board, or other government subdivision, court or tribunal.

(jj) “**Greater Than Class C Waste**” means radioactive waste that contains radionuclide concentrations exceeding the values in Table 1 or Table 2 of 10 C.F.R. § 61.55, and therefore is currently not generally acceptable for disposal at existing (near surface) low level radioactive waste disposal facilities.

(kk) “**Hazardous Substances**” means: (a) any petroleum (or any fraction thereof), asbestos, asbestos-containing material, and urea formaldehyde foam insulation and transformers or other equipment that contains polychlorinated biphenyl; (b) any chemicals, materials or substances defined as or included in the definition of “hazardous substances”, “hazardous wastes”, “hazardous materials”, “hazardous constituents”, “restricted hazardous materials”, “extremely hazardous substances”, “toxic substances”, “contaminants”, “pollutants”, “toxic pollutants”, “hazardous air pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law; and (c) any other chemical, material, waste or substance that can form the basis of any Liability under any applicable Environmental Law; except that, in each case and notwithstanding any other provision of this Agreement, Hazardous Substances shall not include Nuclear Material.

(ll) “**Health and Safety Laws**” means any Applicable Laws pertaining to safety and health in the workplace, including the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., and the Toxic Substances Control Act, 15 U.S.C. 2601, et seq.

(mm) “**High Level Waste**” or “**HLW**” means: (a) the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and (b) other highly radioactive material that the NRC, consistent with existing Applicable Law, determines by rule requires permanent isolation, including Greater Than Class C Waste.

(nn) “**High Level Waste Repository**” means a facility which is designed, constructed and operated by or on behalf of the Department of Energy for the storage and disposal of Spent Nuclear Fuel in accordance with the requirements set forth in the Nuclear Waste Policy Act of 1982, as amended.

(oo) “**Investment Account**” has the meaning given in Section 8.01(b).

(pp) “**Investment Manager**” has the meaning given in Section 8.01(a).

(qq) “**ISFSI**” means the existing dry spent fuel storage installation on the Crystal River Site where the Spent Nuclear Fuel and HLW from the CR-3 Facility is located and stored, and the ancillary facilities related thereto, but excluding the Spent Nuclear Fuel and High Level Waste stored thereon, and excluding the storage canisters that will be shipped together with the Spent Nuclear Fuel and the HLW when it is removed from the ISFSI and the NRC-Licensed Site.

(rr) “**ISFSI-Only Interim End-State Conditions**” means all of the following conditions, collectively, and “achieving” or “satisfying” the ISFSI-Only Interim End-State Conditions, or terms of similar import, means the satisfaction of all of the following conditions:

(a) without limiting Contractor’s obligation to satisfy the criteria to complete the Decommissioning of the CR-3 Facility, all buildings and structures constituting the CR-3 Facility, other than the ISFSI, have been removed to a minimum of three feet (3’) below grade and backfilled, graded and seeded to prevent erosion;

(b) underground storage tanks and large diameter pipes that are part of the CR-3 Facility, other than the ISFSI, and not otherwise required by Applicable Law or the Decommissioning Agreement to be removed have been filled in compliance with all applicable Permits;

(c) Contractor has otherwise completed the Decommissioning of the CR-3 Facility and fully performed all of its obligations under the PLTA, with the exception of removal of Spent Nuclear Fuel and HLW from the NRC-Licensed Site and the Decommissioning of the ISFSI;

(d) Contractor has completed the Remediation of Hazardous Substances present in, on or under the NRC-Licensed Site other than with respect to the ISFSI Site, sufficient to comply with Environmental Laws and all applicable Permits; and

(e) the NRC has approved an amendment to the NRC License to release the NRC-Licensed Site from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402, except for the ISFSI Site.

(ss) “**ISFSI Site**” means the portion of the Crystal River Site where the ISFSI is located, as further described and occupying the area as depicted in Attachment 1 of the Decommissioning Agreement, and including the area that lies within the Exclusion Area Boundary, as that area may be modified from time to time under the NRC License.

(tt) “**License Termination Plan**” has the meaning defined in applicable NRC regulations.

(uu) “**Losses**” has the meaning given in Section 6.07.

(vv) “**Low Level Waste**” means radioactive material that (a) is neither Spent Nuclear Fuel nor HLW; and (b) any other substance that the NRC, consistent with existing Applicable Law and in accordance with clause (a), classifies as low-level radioactive waste.

(ww) “**Market Data**” has the meaning given in Section 6.13.

(xx) “**NMSS Director**” means the Director of the NRC’s Office of Material Safety and Safeguards.

(yy) “**NRC**” means the United States Nuclear Regulatory Commission and any successor agency thereto.

(zz) “**NRC License**” means the NRC Operating License No DPR-72, Docket No. 50-302 for the CR-3 Facility and the NRC-Licensed Site, and all amendments thereto.

(aaa) “**NRC-Licensed Site**” means all of the real property subject to the NRC License, as more particularly described in Attachment 1 to the Decommissioning Agreement. Any reference to the NRC-Licensed Site shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at the NRC-Licensed Site and any references to items “at the NRC-Licensed Site” shall include all items “at, in, on, upon, over, across, under, and within” the NRC-Licensed Site.

(bbb) “**Nuclear Laws**” means all Applicable Laws, other than Environmental Laws, relating to the regulation of nuclear power plants, Source Material, Byproduct Material and Special Nuclear Material; the regulation of Low Level Waste, HLW and Spent Nuclear Fuel; the transportation and storage of Nuclear Material; the regulation of Safeguards Information (as defined in 10 C.F.R. § 2.4); the enrichment of uranium; the disposal and storage of Spent Nuclear Fuel; contracts for and payments into the Nuclear Waste Fund; and the antitrust laws and the Federal Trade Commission Act, as applicable to specified activities or proposed activities of certain licensees of commercial nuclear reactors. Nuclear Laws include the Atomic Energy Act; the Price-Anderson Act; the Energy Reorganization Act of 1974 (42 U.S.C. Section 5801 et seq.); Convention on the Physical Protection of Nuclear Material Implementation Act of 1982 (Public Law 97 -351; 96 Stat. 1663); the Foreign Assistance Act of 1961 (22 U.S.C. Section 2429 et seq.); the Nuclear Non-Proliferation Act of 1978 (22 U.S.C. Section 3201); the Low-Level Radioactive Waste Policy Act (42 U.S.C. Section 2021b et seq.); the Nuclear Waste Policy Act (42 U.S.C. Section 10101 et seq. as amended); the Low-Level Radioactive Waste Policy Amendments Act of 1985 (42 U.S.C. Section 2021d, 471); the Energy Policy Act of 1992 (4 U.S.C. Section 13201 et seq.); the provisions of 10 C.F.R. § 73.21, and any state or local Applicable Laws, other than Environmental Laws, analogous to the foregoing.

(ccc) “**Nuclear Material**” means Source Material, Byproduct Material, Low Level Waste, HLW, and Special Nuclear Material, including Spent Nuclear Fuel.

(ddd) “**Nuclear Waste Fund**” means the fund established by Section 302(c) of the Nuclear Waste Policy Act in which the Spent Nuclear Fuel fees to be used for the design, construction and operation of a High Level Waste Repository and other activities related to the storage and disposal of Spent Nuclear Fuel is deposited.

(eee) “**Operational Losses**” has the meaning given in Section 6.08.

(fff) “**Oral Instructions**” has the meaning given in Section 6.02.

(ggg) “**Order**” means any order relating to Decommissioning issued by a Governmental Authority and applicable to the CR-3 Facility.

(hhh) “**Permits**” means any federal, state or local permits, licenses, approvals, consents, registrations or authorizations required by any Governmental Authority in connection with the Decommissioning, but not including the NRC License or any Environmental Permits.

(iii) “**PLTA**” means the partial License Termination application to be submitted to the NRC in order to obtain the release of the NRC-Licensed Site, other than the ISFSI Site, from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402, and achieve the ISFSI-Only Interim End-State Conditions.

(jjj) “**Regulation**” means any requirement having the force of law which is binding on SF1.

(kkk) “**Release**” means any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a Hazardous Substance or Nuclear Material into the Environment or within any building, structure, facility or fixture; provided, however, that Release shall not include any release that is permissible under applicable Environmental Laws or any Permit.

(lll) “**Remediation**” means action of any kind required by any Applicable Law or order of a Governmental Authority to address a Release, the threat of a Release or the presence of Hazardous Substances, including any or all of the following activities:

(a) monitoring, investigation, assessment, treatment, cleanup, containment, removal, mitigation, response or restoration work; (b) obtaining any permits, consents, approvals or authorizations of any Governmental Authority necessary to conduct any such activity; (c) preparing and implementing any plans or studies for any such activity; (d) obtaining a written notice from a Governmental Authority with jurisdiction under Environmental Laws that no material additional work is required by such Governmental Authority; (e) the use, implementation, application, installation, operation or maintenance of remedial action, remedial technologies applied to the surface or subsurface soils, excavation and treatment or disposal of soils, systems for long term treatment of surface water or ground water, engineering controls or institutional controls; and (f) any other activities required under Environmental Laws to address the presence or Release of Hazardous Substances.

(mmm) “**Required Care**” has the meaning given in Section 6.08.

(nnn) “**Sanctions**” means all economic sanctions laws, rules, regulations, executive orders and requirements administered by any governmental authority of the United States (including the United States Office of Foreign Assets Control) or any other applicable domestic or foreign authority with jurisdiction over SF1.

(ooo) “**Securities**” has the meaning given in Section 6.07.

(ppp) “**SNF PSA**” means the Spent Nuclear Fuel Purchase and Sale Agreement attached to the Decommissioning Agreement as Exhibit A.

(qqq) “**Source Material**” means: (a) uranium or thorium or any combination thereof, in any physical or chemical form, or (b) ores which contain by weight one-twentieth of one percent (0.05%) or more of (i) uranium, (ii) thorium, or (iii) any combination thereof. Source Material does not include Special Nuclear Material.

(rrr) “**Special Nuclear Material**” means (a) plutonium, uranium-233, uranium enriched in the isotope-233 or in the isotope-235, and any other material that the NRC

determines to be “Special Nuclear Material;” and (b) any material artificially enriched by any of the materials or isotopes described in clause (a). Special Nuclear Material includes the Spent Nuclear Fuel; provided, however, that Special Nuclear Material does not include Source Material.

(sss) “*Spent Nuclear Fuel*” means all nuclear fuel located at the ISFSI that has been permanently withdrawn from the nuclear reactor in the CR-3 Facility following irradiation, and has not been chemically separated into its constituent elements by reprocessing.

(ttt) “*Subcustodian*” has the meaning given in Section 6.08.

(uuu) “*Third Party Service Providers*” has the meaning given in Section 6.13.

(vvv) “*Trust Contributions*” has the meaning given in Section 3.01.

(www) “*Trustee*” has the meaning given in the Preamble of this Agreement, or any successor appointed pursuant to Section 6.01.

(xxx) “*ISFSI Decommissioning Trust*” has the meaning given in Section 2.04.

(yyy) “*Written Instructions*” has the meaning given in Section 6.02.

ARTICLE 2

ISFSI DECOMMISSIONING TRUST PURPOSE AND NAME

2.01 ISFSI Decommissioning Trust Purpose. Subject only to the provisions of Article 4, the exclusive purpose of this ISFSI Decommissioning Trust is to receive funds for the purpose of providing financial assurance for Decommissioning Costs and to hold, administer, invest and re-invest and pay over the same for the benefit of SF1 in accordance with the provisions hereof.

2.02 Establishment of ISFSI Decommissioning Trust. By execution of this Agreement, SF1:

(a) establishes the ISFSI Decommissioning Trust, which shall be effective on the Effective Date and which shall consist of Trust Contributions delivered to the Trustee by or at the direction of SF1 in accordance with Article 3, as well as investments, reinvestments and earnings on such Trust Contributions; and

(b) appoints [_____] as Trustee of the ISFSI Decommissioning Trust.

2.03 Acceptance of Appointment. Upon the terms and conditions set forth in this Agreement, [_____] accepts appointment as Trustee of this ISFSI Decommissioning Trust. The Trustee declares that it will hold all estate, right, title and interest it may acquire hereunder exclusively for the purposes set forth in this Article 2, subject only to the provisions of Article 4. The Trustee shall receive the Trust Contributions deposited with it by Contractor on behalf of SF1 and shall deposit the Trust Contributions in the ISFSI Decommissioning Trust. The Trustee

shall hold, manage, invest and administer the assets of such Trust Contributions, together with earnings and appreciation thereon, in accordance with and subject to the terms of this Agreement. In performing its duties under this Agreement, the Trustee shall exercise reasonable care, skill and caution under the circumstances then prevailing that a prudent professional trustee acting in like capacity and familiar with such matters would use in carrying out the provisions of this Agreement. In addition, an Investment Manager, or anyone else directing investments made in the trust, shall adhere to a “prudent investor” standard, as specified in 18 C.F.R. § 35.32(a)(3).

2.04 Name of ISFSI Decommissioning Trust. The Trust Contributions received by the Trustee, together with the proceeds, reinvestments and appreciation thereof shall constitute the “CR-3 ISFSI DECOMMISSIONING TRUST” (herein, “*ISFSI Decommissioning Trust*”).

2.05 No Authority to Conduct Business. Subject to Article 4, the purpose of the ISFSI Decommissioning Trust is limited specifically to the matters set forth in Section 2.01, and there is no objective to carry on any business unrelated to the ISFSI Decommissioning Trust purpose set forth in Section 2.01, or to divide the gains therefrom.

ARTICLE 3

CONTRIBUTIONS

3.01 Trust Contributions. Pursuant to the terms of the Decommissioning Agreement, certain funds will be contributed by Contractor on behalf of SF1 to the ISFSI Decommissioning Trust (“*Trust Contributions*”).

3.02 Pooling and Allocation of Net Income. The Trustee may pool the assets of the ISFSI Decommissioning Trust for investment purposes in accordance with the Written Instructions of SF1, subject to the limitations on investments contained in Article 8. Net income shall be allocated on a *pro rata* basis, based upon the relative proportion of assets pooled. The Trustee shall be entitled to presume, and not be responsible for determining, that any Written Instructions from SF1 comply with the limitations on investments contained in Article 8. The Trustee may also rely upon the written opinion of legal counsel of SF1, who may be an employee of SF1, with respect to any question arising under this Section 3.02.

3.03 Use of Assets. The assets of ISFSI Decommissioning Trust Fund shall be used exclusively (a) to satisfy, in whole or in part, any expenses or liabilities incurred to satisfy the SF1’s obligation to pay Decommission Costs, including expenses incurred in connection with the preparation for decommissioning the ISFSI, (b) to pay the administrative costs and other incidental expenses of ISFSI Decommissioning Trust Fund, and (c) to invest in publicly traded securities and investments (including common trust funds) as directed by the investment manager(s) pursuant to Section 6.02. Except for investments tied to market indexes or other non-nuclear sector collective, commingled or mutual funds, the assets of the Funds shall not be invested in: (1) the securities or other obligations of SF1, or any affiliates thereof, or their successors or assigns; and (2) the securities or other obligations of any entity owning or operating one or more nuclear power plants. A non-nuclear sector collective, commingled or

mutual fund is one in which less than 50 percent of the fund is invested in the securities of entities that own or operate a nuclear power plant or that are parent companies of subsidiaries that own or operate a nuclear power plant.

ARTICLE 4

DISBURSEMENTS

4.01 Certificate for Decommissioning Costs. If assets are required to pay Decommissioning Costs, SF1 shall present a certificate substantially in the form attached hereto as Exhibit A to the Trustee signed by an Authorized Person, requesting payment.

4.02 Fees. The Trustee shall receive as exclusive compensation for its services such amounts as may from time to time be agreed to by the Trustee and SF1.

4.03 Liquidation of Investments. At the direction of SF1 or its Investment Manager pursuant to Authorized Instructions, the Trustee shall sell or liquidate such investments of the ISFSI Decommissioning Trust as may be specified, with the proceeds to be credited to the ISFSI Decommissioning Trust.

4.04 Other Distributions. Upon termination pursuant to article 5, the Trustee shall distribute the assets of the ISFSI Decommissioning Trust as directed by SF1 in a Distribution Certificate.

ARTICLE 5

TERMINATION

5.01 Termination of ISFSI Decommissioning Trust. The ISFSI Decommissioning Trust shall terminate on the first to occur of (a) the satisfaction of the End-State Conditions (as evidenced by written notification of that fact to the Trustee by an Authorized Representative of SF1) or (b) twenty-one (21) years after the death of the last survivor of each person who was an officer or director of SF1 on the date of this Agreement and each of their descendants born on or prior to that date, as notified to the Trustee in a written notification from an Authorized Representative of SF1. Prior to its termination, this ISFSI Decommissioning Trust shall be irrevocable.

5.02 Distribution of ISFSI Decommissioning Trust Upon Termination. Upon termination of this ISFSI Decommissioning Trust, at the direction of SF1 pursuant to Authorized Instructions, the Trustee shall liquidate the assets of the ISFSI Decommissioning Trust and distribute them (including accrued, accumulated and undistributed net income), unless otherwise determined, ordered or required by any Governmental Authority with jurisdiction over the CR-3 Facility, to SF1. An Authorized Representative will provide the Trustee with written notice(s) regarding the timing and amount of distributions to be made pursuant to this Section 5.02. The Trustee shall be permitted to rely conclusively upon any written notification received from an Authorized Representative relating to any determination, order or decision of Governmental

Authorities, provided a copy of such determination, order or decision is included with the written notification.

ARTICLE 6

TRUSTEE

6.01 Authority of Trustee. The Trustee shall have the authority and discretion to manage and control the ISFSI Decommissioning Trust to the extent provided in this Agreement but does not guarantee the ISFSI Decommissioning Trust in any manner against investment loss or depreciation in asset value or guarantee the adequacy of the ISFSI Decommissioning Trust to satisfy the requirements of 10 C.F.R. § 72.30.

6.02 Authorized Representative. “*Authorized Representative*” shall mean any person authorized by SF1 or an Investment Manager to give Oral Instructions or Written Instructions with respect to the ISFSI Decommissioning Trust or with respect to foreign exchange, derivative investments or information and transactional web based services provided by the Trustee or any direct or indirect subsidiary of [_____] (a “[_____] *Affiliate*”). “*Oral Instructions*” shall mean instructions expressed in spoken words received by the Trustee and “*Written Instructions*” shall mean written communications received by the Trustee by S.W.I.F.T., overnight delivery, postal services, email, on-line communication system or other method or system, each as specified by the Trustee as available for use in connection with the services hereunder. Authorized Representatives shall include persons authorized by an Authorized Representative. Authorized Representatives, their signatures and the extent of their authority shall be provided by Written Instructions. SF1 shall cause the Investment Manager to furnish the Trustee with Written Instructions identifying Authorized Representatives and their signatures. The Trustee may conclusively rely on the authority of such Authorized Representatives until it receives a Written Instruction to the contrary.

6.03 Authorized Instructions. The Trustee shall be entitled to rely upon any Oral or Written Instructions actually received by the Trustee and reasonably believed by the Trustee to be from an Authorized Representative (“*Authorized Instructions*”). SF1 agrees that an Authorized Representative shall forward to the Trustee Written Instructions confirming Oral Instructions by the close of business of the same day that such Oral Instructions are given to the Trustee. The Trustee may act on such Oral Instructions but is not obligated to do so until Written Instructions are received. SF1 agrees that the fact that Written Instructions confirming Oral Instructions are not received or that contrary Written Instructions are received by the Trustee shall in no way affect the validity or enforceability of transactions authorized by such Oral Instructions and effected by the Trustee. Provided, however, that if the Trustee has not yet acted upon Oral Instructions upon receipt of contrary Written Instructions, the Trustee shall be bound by such Written Instructions.

6.04 Authentication. If the Trustee receives Written Instructions that appear on their face to have been transmitted by an Authorized Representative via (i) email or other electronic method that is not secure, or (ii) secure electronic transmission containing applicable authorization codes, passwords or authentication keys, SF1 understands and agrees that the Trustee cannot determine the identity of the actual sender of such Written Instructions and that

the Trustee shall be entitled to conclusively presume that such Written Instructions have been sent by an Authorized Representative and are Authorized Instructions. SF1 shall be responsible for ensuring that only Authorized Representatives transmit such Written Instructions to the Trustee and that all Authorized Representatives treat applicable user and authorization codes, passwords and authentication keys with extreme care.

6.05 Security Procedure. SF1 acknowledges and agrees that it is fully informed of the protections and risks associated with the various methods of transmitting Written Instructions to the Trustee and that there may be more secure methods of transmitting Written Instructions than the method selected by the sender. SF1 agrees that the security procedures, if any, to be followed in connection with a transmission of Written Instructions provide to it a commercially reasonable degree of protection in light of its particular needs and circumstances.

6.06 On-Line Systems. If an Authorized Representative elects to transmit Written Instructions through an on-line communication system offered by the Trustee, the use thereof shall be subject to any terms and conditions contained in a separate written agreement. If an Authorized Representative elects, with the Trustee's prior consent, to transmit Written Instructions through an on-line communications service owned or operated by a third party, SF1 agrees that the Trustee shall not be responsible or liable for the reliability or availability of any such service.

6.07 Securities. "**Securities**" shall include, without limitation, any common stock and other equity securities, depository receipts, limited partnership and limited liability company interests, bonds, debentures and other debt securities, notes or other obligations, and any instruments representing rights to receive, purchase, or subscribe for the same, or representing any other rights or interests therein (whether represented by a certificate or held in a Depository, with a Subcustodian or on the books of the issuer) that are acceptable to the Trustee. Subject to the terms hereof, SF1 hereby authorizes the Trustee to hold any Securities in registered form in the name of the Trustee or one of its nominees. Securities held hereunder shall be segregated on the Trustee's books and records from the Trustee's own property. The Trustee shall be entitled to utilize Subcustodians and Depositories in connection with its performance hereunder. Securities and cash held through Subcustodians shall be held subject to the terms and conditions of the Trustee's or a [] Affiliate's agreements with such Subcustodians. Securities and cash deposited by the Trustee in a Depository will be held subject to the rules, terms and conditions of such Depository. Subcustodians may hold Securities in Depositories in which such Subcustodians participate. Unless otherwise required by local law or practice or a particular subcustodian agreement, Securities deposited with Subcustodians will be held in a commingled account in the name of the Trustee or a [] Affiliate for its clients. The Trustee shall identify on its books and records the Securities and cash belonging to the ISFSI Decommissioning Trust, whether held directly or indirectly through Depositories or Subcustodians. In no event shall the Trustee be liable for any losses, costs, expenses, damages, liabilities and claims ("**Losses**") arising out of the holding of Securities or cash in any particular country, including but not limited to, Losses resulting from nationalization, expropriation or other governmental actions; regulation of the banking or securities industry; exchange or currency controls or restrictions, devaluations or fluctuations or currency redenomination; availability of Securities or cash or market conditions which prevent the transfer of property or the execution of Securities transactions or affect the value of property ("**Country Risk Events**").

6.08 Subcustodians. “**Subcustodian**” shall mean a bank or other financial institution (other than a Depository) that is utilized by the Trustee or by a [_____] Affiliate, in its discretion, in connection with the purchase, sale or custody of Securities or cash hereunder. The Trustee shall exercise reasonable care in the selection or retention, monitoring and continued use of Subcustodians in light of prevailing rules, practices, procedures and circumstances in the relevant market (the “**Required Care**”).

With respect to any Losses incurred by the ISFSI Decommissioning Trust, SF1, or any other person as a result of the acts or the failure to act by any Subcustodian (“**Operational Losses**,” which specifically excludes Losses arising out of or relating to Country Risk Events), the Trustee shall be liable for:

(a) Operational Losses with respect to Securities or cash held by the Trustee with or through a [_____] Affiliate; and

(b) Operational Losses with respect to Securities or cash held by the Trustee with or through a Subcustodian (other than a [_____] Affiliate) to the extent that such Operational Losses were directly caused by failure on the part of the Trustee to exercise Required Care.

With respect to all other Operational Losses not covered by clauses (a) and (b) above, the Trustee shall take appropriate action to recover Operational Losses from such Subcustodian, and Trustee’s sole liability shall be limited to amounts recovered from such Subcustodian (exclusive of costs and expenses incurred by the Trustee).

In addition, the Trustee shall be liable for repayment to the ISFSI Decommissioning Trust of cash credited to the ISFSI Decommissioning Trust and credited to any relevant cash account of the Subcustodian that the Trustee is not able to recover from the Subcustodian (other than as a result of Country Risk Events).

6.09 Deposits. The Trustee may hold cash in accounts or may arrange to have such cash held by a [_____] Affiliate, Subcustodian, or with a Depository. Where cash is on deposit with the Trustee, a Subcustodian, a [_____] Affiliate or a Depository, it will be subject to the terms of this Agreement and such deposit terms and conditions as may be issued by such entity from time to time.

6.10 Depositories. “**Depository**” shall include the Book-Entry System, the Depository Trust Company, Euroclear, Clearstream Banking S.A., the Canadian Depository System, CLS Bank International and any other securities depository, book-entry system or clearing agency (and their respective successors and nominees) authorized to act as a securities depository, book-entry system or clearing agency pursuant to Applicable Law. “**Book-Entry System**” shall mean the U.S. Federal Reserve/Treasury book-entry system for receiving and delivering Securities, its successors and nominees. The Trustee shall have no liability whatsoever for the action or inaction of any Depository or for any Losses resulting from the maintenance of Securities with a Depository. The Trustee shall be liable to repay cash credited to the ISFSI Decommissioning Trust and credited to any relevant account at such Depository (other than as a result of Country Risk Events).

6.11 Overdrafts and Indebtedness. The Trustee may, in its sole discretion, advance funds in any currency hereunder. If an overdraft occurs in the ISFSI Decommissioning Trust (including, without limitation, overdrafts incurred in connection with the settlement of securities transactions, funds transfers or foreign exchange transactions) or if SF1 is for any other reason indebted to the Trustee, SF1 agrees to repay the Trustee on demand or upon becoming aware of the amount of the advance, overdraft or indebtedness, plus accrued interest at a rate then charged by the Trustee to its institutional custody clients in the relevant currency.

6.12 Securing Repayment. In order to secure repayment of the ISFSI Decommissioning Trust's obligations to the Trustee, SF1 on behalf of the ISFSI Decommissioning Trust hereby pledges and grants to the Trustee a continuing first lien and security interest in, and right of setoff against all of the ISFSI Decommissioning Trust's right, title and interest in the Securities, money and other property now or hereafter held in the ISFSI Decommissioning Trust (including proceeds thereof); provided, that SF1 does not grant the Trustee a security interest in any Securities issued by an affiliate of the Trustee (as defined in Section 23A of the Federal Reserve Act). SF1 represents that the ISFSI Decommissioning Trust owns the Securities in the ISFSI Decommissioning Trust free and clear of all liens, claims, security interests, and the first lien and security interest granted herein shall be subject to no setoffs, counterclaims, or other liens prior to or on a parity with it in favor of any other party (other than specific liens granted preferred status by statute). SF1 shall take any additional steps required to assure the Trustee of such priority security interest, including notifying third parties or obtaining their consent. The Trustee shall be entitled to collect from the ISFSI Decommissioning Trust sufficient cash for reimbursement, and if such cash is insufficient, to sell the Securities in the ISFSI Decommissioning Trust to the extent necessary to obtain reimbursement. In this regard, the Trustee shall be entitled to all the rights and remedies of a pledgee and secured creditor under Applicable Law then in effect.

6.13 Pricing and Other Data. For purposes of this Section, "**Market Data**" shall mean pricing or other data related to Securities and other assets. Market Data includes but is not limited to Securities identifiers, valuations, bond ratings, classification data, and other data received from Investment Managers and others. In providing Market Data related to the ISFSI Decommissioning Trust in connection with this Agreement, the Trustee is authorized to use pricing vendors, brokers, dealers, Investment Managers, Authorized Representatives, Subcustodians, Depositories and any other person providing Market Data to the Trustee ("**Data Providers**"). The Trustee may follow Authorized Instructions providing pricing or other Market Data, even if such instructions direct the Trustee to override its usual procedures and Market Data sources. The Trustee shall be entitled to rely without inquiry on all Market Data (and all Authorized Instructions related to Market Data) provided to it, and the Trustee shall not be liable for any Losses incurred as a result of Market Data that contains errors or that is incomplete. SF1 acknowledges that certain pricing or valuation information may be based on calculated amounts rather than actual market transactions and may not reflect actual market values, and that the variance between such calculated amounts and actual market values may be material. The Trustee shall not be required to inquire into the pricing or any Securities or other assets even though the Trustee may receive different prices for the same Securities or assets. Market Data may be the intellectual property of the Data Providers, which may impose additional terms and conditions upon SF1's use of the Market Data. The additional terms and conditions can be found on the Data Terms Website, at [_____] ("**Data Terms Website**"), or any successor

website the address of which is provided by the Trustee to SF1. SF1 agrees to those terms as they are posted on the Data Terms Website from time to time. Certain service providers hired by the Trustee to provide or to assist the Trustee with providing value-added services requested by SF1 (“**Third Party Service Providers**”) may not utilize SF1’s directed price due to system constraints or differing data sources. Performance measurement and analytic services may use different data sources than those used by the Trustee to provide Market Data for the ISFSI Decommissioning Trust, which may result in differences between custodial reports and performance measurement and analytic reports.

6.14 Books of Account. The Trustee shall keep true and correct books of account with respect to the ISFSI Decommissioning Trust, which books of account shall at all reasonable times be open to inspection by SF1 or its duly appointed representatives. The Trustee shall, upon written request of SF1, permit government agencies, such as the NRC, to inspect the books of account of the ISFSI Decommissioning Trust. The Trustee shall furnish to SF1 on or about the tenth Business Day of each month a statement for the ISFSI Decommissioning Trust showing, with respect to the preceding calendar month, the balance of assets on hand at the beginning of such month, all receipts, investment transactions, and disbursements which took place during such month and the balance of assets on hand at the end of such month. Upon the expiration of ninety (90) days from the date of filing such written reports with SF1, the Trustee shall be forever released and discharged from all liability or accountability to anyone with respect to all acts and transactions shown in such written reports, except such acts or transactions as to which SF1 shall take exception by written notice to the Trustee within such ninety (90) day period; provided, however, that nothing contained in this Section 6.14 shall be deemed to relieve the Trustee of any liability imposed pursuant to Section 6.16. In the event that any exception taken by SF1 cannot be amicably adjusted, SF1 may, within one (1) year of the date of such exception, file the written report in a court having jurisdiction and upon the audit thereof any and all such exceptions which may not have been amicably settled shall be heard and adjudicated. Any exception not so filed within one (1) year shall be deemed waived and any liability of the Trustee with respect thereto shall be deemed released. All records and accounts maintained by the Trustee with respect to the ISFSI Decommissioning Trust shall be preserved for a period of four (4) years. Upon the expiration of such required retention period, the Trustee shall have the right to destroy such records and accounts after first notifying SF1 in writing of its intention and transferring to SF1 (originals or copies, as appropriate), any records and accounts requested by it.

6.15 Centralized Functions. [_____] is a global financial organization that provides services to clients through its affiliates and subsidiaries in multiple jurisdictions (the “[_____] Group”). The [_____] Group may centralize functions, including audit, accounting, risk, legal, compliance, sales, administration, product communication, relationship management, storage, compilation and analysis of customer-related data, and other functions (the “**Centralized Functions**”) in one or more affiliates, subsidiaries and third party service providers. Solely in connection with the Centralized Functions, (i) SF1 consents to the disclosure of, and authorizes the Trustee to disclose, information regarding SF1 and its accounts (“**Customer-Related Data**”) to the [_____] Group and to its third party service providers who are subject to confidentiality obligations with respect to such information and (ii) the Trustee may store the names and business addresses of SF1’s employees on the systems or in the records of the [_____] Group or its service providers. In addition, the [_____] Group may aggregate Customer-Related Data with other data collected and/or calculated by the [_____] Group, and the [_____] Group

will own all such aggregated data, provided that the [_____] Group shall not distribute the aggregated data in a format that identifies Customer-Related Data with SF1. SF1 is authorized to consent to the foregoing and confirms that the disclosure to and storage by the [_____] Group of such information does not violate any relevant data protection legislation. In addition, the Trustee may disclose Customer-Related Data as required by Applicable Law or at the request of any Governmental Authority.

6.16 Standard of Care/Limitation on Liability. In performing its duties under this Agreement, the Trustee shall exercise the same care and diligence that it would devote to its own property in like circumstances.

- (a) The Trustee shall not be liable for Losses except to the extent that such Losses are a direct result of the Trustee's negligence or willful misconduct.
- (b) The Trustee shall not be liable to SF1, or the Trust for indirect, consequential or special damages arising in connection with this Agreement even if the Trustee has been advised of the possibility of such damages.
- (c) The Trustee shall not be responsible for the title, validity or genuineness of any Securities or evidence of title thereto received by it or delivered by it pursuant to this Agreement or for Securities held hereunder being freely transferable or deliverable without encumbrance in any relevant market;
- (d) The Trustee shall not be responsible for the failure to receive payment of, or the late payment of, income or other payments due to the ISFSI Decommissioning Trust;
- (e) The Trustee shall have no duty to take any action to collect any amount payable on Securities in default or if payment is refused after due demand and presentment;
- (f) The Trustee may obtain the advice of counsel and shall be fully protected with respect to anything done or omitted by it in good faith in conformity with such advice;
- (g) The Trustee shall have no duty or responsibility to inquire into, make recommendations, supervise, or determine the suitability of any transactions affecting the ISFSI Decommissioning Trust and shall have no liability with respect to SF1's or an Authorized Representative's decision to invest in Securities or to hold cash in any currency;
- (h) The Trustee shall have no responsibility if Applicable Law or the rules or procedures imposed by Depositories, exchange controls, or asset freezes at any time prohibit or impose burdens or costs on the transfer of Securities or cash to, by or for the ISFSI Decommissioning Trust; and the Trustee shall have no liability for any Losses arising from the insolvency of any Person, including but not limited to a Subcustodian, Depository, broker, bank, and a counterparty to the settlement of a transaction or to a foreign exchange transaction, except as provided in Sections 6.08 and 6.10 above.
- (i) All credits to the ISFSI Decommissioning Trust of the proceeds of sales and redemptions of property and of anticipated income from property shall be conditional upon receipt by the Trustee of final payment and may be reversed to the extent final payment is not

received. In the event that the Trustee in its discretion advances funds to the ISFSI Decommissioning Trust to facilitate the settlement of any transaction, the ISFSI Decommissioning Trust shall, immediately upon demand, reimburse the Trustee for such amounts plus any interest thereon, and to secure such obligations as well as any other obligations of the ISFSI Decommissioning Trust hereunder, SF1, to the extent permitted by Applicable Law, hereby grants a continuing security interest in and pledges to the Trustee the property in the ISFSI Decommissioning Trust and any funds so credited.

(j) The provisions of this Section 6.16 and the right of the Trustee to claim the benefit thereof shall survive any termination of this Agreement and any resignation or removal of the Trustee.

6.17 Indemnification. SF1 shall indemnify and hold harmless the Trustee from and against all losses, costs expenses, damages, liabilities and claims, including reasonable counsel fees and expenses in third party suits and in a successful defense of claims asserted by SF1, relating to or arising out of the performance of the Trustee's obligations under this Agreement, except to the extent resulting from the Trustee's negligence or willful misconduct. This indemnification shall survive the termination of this Agreement.

6.18 Force Majeure. Notwithstanding anything in this Agreement to the contrary, the Trustee shall not be responsible or liable for any failure to perform under this Agreement or for any Losses to the ISFSI Decommissioning Trust resulting from any event beyond the reasonable control of the Trustee.

6.19 Foreign Exchange. Any foreign exchange transaction effected by the Trustee in connection with this Agreement may be entered with the Trustee or a [_____] Affiliate acting as a principal or otherwise through customary channels. SF1, the Investment Manager or other fiduciary may issue standing Written Instructions with respect to foreign exchange transactions, but the Trustee may establish rules or limitations concerning any foreign exchange facility made available to the ISFSI Decommissioning Trust. With respect to foreign exchange transactions done through [_____] [Global Markets FX Desk], it is acting as a principal counterparty on its own behalf and is not acting as a fiduciary or agent for, or in connection with, SF1, the Trust, or an Investment Manager.

6.20 Merger of Trustee. Any corporation or other legal entity into which the Trustee may be merged or with which it may be consolidated, or any corporation or other legal entity resulting from any merger or consolidation to which the Trustee shall be a party, or any corporation or other legal entity to which the corporate trust functions of the Trustee may be transferred, shall be the successor Trustee under this Agreement without the necessity of executing or filing any additional acceptance of this Agreement or the performance of any further act on the part of any other parties hereto.

6.21 Required Disclosure. With respect to Securities that are registered under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*") or that are issued by an issuer registered under the Investment Company Act of 1940, as amended, Section 14(b) of the Exchange Act and Rule 14b-2 promulgated thereunder require the Trustee to disclose to issuers of such Securities, upon their request, the name, address and securities position of the Trustee's

clients who are “beneficial owners” (as defined in the Exchange Act) of the issuer’s Securities, unless the beneficial owner objects to such disclosure. The Exchange Act defines a “beneficial owner” as any person who has or shares the power to vote a security (pursuant to an agreement or otherwise) or who directs the voting of a security. SF1 has designated on the signature page hereof, whether: (1) as beneficial owner, it objects to the disclosure of its name, address and securities position to any U.S. issuer that requests such information pursuant to the Exchange Act for the specific purpose of direct communications between such issuer and SF1; or (2) the Trustee shall contact the Investment Manager with respect to relevant Securities to make the decision whether it objects to the disclosure of the beneficial owner’s name, address and securities position to any U.S. issuer that requests such information pursuant to the Exchange Act.

With respect to Securities issued outside the United States, the Trustee shall disclose information required by any Depository, the laws or regulations of the relevant jurisdiction, rules of the relevant stock exchange or organizational documents of an issuer. The Trustee is also authorized to supply any information regarding the ISFSI Decommissioning Trust that is required by any Applicable Law now or hereafter in effect. SF1 agrees to supply the Trustee with any required information if it is not otherwise reasonably available to the Trustee.

6.22 Designation and Qualification of Successor Trustee(s).

(a) At any time during the term of this ISFSI Decommissioning Trust, SF1 shall have the right to remove the Trustee (at SF1’s sole discretion) acting hereunder and appoint another qualified entity as a successor Trustee upon thirty (30) days’ notice in writing to the Trustee, or upon such shorter notice as may be acceptable to the Trustee. In the event that the bank or trust company serving as Trustee or successor Trustee shall: (i) become insolvent or admit in writing its insolvency; (ii) be unable or admit in writing its inability to pay its debts as such debts mature; (iii) make a general assignment for the benefit of creditors; (iv) have an involuntary petition in bankruptcy filed against it; (v) commence a case under or otherwise seek to take advantage of any bankruptcy, reorganization, insolvency, readjustment of debt, dissolution or liquidation law, statute, or proceeding or (vi) resign, SF1 shall appoint a successor Trustee as soon as practicable. In the event of any such removal or resignation, the Trustee or successor Trustee shall have the right to have its accounts finalized as provided in Section 6.14. Any successor to SF1, as provided herein, shall have the same right to remove and to appoint any Trustee or successor Trustee.

(b) Any successor Trustee shall be a bank or trust company incorporated and doing business within the United States and having a combined capital and surplus of at least two hundred fifty million dollars (\$250,000,000), if there be such an institution willing, able and legally qualified to perform the duties of Trustee hereunder upon reasonable or customary terms.

(c) Any successor Trustee shall qualify by a duly acknowledged acceptance of this Agreement, delivered to SF1. Upon acceptance of such appointment by the successor Trustee, the Trustee shall assign, transfer and pay over to such successor Trustee the assets then constituting the ISFSI Decommissioning Trust. Any successor Trustee shall have all the rights, powers, duties and obligations herein granted to the original Trustee.

6.23 Exoneration from Bond. No bond or other security shall be exacted or required of any Trustee or successor Trustee appointed pursuant to this Agreement.

6.24 Resignation. The Trustee or any successor Trustee hereof may resign and be relieved as Trustee at any time without prior application to or approval by or order of any court by a duly acknowledged instrument, which shall be delivered to SF1 by the Trustee no less than thirty (30) days prior to the effective date of the Trustee's resignation or upon such shorter notice as may be acceptable to SF1. If for any reason SF1 cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee and the cost of making such application shall be borne by SF1.

6.25 Transactions With Third Parties. No person or organization dealing with the Trustee hereunder shall be required to inquire into or to investigate its authority for entering into any transaction or to see to the application of the proceeds of any such transaction.

6.26 Tax, Returns and Other Reports. SF1 shall prepare and file any federal, state and local income or franchise tax returns and other reports (including estimated tax returns and information returns) as may be required from time to time with respect to the ISFSI Decommissioning Trust, and the Trustee agrees to provide SF1 in a timely manner with any information which is necessary to such filings, if any, which information is not in the possession of SF1. The Trustee shall prepare and submit to SF1 in a timely manner all information requested by SF1 regarding the amounts required to be included in SF1's federal, state and local income tax return and other reports (including estimated tax returns and information returns). Any interest or penalty charges assessed against the ISFSI Decommissioning Trust pursuant to Chapters 67 or 68 of the Internal Revenue Code of 1986, as amended, or pursuant to any similar state or local provisions, as a result of the Trustee's failure to comply with this Section 6.26 shall be borne by SF1 unless caused by the Trustee's negligence or willful misconduct, in which case such interest or penalty charges shall be borne by the Trustee and not SF1. The Trustee agrees to notify SF1 in writing within ten (10) days of the commencement of the audit of the ISFSI Decommissioning Trust's federal, state or local tax returns, and to participate with SF1, on behalf of the ISFSI Decommissioning Trust in such audits and related inquiries. The Trustee further agrees to provide SF1 with any additional information in its possession regarding the ISFSI Decommissioning Trust which may be requested by SF1 to be furnished in an audit of SF1's federal, state or local tax returns.

ARTICLE 7

POWERS OF THE TRUSTEE

7.01 General Powers. In the administration of the ISFSI Decommissioning Trust, the Trustee shall have and exercise the following powers and authority at the direction of an Investment Manager where such powers and authority relate to a separate Investment Account established for an Investment Manager, and in its sole discretion where such powers and authority relate to investments made by the Trustee in its capacity as an Investment Manager, if and only to the extent the Trustee has been appointed and has accepted such appointment as an Investment Manager in accordance with Section 8.01:

(a) to purchase, receive or subscribe for any Securities or other property and to retain in trust such Securities or other property;

(b) to sell, exchange, convey, transfer, lend, or otherwise dispose of any property held in the ISFSI Decommissioning Trust and to make any sale by private contract or public auction; and no person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity, expediency or propriety of any such sale or other disposition;

(c) to forward to the Authorized Representative designated by SF1 proxies or ballots for any Securities held in the ISFSI Decommissioning Trust in a form to enable the Authorized Representative to effect the voting of proxies, excluding bankruptcy matters to which the Trustee's duties are set forth in paragraph (e) below;

(d) to submit or cause to be submitted to SF1 or the Investment Manager, as designated by SF1, information received by the Trustee, or summaries of information, regarding ownership rights pertaining to property held in the ISFSI Decommissioning Trust, in accordance with the Trustee's practices, excluding bankruptcy matters to which the Trustee's duties are set forth in paragraph (e) below;

(e) to forward to the Authorized Representative designated by SF1 an initial notice of bankruptcy cases relating to Securities held in the ISFSI Decommissioning Trust and a notice of any required action related to such bankruptcy cases as may be actually received by the Trustee. No further action or notification related to the bankruptcy case shall be required absent the specific agreement of the parties hereto;

(f) to exercise any rights appurtenant to any such Securities for the conversion thereof into other Securities, or to exercise rights or options to subscribe for or purchase additional Securities, and to make any and all necessary payments with respect to any such conversion or exercise, as well as to write options with respect to such Securities and to enter into any transactions in other forms of options with respect to any options which the ISFSI Decommissioning Trust has outstanding at any time;

(g) to join in, dissent from or oppose the reorganization, recapitalization, consolidation, sale or merger of corporations or properties of which the ISFSI Decommissioning Trust may hold Securities or in which it may be interested, upon such terms and conditions as deemed wise, to pay any expenses, assessments or subscriptions in connection therewith, and to accept any Securities or other property, whether or not trustees would be authorized to invest in such Securities or other property, which may be issued upon any such reorganization, recapitalization, consolidation, sale or merger and thereafter to hold the same, without any duty to sell;

(h) to purchase, enter, sell, hold, and generally deal in any manner in and with contracts for the immediate or future delivery of financial instruments of any issuer or of any other property and in foreign exchange or foreign exchange contracts; to grant, purchase, sell, exercise, permit to expire, permit to be held in escrow, and otherwise to acquire, dispose of, hold and generally deal in any manner with and in all forms of options in any combination.

Settlements of transactions may be effected in trading and processing practices customary in the jurisdiction or market where the transaction occurs. SF1 acknowledges that this may, in certain circumstances, require the delivery of cash or Securities (or other property) without the concurrent receipt of Securities (or other property) or cash and, in such circumstances, SF1 shall have sole responsibility for non-receipt of payment (or late payment) by the counterparty.

7.02 Specific Powers of the Trustee. The Trustee shall have the following powers and authority, to be exercised in its sole discretion with respect to the ISFSI Decommissioning Trust:

(a) to employ such attorneys, accountants, custodians, Subcustodians, engineers, contractors, clerks and agents as may be reasonably necessary to carry out the purposes of the ISFSI Decommissioning Trust, the reasonable cost of which shall be borne by SF1, and to delegate to other persons such ministerial powers and duties as the Trustee may deem advisable;

(b) to cause any investment, either in whole or in part, in the ISFSI Decommissioning Trust to be registered in, or transferred into, the Trustee's name or the names of a nominee or nominees, including but not limited to that of the Trustee or an affiliate of the Trustee, a Depository, or to retain any such investment unregistered or in a form permitting transfer by delivery, provided that the books and records of the Trustee shall at all times show that such investments are a part of the ISFSI Decommissioning Trust; and to cause any such investment, or the evidence thereof, to be held by the Trustee, in a Depository, or by any other entity or in any other manner permitted by Applicable Law;

(c) to make, execute and deliver, as Trustee, any and all deeds, leases, mortgages, conveyances, waivers, releases or other instruments in writing necessary or desirable for the accomplishment of any of the foregoing powers;

(d) to defend against or participate in any legal actions involving the ISFSI Decommissioning Trust or the Trustee in its capacity stated herein, in the manner and to the extent it deems advisable;

(e) to form corporations and to create trusts, to hold title to any Security or other property, to enter into agreements creating partnerships or joint ventures for any purpose or purposes determined by the Trustee to be in the best interests of the ISFSI Decommissioning Trust;

(f) to establish and maintain such separate Investment Accounts in accordance with the Authorized Instructions of SF1 as SF1 deems necessary for the proper administration of the ISFSI Decommissioning Trust, or as determined to be necessary by the Trustee;

(g) to hold uninvested cash in its commercial bank or that of an affiliate, as it shall deem reasonable or necessary; and

(h) to generally take all action, whether or not expressly authorized, which the Trustee may deem necessary or desirable for the protection of the ISFSI Decommissioning Trust.

Notwithstanding anything else in this Agreement to the contrary, including, without limitation, any specific or general power granted to the Trustee and to the Investment Managers, including the power to invest in real property, no portion of the ISFSI Decommissioning Trust shall be invested in real estate (except for investments tied to market indexes or other non-nuclear sector common trust funds or mutual funds). For this purpose “real estate” includes, but is not limited to, real property, leaseholds or mineral interests.

The powers described in this Section 7.02 may be exercised by the Trustee with or without instructions from SF1 or an Authorized Representative, but where the Trustee acts on Authorized Instructions, the Trustee shall be fully protected as described in Section 8.01(b). Without limiting the generality of the foregoing, the Trustee shall not be liable for the acts or omissions of any person appointed under paragraph (a) of Section 7.02 pursuant to Authorized Instructions.

ARTICLE 8

INVESTMENTS

8.01 General Investment Powers.

(a) SF1 may appoint one or more investment managers, which may, subject to the Trustee’s written consent, include the Trustee, to direct the investment of all or part of the assets of the ISFSI Decommissioning Trust (an “*Investment Manager*”). SF1 shall also have the right to remove such Investment Manager(s). SF1, its affiliates, and its subsidiaries are prohibited from being engaged as investment manager for the funds or from giving day-to-day management direction of the funds’ investments or direction on individual investments by the funds, except in the case of passive fund management of trust funds where management is limited to investments tracking market indices.

(b) Whenever such appointment is made, SF1 shall provide written notice of such appointment to the Trustee, shall specify the portion of the ISFSI Decommissioning Trust with respect to which the Investment Manager has been designated, and shall instruct the Trustee to segregate into specified accounts those assets designated for management by each Investment Manager (an “*Investment Account*”). To the extent that assets are segregated into an Investment Account, the Trustee shall be released and relieved of all investment duties, responsibilities and liabilities customarily or statutorily incident to a trustee with respect to the assets in each such Investment Account, and as to such Investment Account the Trustee shall act as custodian.

(c) SF1 shall cause the Investment Manager to certify in writing to the Trustee the identity of the person or persons authorized to give instructions or directions to the Trustee on behalf of such Investment Manager and to provide specimen signatures of such persons. The Trustee may continue to rely upon and comply with all such certifications unless and until otherwise notified in writing by SF1 or an Investment Manager, as the case may be.

8.02 Direction by Investment Manager(s).

(a) An Investment Manager designated by SF1 to manage an Investment Account shall have authority to manage and to direct the acquisition and disposition of the assets of the ISFSI Decommissioning Trust, or a portion thereof, as the case may be, and the Trustee shall exercise the powers set forth in this Article 8 only when, if, and in the manner directed by SF1 in writing, and shall not be under any obligation to invest or otherwise manage any assets in the Investment Account. An Investment Manager shall have the power and authority, exercisable in its sole discretion at any time, and from time to time, to issue and place orders for the purchase or sale of portfolio securities directly with qualified brokers or dealers. The Trustee, upon proper notification from an Investment Manager, shall settle the transactions in accordance with the appropriate trading authorizations. SF1 shall cause each Investment Manager to promptly provide to the Trustee written notification of each transaction and shall cause each such Investment Manager to confirm in writing (or cause the broker or dealer to confirm in writing) the settlement of each such transaction to the Trustee and to SF1. Such notification shall be proper authority for the Trustee to pay for portfolio securities purchased against receipt thereof and to deliver portfolio securities sold against payment therefor, as the case may be. All directions to the Trustee by an Investment Manager shall be in writing and shall be signed by a person who has been certified by such Investment Manager pursuant to Section 8.01 as authorized to give instructions or directions to the Trustee.

(b) Should an Investment Manager at any time elect to place security transactions directly with a broker or a dealer, the Trustee shall not recognize such transaction unless and until it has received instructions or confirmation of such fact from an Investment Manager. Should an Investment Manager direct the Trustee to utilize the services of any person with regard to the assets under its management or control, such instructions shall be in writing and shall specifically set forth the actions to be taken by the Trustee as to such services. In the event that an Investment Manager places security transactions directly or directs the utilization of a service, such Investment Manager shall be solely responsible for the acts of such persons. The sole duty of the Trustee as to such transactions shall be incident to its duties as custodian.

(c) The authority of an Investment Manager and the terms and conditions of the appointment and the retention of an Investment Manager shall be the sole responsibility of SF1, and the Trustee shall not be deemed to be a party or to have any obligations under any agreement with an Investment Manager. Any duty of supervision or review of the acts, omissions or overall performance of each Investment Manager shall be the exclusive responsibility of SF1, and the Trustee shall have no duty to review any securities or other assets purchased by an Investment Manager, or to make suggestions to an Investment Manager or to SF1 with respect to the exercise or non-exercise of any power by an Investment Manager.

8.03 Prohibition Against Nuclear Sector Investments. Any Investment Manager appointed pursuant to Section 8.01(a) is prohibited from investing the funds in securities or other obligations of SF1, its affiliates, or its successors or assigns, or any entity owning one or more nuclear power plants, except for investments tied to market indexes or other non-nuclear-sector mutual funds.

ARTICLE 9

REGULATORY MATTERS

9.01 USA PATRIOT Act. Section 326 of the U.S. Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (including its implementing regulations) requires the Trustee to implement a customer identification program pursuant to which the Trustee must obtain certain information from SF1 in order to verify SF1's identity prior to establishing an Account. Accordingly, prior to establishing an Account, SF1 will be required to provide the Trustee with certain information, including SF1's name, physical address, tax identification number and other pertinent identifying information, to enable the Trustee to verify SF1's identity. SF1 acknowledges that the Trustee cannot establish an Account unless and until the Trustee has successfully performed such verification.

9.02 Sanctions

(a) Throughout the term of this Agreement, SF1: (i) will have in place and will implement policies and procedures designed to prevent violations of Sanctions, including measures to accomplish effective and timely scanning of all relevant data with respect to incoming or outgoing assets or transactions relating to this Agreement; (ii) will ensure that neither SF1 nor any of its Affiliates is an individual or entity that is, or is owned or controlled by an individual or entity that is: (A) the target of Sanctions or (B) located, organized or resident in a country or territory that is, or whose government is, the target of Sanctions and (iii) will not, directly or indirectly, use the Fund in any manner that would result in a violation by SF1 or the Trustee of Sanctions.

(b) SF1 will promptly provide to the Trustee such information as the Trustee reasonably requests in connection with the matters referenced in this Section 9.02, including information regarding the ISFSI Decommissioning Trust, the assets and the source thereof, and the identity of any individual or entity having or claiming an interest therein. The Trustee may decline to act or provide services in respect of the ISFSI Decommissioning Trust, and take such other actions as it, in its reasonable discretion, deems necessary or advisable, in connection with the matters referenced in this Section 9.02. If the Trustee declines to act or provide services as provided in the preceding sentence, except as otherwise prohibited by Applicable Law or official request, the Trustee will inform SF1 as soon as reasonably practicable.

ARTICLE 10

MISCELLANEOUS

10.01 Headings. The section headings set forth in this Agreement and the Table of Contents are inserted for convenience of reference only and shall be disregarded in the construction or interpretation of any of the provisions of this Agreement.

10.02 Interpretation. When a reference is made in this Agreement to an Article, Section, Schedule or Exhibit, such reference shall be to an Article or a Section of, or Schedule or Exhibit to, this Agreement unless otherwise indicated. Any word contained in the text of this Agreement shall be read as the singular or plural and as the masculine, feminine or neuter as may be applicable or permissible in the particular context. Unless otherwise specifically stated, the word “person” shall be taken to mean and include an individual, partnership, association, trust, company or corporation.

10.03 Severability of Provisions. If any provision at this Agreement or its application to any person or entity or in any circumstances shall be invalid and unenforceable, the application of such provision to persons and in circumstances other than those as to which it is invalid or unenforceable and the other provisions of this Agreement, shall not be affected by such invalidity or unenforceability.

10.04 Delivery of Notices Under Agreement. Any notice, direction or instruction required by this Agreement to be given to SF1 or the Trustee shall be deemed to have been properly given when delivered by electronic mail acknowledged by return email from the recipient, or by postage prepaid registered or certified mail, to the person to be notified as set forth below:

If to SF1:

ADP SF1, LLC
[ADDRESS]
[EMAIL]
Attention: General Counsel

If to the Trustee:

[TRUSTEE]
[ADDRESS]

[EMAIL]
Attention: []

SF1 or the Trustee may change the above address by delivering notice thereof in writing to the other party.

10.05 Alterations and Amendments.

(a) The Trustee and SF1 understand and agree that modifications or amendments may be required to this Agreement, and to the exhibits hereto, from time to time to effectuate the purpose of the ISFSI Decommissioning Trust and comply with Applicable Law, any Order, any changes in tax laws, Regulations or rulings (whether published or private) of the Internal Revenue Service and any similar state taxing authority, and any other changes to the laws applicable to SF1 and the CR-3 Facility. Subject to Section 10.05(d) below, this Agreement, and the exhibits hereto, may be altered or amended to the extent necessary or advisable to

effectuate such purposes or to comply with such Applicable Law, Order or changes, and to effectuate the disbursement provisions of Article 4.

(b) Otherwise, this Agreement, and the exhibits hereto, may be amended, modified or altered for any purpose requested by SF1 so long as such amendment, modification or alteration does not affect the use of the assets of the ISFSI Decommissioning Trust to pay SF1 the funds pursuant to the Decommissioning Agreement.

(c) Any alteration or amendment to, or modification of, this Agreement or an exhibit hereto must be in writing and signed by SF1 and the Trustee. The Trustee shall execute any such alteration, modification or amendment required to be executed by it and shall accept and be governed by any amended, modified or altered schedule delivered to it but shall have no duty to inquire or make any investigation as to whether any amendment, modification or alteration is consistent with this Section 10.05.

(d) This Agreement may not be amended in any material respect without thirty (30) working days' prior written notification to the NMSS Director. The Agreement may not be amended if the Trustee receives prior written notice of objection from the NMSS Director within the notice period.

10.06 Successors and Assigns. Subject to the provisions of Sections 2.06 and 6.01, this Agreement shall be binding upon and inure to the benefit of SF1 and the Trustee and their respective successors, assigns, personal representatives, executors and heirs.

10.07 Governing Law.

(a) This Agreement, the ISFSI Decommissioning Trust and all questions pertaining to their validity, construction and administration shall be interpreted, construed and determined in accordance with the internal substantive laws (and not the choice of law rules) of the Commonwealth of Pennsylvania to the extent not superseded by federal law. All actions and proceedings brought by the Trustee relating to or arising from, directly or indirectly, this Agreement may be litigated in courts located in the Commonwealth of Pennsylvania, and SF1 hereby submits to the jurisdiction of such courts. SF1 and the Trustee hereby waive the right to a trial by jury in any action or proceeding brought hereunder.

(b) To the extent that, in any jurisdiction, SF1 has or hereafter may acquire, or is or hereafter may be entitled to claim, for itself or its assets, immunity (sovereign or otherwise) from suit, execution, attachment (before or after judgment) or any other legal process brought by or on behalf of the Trustee and arising with respect to this ISFSI Decommissioning Trust or the Trustee's functions hereunder, SF1 irrevocably agrees not to claim, and hereby waives, such immunity.

10.08 Accounting Year. The ISFSI Decommissioning Trust shall operate on an accounting year which coincides with the calendar year, January 1 through December 31.

10.09 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

10.10 Decommissioning Liability. Nothing in this Agreement or in any amendment is intended to impose any responsibility on the Trustee for overseeing or paying the Decommissioning Costs other than, in the case of the Trustee, the disbursement of funds in accordance with Article 4.

10.11 Limitation on Trustee Liability. Notwithstanding anything in this Agreement to the contrary, the Trustee shall not be responsible or liable for its failure to perform under this Agreement or for any losses to the ISFSI Decommissioning Trust resulting from any event beyond the reasonable control of the Trustee, its agents or Subcustodians, including but not limited to nationalization, strikes, expropriation, devaluation, seizure or similar action by any Governmental Authority, de facto or de jure; or enactment, promulgation, imposition or enforcement by any such Governmental Authority of currency restrictions, exchange controls, levels or other charges affecting the ISFSI Decommissioning Trust's property; or the breakdown, failure or malfunction of any utilities or telecommunications systems; or any order or regulation of any banking or securities industry including changes in the market rules and market conditions affecting the execution or settlement of transactions; or acts of war, terrorism, insurrection or revolution; or acts of God; or any other similar event. This Section 10.11 shall survive the termination of this Agreement.

10.12 Entire Agreement. This Agreement constitutes the entire agreement between SF1 and the Trustee and supersedes any prior understandings, agreements or representations by or between the parties, written or oral, to the extent related in any manner to the subject matter hereof.

10.13 Representation. SF1 and the Trustee each hereby represent and warrant to the other that it has full authority to enter into this Agreement upon the terms and conditions hereof and that the individual executing this Agreement on its behalf has the requisite authority to bind it to this Agreement.

[SIGNATURE PAGE FOLLOWS]

ADP SF1, LLC

By: _____

Name: _____

Title: _____

[TRUSTEE]

By: _____

Name: _____

Title: _____

EXHIBIT A

CERTIFICATE FOR DECOMMISSIONING COSTS NO. _____

[Trustee], as Trustee
[Trustee Address]

This Certificate is submitted pursuant to Section 4.01 of the CR-3 ISFSI Decommissioning Trust (the "Agreement"), dated _____, between [Trustee] (the "Trustee") and ADP SF1, LLC (the "Company"). All capitalized terms used in this Certificate and not otherwise defined herein shall have the meanings assigned to such terms in the Agreement. In your capacity as Trustee, you are hereby authorized and requested to disburse to [payee] the amount of \$ _____ from CR-3 ISFSI Decommissioning Trust for the payment of the Decommissioning Costs which have been incurred, as indicated in Schedule A hereto.

With respect to such Decommissioning Costs, the Company hereby certifies as follows:

1. The amount to be disbursed pursuant to this Certificate shall be solely used for the purpose of paying the Decommissioning Costs in the amounts set forth on Schedule A hereto.
2. None of the Decommissioning Costs identified in Schedule A hereto have previously been made the basis of any certificate pursuant to Section 4.01 of the Agreement.
3. Any necessary authorizations of the NRC or any corresponding governmental authority having jurisdiction over the decommissioning of the Unit have been obtained.

Accordingly, request is hereby made that the Trustee provide for the withdrawal of \$ _____ in order to permit payment of such sum to be made to the Payee(s). Trustee is further requested to disburse such sum, once withdrawn, directly to such Payee(s) in the following manner: [CHECK/WIRE TRANSFER/ _____] on or before _____, 20____.

IN WITNESS WHEREOF, the undersigned have executed this Certificate in the capacity shown below as of _____, _____.

ADP SF1, LLC

By: _____
Name:
Authorized Representative

Schedule A

[Description of Decommissioning Costs]



Accelerated Nuclear Decommissioning Project

Crystal River Unit Three Nuclear Generating Plant

Project Specification

Rev. 0

March 11, 2019

Project Location

Duke Energy – Crystal River Three

15760 W Power Line St,

Crystal River, FL 34428

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1. CRYSTAL RIVER UNIT 3 NUCLEAR DECOMMISSIONING PROJECT OVERVIEW

1.1. Introduction

This document describes the D&D work specification to be performed by Contractor to remove the CR-3 Facility from service, reduce residual radioactivity to levels permitting unrestricted release, restore the site, perform this work safely, and complete the work in a cost-effective manner.

Additionally, Contractor shall manage the ISFSI until a spent nuclear fuel and HLW repository or a DOE or other interim storage facility is made available and the Spent Nuclear Fuel and GTCC is removed from the site.

2. NUCLEAR DECOMMISSIONING PROJECT OBJECTIVES AND SITE DESCRIPTION

2.1. Project Objectives

The D&D project objectives are for Contractor to:

- remove structures, systems, and components (SSC) from the facility
- pack and ship radioactive waste off-site
- reduce residual radioactivity to levels permitting unrestricted release of the site
- pack and ship hazardous waste off-site
- restore the site
- perform this work safely
- complete the work in a cost-effective manner
- comply with all applicable Federal, State, and Local laws, statutes, rules and regulations, zoning, guidelines, interpretations, acts, requirements, permits, codes and standards, and licenses

Contractor is to refer to Table 1.0 for the Division of Responsibilities (DOR).

Table 1.0 DOR		
Task/Area	Contractor	DEF
Pre-closure Transition Management	✓	✓
Project Management	✓	
Program Management		
• Procedures	✓	
• Transition Plans	✓	
• Health & Safety Program	✓	
• Management & Maintenance of Facilities	✓	
• ISFSI FFD Program	✓	
• Training Program	✓	
• Industrial Security (Non-ISFSI)	✓	
• Radiation Protection Program	✓	
• Fire Protection Program	✓	
• Configuration Management	✓	
• Chemistry & Environmental Programs	✓	
• Waste Management Program	✓	
• 10 CFR Part 37 Compliance	✓	
License Termination (Amendment) to ISFSI Only	✓	
ISFSI D&D, License Termination, and site restoration	✓	
Site Labor Management	✓	
System Decontamination	✓	
Site Characterization	✓	
Large Component Removal	✓	
Commodity Removal	✓	
Waste Packaging, Shipping, Disposal	✓	
Licensing	✓	
Health Physics Coverage	✓	
Station Administration	✓	
Procurement	✓	
ISFSI Management, Engineering, Security and Emergency Planning	✓	
End State Status Surveys	✓	
Asset Recovery	✓	
Repowering/System Recovery	✓	
Site Restoration	✓	
NDT Control		✓
CREC Coordination	✓	

Any responsibility not specifically attributed to Duke Energy Florida, LLC (Company or DEF) is the sole responsibility of Contractor.

2.2. Description of CR3 Operating Facilities

DEF is the owner and operator of the Crystal River Nuclear Unit 3 (CR3). The Crystal River site (Owner Controlled Area (OCA)) consists of 4,738 acres owned and controlled by DEF including a $\frac{1}{4}$ mile wide access strip provided for railroad, road, and transmission line right-of-way extending from the plant to U.S. Highway 19. There are no public access roads to areas adjacent to the plant site except at the plant access road. The north and south site boundaries are bordered by woods and swamps and are generally inaccessible. Directly west of the plant is the Gulf of Mexico [Ref Appendix A.2]. Plant site layout is provided in Reference Appendix A.3. Detailed Plant Descriptions can be found in Reference Appendix C.2 and as supplemented by plant drawings located in the CR3 Document SharePoint site.

On January 22, 2019 in a letter to the NRC, DEF requested approval to remove the non-impacted survey units (3854 acres) from its Part 50 license in accordance with 10 CFR 50.83(b), "Release of part of a power reactor facility or site for unrestricted use". This will result in the CR3 OCA being reduced to 884 acres. Approval of this request is expected prior to the Closing. A drawing of the CR3 OCA as it will be reduced upon NRC approval can be found in Reference Appendix A.11.

CR3 is situated in the DEF Crystal River Energy Complex (CREC), which includes four (4) coal generating units: CR1 & 2 adjacent to and west of CR3; and CR4 & 5 located north of CR3. Also in the CREC are the two (2) new Citrus County Combined Cycle (CCCC) plants, located north east of CR3 [Ref. Appendix A.3]. The CCCC plants came on-line by the end of 2018. CCCC and CR4 & 5 are expected to be in-service with limited impact to CR3 D&D anticipated at this time, outages notwithstanding. As planned, CR1 & 2 are off-line in conjunction with the CCCC units going on-line with decommissioning commencing sometime after 2019.

2.2.1. Nuclear License Condition

The 10 CFR Part 50 license for CR3 no longer authorizes operation of the reactor or placement or retention of fuel in the reactor vessel. Detailed description of license requirements and commitments can be found in Reference Appendix C.2, *Defueled Safety Analysis Report*, and Reference Appendix C.4, *Defueled Tech Specs*.

CR3 has an Independent Spent Fuel Storage Installation (ISFSI) located on the east berm of the plant. The ISFSI has the capacity for 40 Dry Shielded Canisters (DSCs), each holding up to 32 fuel assemblies. The ISFSI consists of the NUHOMS Reinforced Concrete Horizontal Storage Modules, each containing one 32PTH1-TYPE 2W DSC, manufactured for CR3 by Areva TransNuclear Corporation, under Certificate of Compliance 1004, Amendment Number 14. The 10 CFR 72.212 Report provides additional details for the ISFSI complex and dry cask storage systems. This report documents how the CR3 site meets Part 72 requirements and has been issued as procedure ISFS-0212 [Ref. Appendix C.3].

2.2.2. Historical Site Assessment

The Historical Site Assessment (HSA) documents a comprehensive investigation that identifies and evaluates historical information pertaining to events that may have resulted in contamination during the operating history of CR3, for the purpose of assisting in planning for the decommissioning of the power plant. The CR3 HSA and site characterization information can be found in Appendix B, *HP and Environmental* folder in the CR3 Document Library SharePoint site.

2.2.3. Utilities and Transportation Assets and Access

Available utilities to and from the CR3 site are shown on Appendix A.3, and includes:

	CR3 Power Block	ISFSI Facility
Domestic Water (potable) water	Currently from CR1 & 2, assume not available, however, limited untreated well water may be available with contractor performed modification	Currently from CR1 & 2, assume from another source at start of D&D
Demin Water	Currently from CR1 & 2, assume not available, however, possible crosstie to CR4 & 5 may be available with contractor performed modification	N/A
Sewage	Currently to CR1 & 2, assume not available	Capacity limited to SOC facility only, and tied to CR4 & 5
Electrical Power	12 kV and maximum load of 5 mVA from A301 line	12 kV from A301 vi MTTR-15
Fire Service Water	Tank supply to fire header ring only, no installed makeup. See EC 407262 in Appendix F.	Capacity limited to SOC facility only from CR4 & 5
Telephone	Available	Dedicated DEF Line

Note: CR3 power block utilities are subject to change dependent of the status of CR1 & 2 decommissioning.

Available transportation modes to and from the CR3 site are shown on Appendix A.3, and include:

- Site access road – A wide, two-lane access road connects the CR3 site with U.S.19 approximately 5 miles east of the plant. No other access roads to the CR3 site are available.
- Railroad line – The railroad spur into Crystal River plant is nine miles long from the railroad company right-of-way to the plant site. Only cars consigned to the Crystal River plant are brought into the plant site over the spur. A siding branches off the main spur and ends approximately at the coal conveyor east of the CR3 site. Contractor coordination with coal deliveries and rail usage is required. There may be a potential change in the responsibility for maintenance of the railroad spur within DEF due to CR1 & 2 decommissioning.
- Barge access – Barge access via the intake canal is available.

2.2.4. Site Security and Access

CREC access is controlled at the Access Control Point (ACP) on the main plant access road; DEF manages this access authorization and will work with Contractor to provide necessary badging for all Contractor and subcontractor workers requiring site access.

Access to the CR3 site is controlled by the CR3 Radiation Protection organization for accountability and insurance purposes. DEF expects this responsibility will be transferred to Contractor.

Access to the ISFSI is controlled through the DEF Corporate Nuclear Protective Services organization and DEF expects this responsibility will transition to Contractor.

3. ACCELERATED DECOMMISSIONING PROJECT SPECIFICATION

3.1. Decommissioning End State

The final condition of CR3 at the time of the project completion (decommissioning end state) will be:

- All SSCs removed
- All system interties to other Crystal River Energy Complex (CREC) plants isolated and/or removed
- All designated buildings, structures, and pavement/asphalt removed
- Within the power block (all areas at berm elevation 119') entire area cleared to three (3) feet below grade level (defined as plant elevation of 119', i.e., the berm remains)
- Outside of the power block (all areas not at berm elevation 119') areas made permeable to existing grade
- Firing range structures removed and area remediated
- West settlement pond remediated, including influent and effluent piping, and filled to grade
- Site restored such that vegetation can grow providing erosion control
- NRC license terminated in accordance with 10 CFR 72.104 and 72.106.
- All affected environmental permitting amended/approved/closed as required
- Unrestricted release of the site (as defined as no more than 25 millirem per year plus ALARA)

3.2. Included SSCs and Facilities

Refer to Appendix A.3 for in-scope SSCs and facilities. All SSCs and buildings within the CR3 Protected Area are within scope. A detailed listing of the SSCs that are in scope for physical decontamination, dismantlement and removal are contained in Reference Appendix A.5. Additionally, Reference Appendix A.3 identifies those buildings and SSCs outside of the power block that are within the Site Restoration scope. Reference drawings contained in Appendix D provide additional details on the SSCs. Note: Site characterization for license termination includes all areas within the defined OCA.

3.3. Excluded SSCs and Facilities

In scope SSCs and facilities are specifically identified in Reference Appendix A.3, all other SSCs and facilities are excluded from scope. These include, but are not limited to:

- Switchyard
- Intake structure
- Discharge structure
- Intake and discharge canals
- Maintenance and Training Facility (MTF)

Note: Site characterization for license termination includes all areas within the defined OCA.

3.4. Expected Initial Condition of Plant

Although subject to change and contractor notification, the expected condition of CR3 at contract signing will be:

- Spent nuclear fuel assemblies stored in the ISFSI.
- The spent fuel pool drained and abandoned, and the fuel storage racks removed from the site.
- Reactor Vessel filled to the bottom of the cold legs with incores inserted and with the head in place (no Reactor Vessel studs installed).
- AC and DC power removed from the power block with the exception of the power system used in the hot shop, Seawater Room, and minimal plant lighting.
- 12 kV power available to the site; Contractor will be responsible to recover installed plant power distribution systems if required for Contractor's use.
- Permanent plant systems abandoned in place (other than a few select pieces of equipment that have been removed). Any unmaintained site equipment that Contractor decides to utilize; Contractor will need to recover for use.
- Note that the steam generators, hot legs, and MSRs were replaced in R16 and have not seen service; with the steam generators and hot legs being previously filled with RCS water and, as such, are contaminated.
- Installed plant cranes (i.e., spent fuel gantry crane, reactor building cranes, turbine building gantry crane, various outbuilding and smaller cranes) abandoned in place; must be recovered by Contractor if required for Contractor's use.
- Radiation monitors abandoned but recoverable; must be recovered by Contractor if required for Contractor's use.
- Offsite Power Transformer (OPT) isolated.
- All razor wire on fencing and within the protected area removed from the site.
- The cable bridge (raceway structure) including cables, conduits, and south block house, just east of the CR3 discharge, removed.
- Overhead 500 kV and 230 kV lines between CR3 and the switchyard removed.

DEF makes no warranty or guarantee as to the condition of any of the plant equipment or systems, or its suitability or recoverability for use by Contractor during decommissioning.

Containment Structural Status

CR3 performed modifications to stabilize the containment structure to ensure a safe industrial work site and a structure with long-term stability that supports safe handling of fuel and the capability of the Reactor Building Polar Crane. The following modifications were implemented [Ref. Appendix F]:

- EC 90986: Detensioning for Containment Stabilization
- EC 91284: Containment Concrete Stabilization
- EC 91276: Weather Protection

The following “cold and dark” modifications have been or are expected to be made to the plant prior to transfer to Contractor upon Closing [Ref. Appendix F]:

- EC 407262, The fire water supply for CR3 during the dormancy phase will consist of a single (existing) Fire Service (FS) water storage tank (FST-1A), connected to aboveground yard mains located on the North, South and West sides of the plant. Private hydrants located approximately every 200 feet in areas accessible by fire department apparatus will be provided on the yard mains in order to provide a gravity fed suction source for those pumpers. The EC to perform the physical work has not been issued. Note: installed abandoned fire detection and suppression systems are recoverable.
- EC 407371, CR3 Dormancy Ventilation - Ventilation of the Auxiliary Building will be accomplished with the addition of three upblast roof-mount exhaust fans mounted above the seawater room, in place of the existing seawater room plugs. Normal operation will consist of two fans in operation, with each fan providing 50% of the design ventilation rate. Air will also be drawn through the Reactor Building, from the Intermediate Building, to minimize stagnant air in those areas as well. Provisions will be provided to allow a radiation monitor to monitor the exhaust airflow, with system design providing sample points for radiation monitoring as desired.
- EC 407372, CR3 Dormancy Electrical - Install a limited power distribution system and associated facilities to support the SAFSTOR2 (Dormancy) Plan:
 - Building Ventilation Fans installed by EC 407371
 - Power for Radiation Monitor for the Building Ventilation Fans air stream
 - Health Physics facilities for access and exit from the CR3 Radiation Controlled Area
 - A switchable low-voltage power source for internal building lighting and portable equipment
 - Facilities for observation of specific internal building areas using a CCTV system
- EC 293487, Circulation Water (CW) Piping Intake and Discharge Closure - Close the Circulation Water (CW) intake and discharge tunnels by pouring concrete down the existing manholes located near the end of the tunnels. The concrete was pumped into “grout” bags fabricated

specifically for this intent. CW Intake and Discharge tunnels plugged with 12-foot long, 90-inch diameter concrete plug.

- EC 294476, Fuel Handling Transfer Tube Protection – Provide sand in the RB side deep end. The elevation of the sand is to be about 1 foot below the shallow end floor, Approximately 267 Cu. Yards.

A reconfiguration of the CR3 12 kV system is planned to be implemented that result in the following:

- 12 kV pad-mount switch MTSW-10 (distribution style switchgear) in the old Chemical Storage Building (North berm) will remain in-service connected to the A301 line, with no loads (existing loads disconnected and air gapped). This switch can be tuned OFF but could be turned ON and used by a demolition contractor for bulk North berm power.
- 12 kV pad-mount switch MTSW-8 (distribution style switchgear) on the South berm remains in-service connected to the A301 line, and supplies ISFSI and the new SS2 power system (Hot Machine Shop). Oil-filled transformer MTTR-7 is removed leaving a spare bay in MTSW-8 which could be used by a demolition contractor for bulk South berm power.
- Power to the PAB removed.
- NAB and NSOC is powered from the A300 Distribution Line coming down the access road (same line that powers the CCB).
- The CR3 12 kV system from Breaker A301 (A301 Distribution Line) is a CR3 dedicated loop around CR3 (West side) supplying ISFSI and CR3 loads with available (spare bays) bulk 12 kV power on the North and South berm.

3.5. Contractor Performance Requirements

Contractor shall assume responsibility for the work areas and the functions in accordance with the descriptions provided for each area of scope herein, and furnish personnel, facilities, equipment, material, services, and supplies and perform activities necessary to accomplish the work in a safe, efficient, and compliant manner. Contractor shall be responsible for providing project management and subcontractor oversight to enable the safe completion of the work. Contractor shall be responsible for planning and executing the programs, projects and other activities as described in each scope description. Contractor shall maintain a baseline schedule and develop, implement, and maintain a comprehensive cost management system. Decommissioning activities shall follow the requirements as established in Reference Appendix C.2, *Post-Shutdown Decommissioning Activities Report*, and C.3, *Defueled Safety Analysis Report*, as revised to reflect Contractor's post-closure plan.

Contractor shall meet the requirements of this section in accordance with Table 1.0, *DOR*.

3.5.1. Health and Safety Compliance

Contractor shall develop and maintain an Industrial Health and Safety program in accordance with all applicable laws and regulations.

3.5.2. Environmental Compliance

Contractor shall comply with all federal, state, and local rules and regulations, as well as Contractor's Environmental Program. Contractor's Environmental Program shall, as a minimum, be in accordance with DEF's Environmental program [Ref Appendix E.3], and DEF's rules and guidance documents, which pertain to the removal, handling, packaging, labeling, storage, shipment, and disposal of all wastes, including lead, mercury, and asbestos.

3.5.3. Radiation Protection Compliance

Contractor shall comply with all federal, state, and local rules and regulations, as well as Contractors' Radiation Protection Program, as applicable.

3.5.4. Program Management

Contractor shall develop and implement management systems that are compliant with applicable laws and applicable permits to govern, manage and execute the work. The program elements listed below are not intended to be exhaustive. The programs are expected to be modified by e Contractor as the work progresses. Contractor is responsible for ensuring work includes the elements necessary to meet the requirements of applicable laws and permits.

- Occupational Safety and Health
- Radiological Protection
- Emergency Preparedness
- Quality Program
- Engineering
- Environmental
- Chemistry
- Fire Protection
- Utilities
- Maintenance
- Nuclear Oversight
- Safety Culture
- Operations
- Corrective Actions
- Security
- Nuclear Security
- Site License and Nuclear Regulatory Affairs
- Site Support Services
- Training
- Work Control
- Business Systems

3.5.5. 10 CFR Part 50 License and Regulatory Affairs

Contractor shall be responsible for all license activities and requirements of 10 CFR Part 50. This includes all requisite programs and requirements that are the remit of the license holder. Contractor shall prepare, support, and defend any regulatory submissions required to perform work and obtain regulatory closure.

3.5.6. Operations

Contractor shall perform any operations as necessary in connection with its performance of work. These operations are inclusive of operating any SSC (e.g., environmental; chemistry; HVAC; radioactive waste processing, etc.); other support programs; temporary power generators; industrial trucks and equipment; and any other generic workers operating equipment.

3.5.7. Maintenance

Contractor shall perform necessary maintenance on SSCs and facilities utilized for D&D support, and all other Contractor equipment to ensure their availability.

3.5.8. Site Facilities Management

Contractor shall manage, operate and maintain the CR3 site and facilities manned by Contractor. Contractor shall develop a program (e.g., policy, plans, and procedures) to maintain appropriate facilities, property, and assets in place until the facilities are ready for disposition. Contractor shall establish a program (e.g., policies, plans and procedures) to ensure that SSCs and infrastructure are maintained consistent with their intended use and in compliance with all Applicable Permits and Applicable Laws as necessary until such time as they are planned for demolition, and that third-party property is not affected by activities of Contractor.

3.5.9. Permitting

Contractor will identify and acquire any licensing and permitting requirements for D&D. A list of current permits is contained in Appendix B, *HP and Environmental* folder located in the CR3 Document SharePoint site.

3.5.10. ISFSI Management

Contractor shall ensure the most current applicable rules and regulations, including CR3 site specific regulatory commitments, associated with ISFSI security; emergency planning and other required programs for a dormant plant are followed, and perform those requisite activities. Contractor shall comply with CR3 ISFSI Technical Specifications and ISFSI 10 CFR 72.212 Report. [Ref. Appendix C.3]

3.5.11. Agreements, Licenses, and Regulatory Commitments

Current CR3 agreements, licenses, and commitments are contained in Appendices B and C. Contractor shall comply with the requirements of said documents, and any additional requirements that may arise from regulator or stakeholder interface that may arise.

3.5.12. CR3 Interface and Interference with Other CREC Plants

Contractor shall be responsible for maintaining the CR3 interface with other CREC plants. There shall be no impact to the facilities or operations of the other CREC plants.

AI-1300, "Engineering, Maintenance and Support Interfaces," is a CR3 document which contains descriptions of the numerous interactions between CR3 and other Company organizations. [Ref Appendix A.4] It also defines the scope of the interfacing activities. The document is for use by organizations who perform activities which may affect the licensing/design basis of CR3 to identify those activities requiring the knowledge and participation of Nuclear Operations. A brief discussion of some of the interfaces follows: (NOTE: AI-1300 is under revision to remove references to Fire Service and Demineralized Water)

- Well Water System

Well water to Units 1, 2, and 3 is furnished from a common system. Units 4 and 5 are on separate wells. The maintenance and operation of the Units 1, 2, and 3 systems is under the supervision and direction of the Fossil Plant Superintendent. There may be limits on the amount of well water available.

- Intake and Discharge Canals

The intake and discharge canals are common between Units 1 and 2, 4 and 5, the Combined Cycle Plants, and the nuclear unit. Maintenance of the canals is the responsibility of the Crystal River Fossil Operations.

3.5.13. Project Management Requirements and Expectations

Contractor shall provide requisite reports that will allow DEF to adequately assess Contractor schedule performance. Contractor shall:

- Provide an effective organization that will serve DEF's best interest,
- Provide overall Project Manager and staff required to support project execution requirements,
- Maintain a baseline schedule,
- Develop, implement, and maintain a comprehensive cost management system,
- Develop and publish performance metrics as necessary.

4. FACILITY DECOMMISSIONING

The scope for Contractor is to implement the following activities:

4.1. D&D Planning

Contractor shall develop the following documents:

4.1.1. Transition Plan

To facilitate the transfer of responsibilities and assumption duties, Contractor shall develop a comprehensive Transition Plan (TP). The TP shall include:

- A section describing each function DEF will transfer to Contractor, Contractor's plan to assume responsibility for performance of the function, a DOR document for each transfer, and a list of prerequisite processes and procedures;
- A process for obtaining required permits and licenses;
- Interface agreements with CREC, and external stakeholders;
- A "readiness review" process to validate that Contractor is prepared to accept transfer of responsibilities and assumption of duties;
- A Level 3 schedule showing the development, review and approval for each program whose responsibility is transferred to Contractor.

4.1.2. License Termination Plan

Contractor shall develop a comprehensive License Termination Plan (LTP), and shall detail the activities, actions, dependencies, documents, and schedule to support the license termination (amendment) to ISFSI only, and final license termination.

4.1.3. Site Restoration Plan

Contractor shall develop a comprehensive Site Restoration Plan (SRP), and shall detail the activities, actions, dependencies, documents, and schedule to support the site restoration, including ISFSI.

Included in the SRP is a Landscaping Plan that details the drainage, planting, walkways, roads, and fencing.

4.1.4. Site Security Plan

Contractor shall develop a comprehensive Site Security Plan, including a Safeguards Program, for both nuclear and asset protection.

The Site Security Plan shall detail the activities, actions, dependencies, documents, and schedule to support the management, administration and implementation of the security program.

4.1.5. Waste Management Program

Contractor shall establish a Waste Management Program that includes policies, plans, and procedures. The Waste Management Program shall detail the activities, actions, dependencies, documents, and schedule to support the license amendment to ISFSI only and final license termination, and shall include:

- The technical approach to waste planning, characterization, handling, packaging, shipping, salvaging process, including identification of salvageable materials, and required inspections and permits,
- Policy addressing management of all waste streams,
- Waste stream quantity and disposition estimates over time,
- Personnel requirement,
- Reporting requirements,
- Records management process,
- Implementation schedule.

The Waste Management Program shall include plans and procedures for the following waste streams/types:

4.1.5.1. Effluent Disposition

Contractor shall be responsible for the processing and disposition of any effluent at CR3 in accordance with the Waste Management Program. This includes the proper categorizing and disposing of all effluents in accordance with applicable laws and permits. Contractor shall ensure that all long-range planning includes maintaining a viable effluent release path as necessary.

4.1.5.2. Non-Radioactive Non-Hazardous Waste

Contractor shall be responsible for the processing and disposition of any non-radioactive non-hazardous waste generated at or otherwise existing at CR3 in accordance with the Waste Management Program. This includes the proper disposing of all non-radioactive non-hazardous waste in accordance with applicable laws and permits.

4.1.5.3. Non-Radioactive Hazardous and Industrial Waste

Contractor shall be responsible for the processing and disposition of any non-radioactive hazardous and industrial waste generated at or otherwise existing at CR3 in accordance with the Waste Management Program. This includes the proper disposing of all non-radioactive non-hazardous waste in accordance with applicable laws and permits, including the management and disposal of PCP, PCBs, asbestos, mercury, and lead containing materials and coatings [Ref. Appendix D.7].

4.1.5.4. Low-Level Radioactive Waste Class A, B, and C

Contractor shall classify and treat Class A, B, and C waste (including mixed waste) whether existing at CR3 or generated by the work, in accordance with the Waste Management Program. Class A, B, and C waste shall be removed and disposed of offsite at properly licensed waste processing or disposal facilities.

4.1.5.5. High Level Waste (HLW)

Contractor shall characterize, process, package, and load HLW, including but not limited to GTCC, into storage containers that shall be stored in the ISFSI facility. Contractor shall evaluate said storage, including structural and 72.48 and 50.59 evaluations as required, and ensure compliance with all required laws and regulations. Contractor shall schedule the delivery of HLW storage containers and support equipment (e.g., shielded transfer casks) in sufficient time to support the work schedule. Contractor shall develop and maintain HLW waste quantity and disposition estimates and schedule projections and ensure that a sufficient number of storage containers are scheduled for delivery in time to support the work.

4.1.5.6. Transportation and Permitting

Contractor shall be responsible for the permitting and transportation of waste streams in accordance with all applicable laws, regulations, and permits.

4.2. Physical D&D

4.2.1. D&D Activities

Contractor shall remove SSCs and further reduce residual radioactivity to levels that permit release of the property for unrestricted future use and amendment/termination of the NRC license and as necessary to meet other applicable requirements. Example activities include:

- Provide temporary utilities including electricity and ventilation to work areas
- Segment the reactor vessel internals and packaging for shipment and disposal including loading those portions that are HLW waste into storage canisters Note: Contractor shall minimize the volume of HLW waste requiring packaging into dry storage containers
- Removing and disposing of large components including reactor vessel, steam generators, pressurizer, turbine generator
- Decontaminating and removing SSCs listed in Ref Appendix A.5
- Decontaminating and removing the approximately 1000' of Nitrogen supply line to the abandoned hydrogen farm
- Decontaminating and restoration of the West Settling Pond including decontaminating and removing Station Drain Tank Line that feeds the pond, and the pond discharge line
- Removal of CREC site interties (demineralized water, fire water, waste & sewage)

4.2.2. Hazardous and Non Hazardous Waste Management

Contractor shall be responsible for waste management and compliance with applicable laws permits, and provide qualified staff, materials, and equipment for handling such waste, to include:

- Developing and submitting written processes for waste management activities.
- The management and disposal of known and unknown CR3 PCP, PCBs, asbestos, mercury, and lead containing materials and coatings [Ref. Appendix B.1.1].
- Efficiently segregating waste to the lowest waste profile acceptable for disposal to optimize the packaging, transportation, and disposal costs.
- Characterizing, packaging, transporting, processing, and disposing of waste, including establishing and managing subcontracts for same.
- Operation and maintenance of any required effluent system(s).
- Processing and disposition of liquids either as found at CR3 or as generated during performance of work.
- Providing waste transportation and disposal documentation and approvals.
- Developing and maintaining waste quantity estimates and disposal schedule projections.
- Characterizing and packaging waste in accordance with Contractor's procedures, processes, and practices, as applicable.
- Ensuring that waste carriers have and maintain valid permits required for transportation of waste.
- Shipping and disposal of waste.
- Preparation of necessary shipping documents and manifests.
- Ensuring that waste is accepted, treated, and disposed at only facilities with valid permits and operating in compliance with applicable laws and permits.
- Ensuring documentation packages demonstrating waste disposal activities are complete one (1) week after receipt of Certificates of Disposal or as documented in approved records management process for the Waste Management Program.

Contractor may recycle, reclaim or otherwise salvage materials that meet the "free release" criteria established at CR3. Contractor shall implement a process for this verification and maintain documentation of same. Any and all value obtained for salvaged or scrapped materials remain with Contractor.

4.3. License Termination and Site Restoration

4.3.1. License Termination Requirements

It is unknown at this time when the spent nuclear fuel and HLW stored in ISFSI will be completely removed by the DOE or moved to an Interim Storage Facility; this activity is a prerequisite to final license termination. Contractor shall be responsible for the outcome, i.e., license amendment to ISFSI only and complete license termination. Contractor shall include the details in the LTP.

4.3.2. Site Characterization for License Termination

Contractor shall be solely responsible to complete site characterization as required to satisfy the license amendment/final termination. The current site boundary, defined as the Owner Controlled Area (OCA), shall be reduced in accordance with 10 CFR 72.104 and 72.106.

On January 22, 2019 in a letter to the NRC, DEF requested approval to remove the non-impacted survey units (3854 acres) from its Part 50 license in accordance with 10 CFR 50.83(b), "Release of part of a power reactor facility or site for unrestricted use". This will result in the CR3 OCA being reduced to 884 acres. Approval of this request is expected prior to transaction closure. A drawing of the new/reduced CR3 OCA can be found in Reference Appendix A.11.

Contractor shall perform characterization activities to support the license amendment/final termination. This site characterization must be performed in accordance with the guidelines in NUREG-1575 Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM); in NUREG-1757 Consolidated Decommissioning Guidance, Characterization, Survey, and Determination of Radiological Criteria, Volume 2, Revision 1; and in American Society of Testing and Materials Standard E 1281, Nuclear Facilities Decommissioning Plans, to demonstrate compliance with 10 CFR Part 20, Subpart E, Radiological Criteria for License Termination, regulations and standards leading to license amendment/termination.

Contractor shall provide any updates to the HSA, and the final HSA to DEF.

4.3.3. Radiological Criteria for License Termination

NRC Subpart E, "Radiological Criteria for License Termination," which amended 10 CFR Part 20, provides radiological criteria for releasing a facility for unrestricted use. The regulation states that the site can be released for unrestricted use if radioactivity levels are such that the average member of a critical group would not receive a Total Effective Dose Equivalent (TEDE) in excess of 25 millirem per year from all sources, taking into account the up to 4 millirem per year limit for drinking water (or such lower standards as may be agreed), provided that residual radioactivity has been reduced to levels that are As Low As Reasonably Achievable (ALARA). The site will be remediated to the levels specified in 10 CFR 20.1402, "Radiological criteria for unrestricted use," and all other state and local requirements, with remediation measures sufficient to result in substantially lower levels than required by the foregoing regulations.

4.3.4. Site Restoration Requirements

Contractor shall follow all applicable laws, regulations, local building codes and state environmental regulations during site restoration. Any and all value obtained for salvaged or scrapped materials remain with Contractor.

Contractor shall prepare the Site Restoration Plan (SRP) to specify the materials and processes used for backfill of lower elevations, i.e., concrete rubble generated from demolition activities, other clean backfill, etc. The SRP shall also specify what construction debris is trucked off site as an alternative to onsite disposal. The excavations will be regraded such that the power block area will have a final contour consistent with adjacent surroundings, and permits the growth of vegetation to prevent erosion, as required by the regulatory closure requirements. Site restoration is to include ISFSI.

The detailed Contractor scope for site restoration includes [Ref. Appendix A.3; A.5]:

- All SSCs removed and all system interties to other CREC plants isolated and/or removed (physical D&D scope complete) (including ISFSI)
- All designated buildings, structures, and pavement/asphalt removed
- Sufficient safe pathways remain or are installed within the areas disturbed during the decommissioning process, for access to/from ISFSI facility, parking lots, and other CREC facilities as applicable.
- As-built site condition established with environmental and long-term safety considerations incorporated
- Within the power block (all areas at berm elevation 119'):
 - The entire area cleared to a minimum of three (3) feet below grade level (defined as plant elevation of 119', i.e., the berm remains)
 - All pipes, cable, wiring, and equipment removed from all elevations of buildings and structures (only concrete and required structural steel remains)
 - Water drain holes will be drilled in the bottom of all below grade structures to be abandoned by burial
 - Pipe chases, electrical duct banks, vertical pump structures, and sumps will be backfilled with a suitable earthen material and abandoned.
 - Non-contaminated (radiologically or otherwise) underground piping greater than 3 feet below grade (except the intake and discharge raw/circulating water piping) will be evaluated for removal, abandonment, or filling to eliminate the potential for collapse after the site is released for unrestricted use.
 - The intake and discharge raw/circulating water piping will be either removed, collapsed and backfilled, or filled to eliminate the potential for collapse after the site is released for unrestricted use.
 - Affected areas backfilled to grade with gravel and sufficient topsoil to support erosion control vegetation growth, and sodded/seeded

- Outside of the power block (all areas not at berm elevation 119’):
 - areas made permeable to existing grade
- Firing range remediated as follows:
 - removal of soil containing lead residue
 - buildings and structures removed
 - pavement/asphalt removed
 - areas made permeable to existing grade
 - utilities (electric, water) removed
 - septic tank and leach field removed or sanitized, crushed and backfilled as required per regulations and permits
- West settlement pond remediated as follows:
 - Water removed and processed per regulatory requirements
 - Liner removed
 - Any contaminated soil removed per regulatory requirements
 - Influent and effluent piping removed
 - Backfilled to grade with sufficient topsoil to support erosion control vegetation growth, and sodded/seeded
- NRC license terminated to:
 - ISFSI only, with site boundary reduced to the ISFSI-only OCA in accordance with 10 CFR 72.104 and 72.106
 - AND to include final license termination for ISFSI
- All affected environmental permitting amended/approved/closed as required with:
 - ISFSI storm water control and ponds left unabated (until ISFSI decommissioning)
 - Final site storm water control system designed and implemented
- Unrestricted release (as defined as no more than 25 millirem per year plus ALARA) of the site (including ISFSI)
- Developing and delivering to Owner, a Final Site Survey and Condition (as-built) document

5. CR3 Document Library Index

The CR3 Accelerated Decommissioning Project team has assembled documents to support the evaluation of the site conditions and scope of work. These documents are located in the CR3 Document Library on the SharePoint site, and organized into Appendices as follows:

A. General

- A.1 TLG decommissioning estimate 2018
- A.2 2017_CR3 OCA_rv
- A.3 CR3 Layout with legend
- A.4 AI1300-R036
- A.5 List of Systems
- A.6 2017 Financial Status Report-As Filed
- A.7 2017 ISFSI Decomm Report – ML17135A230
- A.8 RG1.179
- A.9 RG1.184
- A.10 CR3 Controlled Documents Procedures Category as of 4-3-18
- A.11 Crystal River Unit 3 - Partial Site Release Request

B. HP and Environmental

- B.1 Historical Site Assessment HAS
- B.2 50.75g site procedure, plan, records and spill history
- B.3 Air Operation Permit
- B.4 Ground water monitoring
- B.5 NPDES
- B.6 ODCM
- B.7 Power History
- B.8 REMP
- B.9 RETS
- B.10 Storm Water
- B.11 FDEP CoC

C. Licensing

- C.1 CR3 PSDAR
- C.2 DSAR_R001
- C.3 ISFS-212 ISFSI 10 CFR 72.212 Report
- C.4 Defueled Tech Specs DSTS

D. Drawings

- D.1 Architectural-Layout
 - D.1-1 OXX Layouts
 - D.1-2 CR3-A Architectural (FPC)
- D.2 Mechanical, I&C, Piping, Building SVC
 - D.2-1 304 Physical Piping

- D.2-2 311 Building Service Physicals
- D.2-3 312 Tanks, Miscellaneous
- D.3 Structural Concrete
 - D.3-1 403 Turbine Building Mat., CC Walls
 - D.3-2 405 Turbine Building and CC Floors
 - D.3-3 408 XFMRs and Miscellaneous Turb. Bldg. Equip. FDNS
 - D.3-4 409 Turbine Generator Foundation
 - D.3-5 416 Elec. Manholes, Incl. TSC
 - D.3-6 421-0XX Reactor Building Concrete
 - D.3-7 421-1XX Auxiliary Building North Concrete
 - D.3-8 421-2XX Intermediate Building Concrete
 - D.3-9 421-3XX Ring Girder and Dome
 - D.3-10 422 Auxiliary Building South Concrete
 - D.3-11 426 CW Intake and Discharge, RW Anchors
 - D.3-12 434 Outside Building and Foundations
 - D.3-13 447 Foundation for Cable Support Bridge
- D.4 Structural Steel
 - D.4-1 502 Turbine Bldg. And CC Steel, CC HVAC Supports
 - D.4-2 506 Heater Bay Steel
 - D.4-3 521-0XX Reactor Building Steel
 - D.4-4 521-1XX Auxiliary Building North Steel Intermediate
 - D.4-5 521-2XX Building Steel
 - D.4-6 522 Auxiliary Building South Steel
 - D.4-7 526 CW Intake and Discharge Steel
 - D.4-8 534 Outside Building Steel
 - D.4-9 547 Cable Bridge Over Discharge Canal
- D.5 Civil
 - D.5-1 736 Plot Plan
 - D.5-2 743 Storm Drainage
 - D.5-3 744 Miscellaneous Civil
 - D.5-4 CR3-G Plot Plan (FPC)
- D.6 Reactor Vessel
- D.7 Asbestos Information
 - D.7-1 214-061-SH000
 - D.7-2 AI1810
 - D.7-3 SP5953
- E. Safety
 - E.1 2017 Health and Safety Handbook
 - E.2 STPD-SAF-PMC-00002-005, Contractor Environmental, Health and Safety (EHS) Supplemental Requirements

E.3 2018 Environmental Handbook

F. Cold and Dark Engineering Changes

F.1 Implemented EC's

F.1-1 EC 293487 – Circulation Water Piping Intake-Discharge Closure

F.1-2 EC 294476 - Fuel Handling Transfer Tube Protection

F.1-3 EC 407270 - FP Transition to Decommissioning

F.1-4 EC 407371 - CR3 Dormancy Ventilation

F.1-5 EC 407372 - CR3 Dormancy Electrical

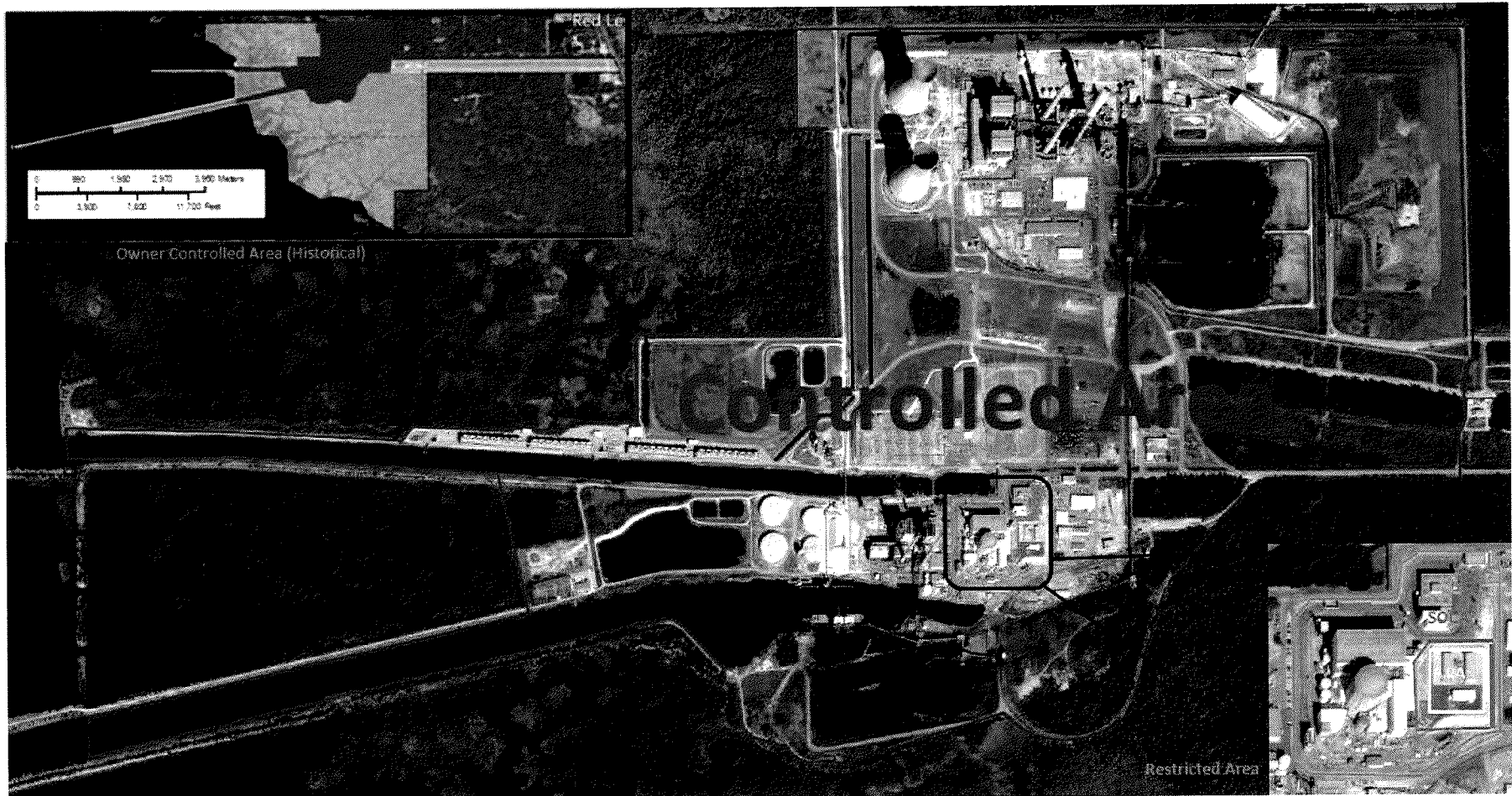
Attachment A
CR3 Decommissioning Boundaries

Also called "Owner Controlled Area" or NRC Licensed Site" When the site reduction is approved by the NRC, this will no longer be the "Owner Controlled Area" or "NRC Licensed Site"

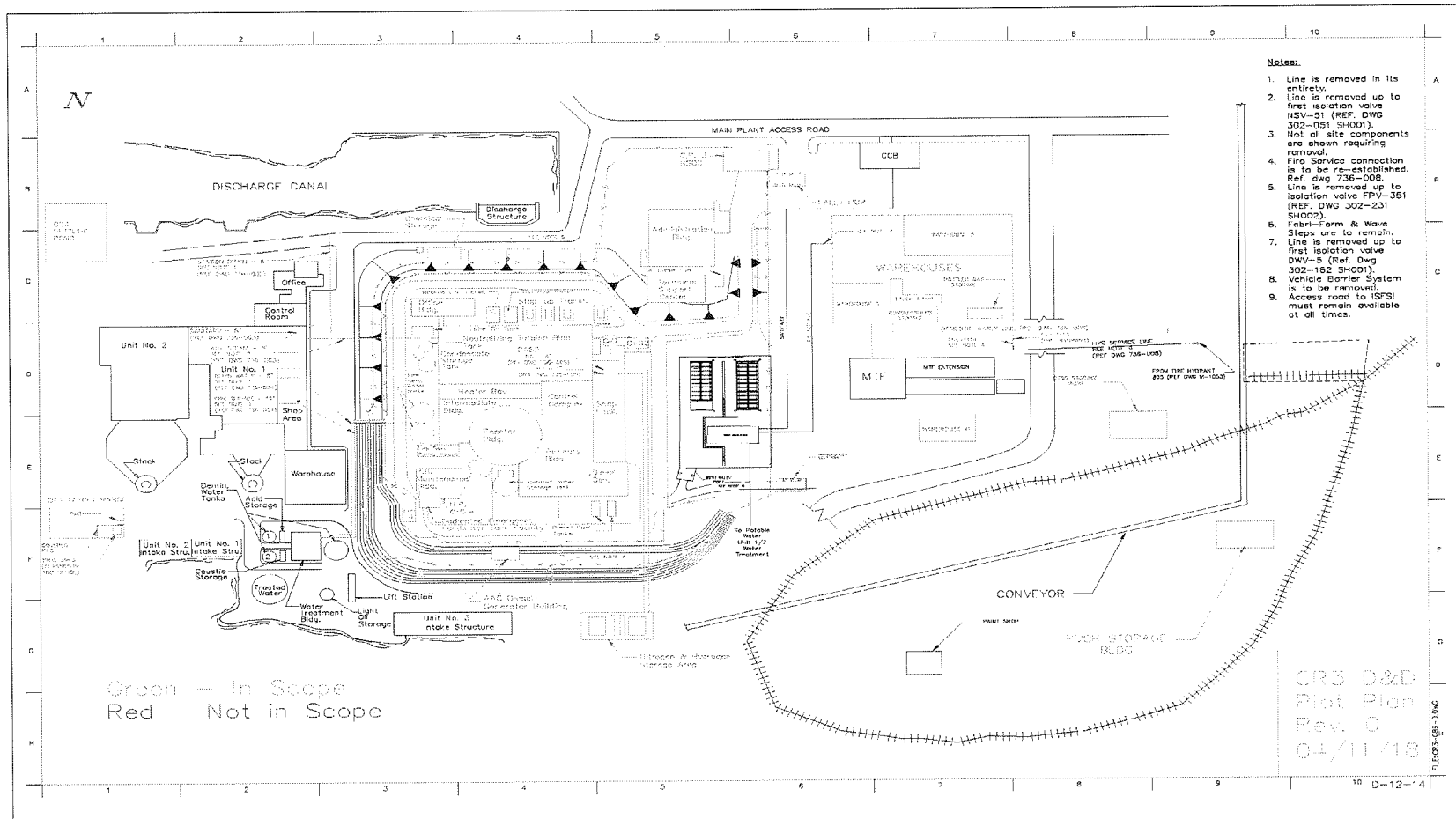
CR3 OCA



Controlled Area When the site reduction is approved by the NRC, this will also be known as the "NRC Licensed Site"



CR3 Facility



Term	Definition	Defined in External Documents	Defined in CR3 Documents
Crystal River Site	<p>The area commonly known as the "Crystal River Energy Complex" that contains the CR-3 Facility, the Controlled Area, the ISFSI, and the Excluded Facilities.</p>	<p>40CFR190 defines "Site"</p>	<p>Tech Specs:</p> <p>Section 4.1 – "the 4,738-acre site is characterized by a 4400-foot minimum exclusion radius centered on the RB"</p> <p>"Site" as defined in Tech Specs is a historical term. It will be taken to mean the Owner Controlled Area (i.e., the 4,738-acre site)</p> <p>HPP procedures will define it as equal to the 884-acre Controlled Area or Site Boundary AFTER the 50.83 partial site release is approved by the NRC</p>
Owner Controlled Area (OCA) (or the NRC-Licensed Site prior to NRC's approval of the requested reduction to the OCA)	<p><u>This term is used in this Attachment 1 prior to the time the 50.83 partial site release to reduce the historical Crystal River Site is approved by the NRC</u></p> <p>All the real property subject to the NRC License, i.e., the 4,738-acre historical Crystal River Site.</p> <p>Any reference to the Owner Controlled Area (OCA) shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at the OCA and any references to items "at the OCA" shall include all items "at, in, on, upon, over, across, under, and within" the OCA.</p>		<p>DSAR: Section 2.2 - the 4,738-acre historical Crystal River Site.</p>

Term	Definition	Defined in External Documents	Defined in CR3 Documents
<p>Controlled Area (CA) (or the NRC-Licensed Site after NRC approval of the requested reduction of the OCA)</p>	<p><u>This term is used in this Attachment 1 once the 50.83 partial site release to reduce the size of the OCA is approved by the NRC</u></p> <p>All the real property subject to the NRC License, i.e., the 884-acre area encompassing the CR3 Plant and ISFSI, defined by the latest approved Partial Site release, and further described in the DSAR.</p> <p>Any reference to the CR3 Controlled Area (CA) shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at the CA and any references to items "at the CA" shall include all items "at, in, on, upon, over, across, under, and within" CA.</p>	<p>[Note: This is specific to 10 CFR 50 for the reactor/plant site]</p> <p>10 CFR 20: means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason.</p>	<p>DSAR Section 2.2 - the 884-acre CR3 Controlled Area.</p> <p>HPP-605: an area outside the restricted area (e.g., Security protected area fence), but inside the site boundary, that public access can be limited (prevented) by Security</p> <p>HPP-333: It is the 884-acre CR3 site remaining after the Partial Site Release license amendment is approved by the NRC, otherwise it is the full 4,738-acre site complex. Each meets the minimum 100-meter distance requirement in 10 CFR 72.106.</p> <p>CP-161: It is the 884-acre CR3 site remaining after the Partial Site Release license amendment is approved by the NRC, otherwise it is the full 4,738-acre site complex. Each meets the minimum 100-meter distance requirement in 10 CFR 72.106.</p> <p>Note: For the CR3 Facility and the ISFSI, the Controlled Area is the identical area.</p>
<p>CR-3 Facility</p>	<p>The pressurized reactor power plant and all the ancillary facilities, warehouses, equipment, supplies, structures and buildings, including the ISFSI and underground structures, that form the Crystal River nuclear power plant, commonly known as Crystal River Unit 3, located on the Gulf of Mexico in Citrus County, Florida, but in any event not including the Excluded Facilities.</p>	<p>N/A</p>	<p>N/A</p>

Term	Definition	Defined in External Documents	Defined in CR3 Documents
<p>ISFSI Controlled Area (also referred to as the NRC-Licensed Site and CA) Exclusion Area Exclusion Area Boundary</p>	<p>All the real property subject to the NRC License, i.e., the 884-acre area encompassing the CR3 Plant and ISFSI, defined by the latest approved Partial Site release, and further described in the DSAR.</p> <p><u>"Exclusion Area"</u> has the meaning as defined under NRC rules and regulations, and with respect to the CR-3 Facility, means the area within the Exclusion Area Boundary that completely surrounds the ISFSI.</p> <p><u>"Exclusion Area Boundary"</u> means the boundary that completely surrounds the ISFSI and defines the Exclusion Area.</p>	<p>[Note: This is specific to 10 CFR 72 for the ISFSI]</p> <p>10CFR72.106: means that area immediately surrounding an ISFSI for which the licensee exercises authority over its use and within which ISFSI operations are performed.</p> <p>Also, 10 CFR 72.106 states: The minimum distance from the spent fuel, high-level radioactive waste, or reactor-related GTCC waste handling and storage facilities to the nearest boundary of the controlled area must be at least 100 meters. The term "Controlled area of an ISFSI" is used in 10 CFR 72.106.</p>	<p>ISFSI-212: The ISFSI controlled area boundary (CAB) is defined as being the same boundary limits as CR3's Owner Control Area (OCA) boundary as described in chapter 2.2.2 of CR-3's FSAR.</p> <p>Note: For the CR3 Facility and the ISFSI, the Controlled Area is the identical area.</p>
<p>ISFSI</p>	<p><u>"ISFSI"</u> means the existing dry spent fuel storage installation on the Crystal River Site where the Spent Nuclear Fuel and HLW from the CR-3 Facility is located and stored, and the ancillary facilities related thereto, but excluding the Spent Nuclear Fuel and High-Level Waste stored thereon, and excluding the storage cask systems that will be shipped together with the Spent Nuclear Fuel and the HLW when it is removed from the ISFSI and the NRC-Licensed Site</p>	<p>N/A</p>	<p>N/A</p>

Term	Definition	Defined in External Documents	Defined in CR3 Documents
ISFSI Site	"ISFSI Site" means the portion of the Crystal River Site where the ISFSI is located, as further described and occupying the area, and including the area that lies within the Exclusion Area Boundary, as that area may be modified from time to time under the NRC License.	N/A	N/A
Site Boundary (the boundary that defines the NRC-Licensed Site following reduction of the OCA to 884 acres)	The boundary that defines the "Controlled Area", listed in the DSAR as the sites legal description.	10 CFR 50 – Multiple references to "Site Boundary"	<p>ODCM- section 1.11 - The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee.</p> <p>CP-500: mentions "site boundary" in numerous places but not defined</p> <p>Note: For the CR3 Facility and the ISFSI, the Site Boundary is the identical area.</p>
Restricted Area (RA)	The area within the old CR3 Protected Area fence.	<p>10 CFR 19: means an area, access to which is limited by the licensee for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials. Restricted area does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.</p> <p>10 CFR 20: means an area, access to which is limited by the licensee for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials. Restricted area does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.</p>	<p>HPP-333: an area where access is limited (restricted) for the purpose of providing radiation protection to the public. The CR3 restricted area is the area inside the fenced perimeter around the plant that was the old Security Protected Area.</p> <p>AI-9000: The area controlled by the perimeter fence formerly known as the CR3 protected area and is accessed through the nuclear security operations center (NSOC) and two gated vehicle entrances.</p>
ISFSI Security Owner Controlled Area (SOCA)	Security Term – means the area inside the ISFSI vehicle barrier system (VBS)	Used in 73.55 for Security, but not defined in Part 73 definitions section. Security calls it the ISFSI Security Owner Controlled Area (SOCA)	

Term	Definition	Defined in External Documents	Defined in CR3 Documents
Protected Area (PA)	Security Term – means the area within ISFSI the inner fence.	10CFR73: means an area encompassed by physical barriers and to which access is controlled	Security term mentioned in the Security Plan. DSAR: Mentioned in sections 4.2.4.1 and 3.9.7.4 but not defined. ODCM: mentioned but not defined.

**Exhibit No. __ (TH-1) to the
Direct Testimony of Terry Hobbs**

Pages 332-333 of 597

Attachment 2

**REDACTED IN
ENTIRETY**

ATTACHMENT 6

**COMPANY'S KNOWLEDGE;
CONTRACTOR'S KNOWLEDGE**

1) Company's Knowledge

Ron Reising
Alan Fata
Terry Hobbs

2) Contractor's Knowledge

Scott State
Jeff Adix
Sam Shakir
Fredric Bailly
Geoff Wilde

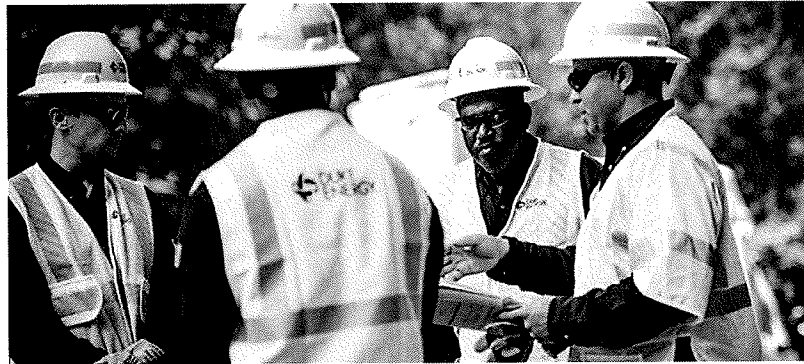
**Exhibit No. __ (TH-1) to the
Direct Testimony of Terry Hobbs**

Pages 335-337 of 597:

Attachment 7

**REDACTED IN
ENTIRETY**

Environmental, Health and Safety Handbook



⦿ This icon indicates an update from the previous version of this handbook.

Duke Energy EHS Vision

Relentless drive to protect the safety of our employees, our communities and our environment.

Safety Principles and Employee Responsibilities

It takes all of us to be engaged in safety for every task, every day. Engaged employees will follow the Duke Energy safety principles:

Personal Accountability

- Be responsible for your own safety.
- Know and follow safety rules and standards at all times – even when no one is watching.

Active Caring

- Observe, stop and coach co-workers who are not in compliance or who exhibit at-risk behaviors.
- Take action to ensure the safety of others, and be willing to accept advice.

Hazard Recognition

- Be aware of your surroundings at all times.
- Take time to actively seek out and mitigate hazards.
- Participate actively in safety improvement efforts.
- Report immediately to supervision incidents and near misses of all types including minor injuries and first-aid cases.
- Be fit for duty and capable to perform the task at hand.
- Participate actively in job briefings. Be fully aware of hazards associated with the job, work procedures involved, special precautions, energy source controls, chemical exposures, and personal protective equipment requirements.

Responsibility for Environmental Protection

We are committed to being a good neighbor, which means we respect and honor our role as a steward of our environment. Sustainability is central to everything we do, and responsible management of our natural resources is critical to a cleaner environment, the quality of life in the communities we serve and Duke Energy's long-term business success.

What this means for you when it comes to environmental protection is that you will:

- Know, understand and comply with environmental rules and regulations applicable to the job.
- Do not take shortcuts that could result in damage to our environment or violate environmental procedures.
- Support sustainability efforts at your job site.
- Promptly report all incidents or near misses to supervision and ensure that you do not misrepresent the occurrence or severity of an incident.
- Implement job site best management practices and lessons learned to improve environmental performance and mitigate risks.
- Actively participate in job briefings and environmental requirement reviews. Be fully aware of the environmental aspects and impacts associated with the job, potential exposures, work procedures and controls, and roles and responsibilities.

Duke Energy Health & Safety Policy

Duke Energy is committed to employee, contractor and public health and safety. Protecting our people enhances the quality of life for our workforce and contributes to Duke Energy's long-term business success. Through each person's commitment, ownership and engagement, the company will strive to achieve an injury- and illness-free workplace.

The Health & Safety Policy establishes principles to fulfill this commitment. Through them, Duke Energy will:

Compliance

- Comply with applicable laws and company policies and procedures while also proactively addressing risk and building margin into our planning and operations.

Agility

- Be nimble as new risks and opportunities emerge. Act with a sense of urgency while ensuring accuracy in all our responses. Apply lessons learned effectively across the enterprise.

Accountability

- Set clear expectations, provide support and training, and hold employees accountable for understanding and incorporating health and safety responsibilities into daily work activities. Actively engage the management of our contractors to hold them accountable for compliance with laws and applicable company requirements.

Managing Impacts

- Provide a safe and healthy workplace and be prepared to respond effectively in the event that incidents occur. Empower all employees to actively identify hazards, prevent and correct unsafe conditions, and demonstrate safe behaviors at every level. Select, manage and partner with contractors to improve health and safety performance.

Continual Improvement

- Set challenging goals to attain industry-leading performance and continually assess performance to improve health and safety management systems, processes and results. Recognize and reward safety excellence.

Stewardship and Transparency

- Develop and maintain effective public safety programs to educate and inform the public in the communities in which we operate. Interact with key stakeholders to develop responsible laws and regulations that enhance health and safety in the workplace and communities.

Duke Energy Environmental Policy

Duke Energy is committed to the highest levels of performance in environmental compliance, practices and stewardship. Protecting and responsibly managing natural resources are essential to a cleaner environment, the quality of life in the communities we serve and Duke Energy's long-term business success.

The Environmental Policy establishes principles to fulfill this commitment. Through these, Duke Energy will:

Compliance

- Comply with applicable statutes, regulations, permit obligations and company policies and procedures while also proactively addressing risk and building margin into our planning and operations.

Agility

- Be nimble as new risks and opportunities emerge. Act with a sense of urgency while ensuring accuracy in all our responses. Apply lessons learned effectively across the enterprise.

Accountability

- Set clear expectations, provide support and training, and hold employees accountable for understanding and incorporating their environmental responsibilities into daily work activities. Actively engage the management of our contractors to be responsible stewards of the environment while complying with statutes, regulations, permit obligations and applicable company requirements.

Managing Impacts

- Work to prevent environmental incidents and be prepared to respond effectively in the event that they occur. Empower all employees and contractors to use natural resources efficiently to reduce consumption, waste, discharges and emissions. Integrate environmental considerations into planning, design, construction and operational decisions.

Continual Improvement

- Set challenging goals to attain industry-leading performance and continually assess performance to improve environmental management systems, processes and results. Collaborate across the enterprise to proactively address environmental issues and explore opportunities to prevent pollution while safely providing affordable and reliable energy to our customers.

Stewardship and Transparency

- Support community efforts in environmental education, protection and conservation. Engage in partnerships that address common issues and promote sound public policy. Communicate environmental challenges and performance to maintain the trust and confidence of our stakeholders.

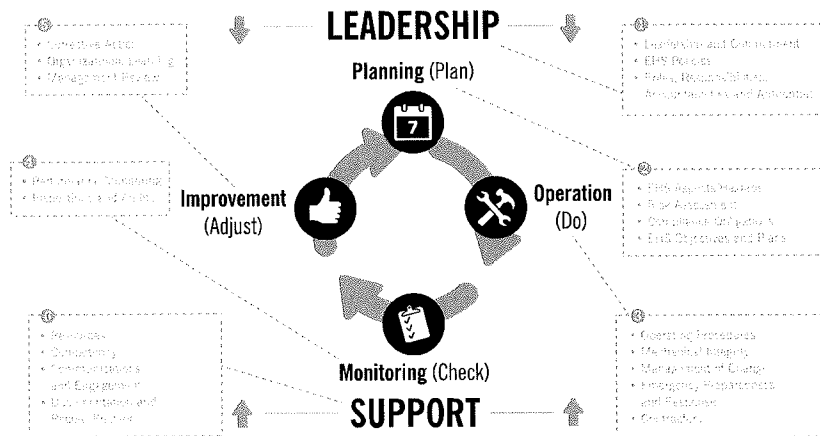
EHS Management System

Duke Energy has implemented an Environmental, Health and Safety Management System to ensure the consistency and effectiveness of its EHS management activities, including:

- Continually improving EHS risk management
- Preventing and detecting noncompliances
- Reducing adverse impacts to the environment
- Enhancing the company's reputation with external stakeholders

The EHS Management System is designed to be consistent with relevant international standards such as International Organization for Standardization guidelines and industry standards. However, it has been customized to apply to Duke Energy's unique operating environment, risk profile and culture.

EHS Handbook 2015 - Introduction



Scope

The EHS Handbook applies to all non-nuclear Duke Energy employees and contractors.

Environmental Awareness

Identify and discuss environmental risks during work planning and pre-job briefs to eliminate or avoid environmental risks.

1. Consider environmental risks and associated control measures in Job Hazard Analyses (JHAs).
2. Be prepared to respond effectively if an environmental incident occurs, and if it is safe to do so. Immediately control the area and contact your supervisor and the field environmental/EHS professional.
3. Adhere to site-specific environmental procedures or guidance. Contact your supervisor or the field environmental/EHS professional to discuss site-specific environmental requirements or training.
4. Comply with all environmental laws, regulations, permit obligations and company policies and procedures.
5. Use materials and other resources efficiently to reduce waste generation, discharges and emissions.
6. Be aware of your proximity to water bodies and/or drains that could discharge materials directly to a water body.
7. Give extra focus and attention to environmental risks when working in or near sensitive environmental areas (e.g., on or near wetlands or water bodies).
8. Protect the sensitive area with engineered and/or administrative controls as necessary.
9. Avoid chemicals that create hazardous waste byproducts or may become hazardous waste, if unused. Substitute with nonhazardous chemicals when possible. Ensure all chemicals are approved and have a Safety Data Sheet in eTRAC prior to use.
- ★ 10. Notify management and the local EHS professional if an environmental regulator arrives on-site. If the EHS professional is not available, provide clear, concise and factual information as requested.

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EHS Sections

Chemical Management

General Chemical Safety

1. Before starting work, identify all hazardous substances involved with the work task. Hazardous substances can be chemicals involved in the work process, materials used, or coatings and insulation to be installed or removed.
2. Review the Safety Data Sheets (SDS) for hazard information when appropriate.
3. When working with hazardous materials/chemicals, be able to perform the following in an emergency situation:
 - a. Identify an emergency situation.
 - b. Know how and when to report the chemical emergency.
 - c. Know local places of refuge/how to evacuate the area.
 - d. Know appropriate decontamination procedures.
4. Observe the following work practices where hazardous substances (materials and chemicals) are present:
 - a. Do not eat or drink; do not use tobacco products.
 - b. Wash hands and face at breaks. (When appropriate, shower at the end of work task or shift.)
 - c. Never blow on or shake off contaminated clothing, and never use compressed air to clean it.
 - d. Place contaminated clothing in plastic bags and label the bags.
 - e. Clean the contaminated area. During the cleanup, use care to avoid further spread of the contamination.
 - f. To prevent unnecessary personnel exposure, mark off the work area as necessary with ribbons, tapes, signs or barriers.
 - g. When a splash hazard exists, verify availability and location of eyewash/shower facilities before performing tasks.
 - h. Use personal protective equipment as specified by SDS, policy or job hazard analysis, etc.
5. Conduct industrial hygiene monitoring as necessary to ensure a safe work environment.

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6. Where hazardous chemicals/materials are used, stored or disposed of in the workplace, use engineering controls (e.g., natural, forced or local exhaust ventilation) to eliminate or reduce airborne concentrations of hazardous substances where practical.
7. Respiratory protection equipment and personal protective equipment (including clothing) shall be specified by work procedures or qualified persons based on an evaluation of the hazard and the exposure levels.
8. Bulk loading or unloading of chemicals shall be performed by procedure and continuously observed.
9. When moving chemicals, ensure the following precautions are observed:
 - a. Ensure that chemical containers are closed tightly and protected from damage.
 - b. Ensure that glass containers containing dry chemicals are protected from breakage by placing them in appropriate outer packaging.
 - c. If moving highly hazardous liquid chemicals in glass containers, place the glass containers in protective carriers before movement.
 - d. Secure chemicals being moved on vehicles or pallets against movement by means such as banding, strapping or taping.
 - e. Comply with Department of Transportation requirements where applicable.

Acid and Caustics

1. When acids or caustics are mixed with water, the acid or caustic must be poured into the water, not the water into the acid or caustic.
2. Hydrazine is toxic and caustic and must never be handled without adequate ventilation. Skin or clothing contact and the breathing of vapors must be avoided.
3. Open flames and smoking are prohibited when working with or near acid in metal containers, such as tanks, condensers or boilers.
4. Storage of acids and caustics:
 - a. Acids, in any quantity, must be kept in an approved container and prominently labeled. These containers must not be used for any other purpose.
 - b. Acids must not be stored near heaters, steam pipes or other sources of heat.
 - c. Acid containers must be securely sealed or covered.

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- d. Workers handling acids, caustics or other corrosive and toxic chemicals must wear personal protective equipment such as gloves, aprons, eye and face protection, etc.
 - e. Storage areas for acids and caustics must be posted with appropriate warning signs.
5. Handling of acids and caustics:
- a. Personal protective equipment and clothing must be worn whenever acids or caustics in harmful quantities could spill, splash or drip on the person handling them. The quantity and type of acid or caustic handled will determine the kind and quantity of clothing and equipment.
 - b. Should any acids or caustics come in contact with the eyes, they must be thoroughly washed out with a large amount of running water for 15 minutes. A physician must be consulted as soon as possible. Do not rub the eyes.
 - c. Approved emergency eyewash/shower must be available where acids and caustics are handled.
6. Before an acid or caustic container is lifted or moved, it must be examined carefully to see that it is not leaking or defective.

Chemical Control

1. All chemical products purchased by Duke Energy must be evaluated through the Corporate Chemical Control Program (ADMP-ENV-EVS-00008) and approved in the eTRAC Chemical module prior to purchase.
2. Safety Data Sheets, approval status and ordering numbers can be found via the MSDS Search tool on the DAE or Duke Energy Portal.
3. Purchase chemical products via supply chain using a Maximo Item Number, Nuclear Catalog ID or approved supply chain e-stock catalog.
4. Credit cards cannot be used to purchase chemicals, except in emergency situations such as outages or situations that impact plant operability. Contact the field environmental/EHS professional for assistance submitting an Emergency Purchase Form.
5. Submit requests for new chemicals using a Chemical Approval Form and manufacturer's SDS allowing two weeks for approval. The Chemical Approval Form is located on the Chemical Commodity Management SharePoint. Contact the field environmental/EHS professional or Chemical Control team for assistance with new chemicals.

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6. The following ingredients are banned from purchase:
 - MDA or 4, 4-Methylenedianiline
 - Methylene chloride or dichloromethane
 - Asbestos
 - Paints or coatings containing lead or hexavalent chromium
7. Seek approval from site management to procure a product that contains a banned ingredient. Contact the field environmental/EHS professional for assistance submitting a Banned Chemical Exemption Form.
8. Current safety data sheets can be found by using the eTRAC SDS Search.
9. The field EHS professional coordinates chemical inventory tasks to ensure accurate chemical inventory data and reports are provided to regulatory agencies. Alert the field environmental/EHS professional to any activities that have the potential to increase or decrease on-site chemical quantities, such as:
 - Changes in site processes involving chemical products (e.g., fuel handling, air pollution controls, water treatment, plant operations and maintenance)
 - Addition or removal of bulk containers (e.g., tanks, totes, drums)
 - Contractor activities involving chemical products brought on-site (e.g., during outage work, maintenance activities, construction projects)
10. Ensure products are being used in the proper application. All containers must have the manufacturer's label or OSHA Hazard Communication compliant secondary container label attached at all times.
11. Do not pour or put any chemical into a drain, toilet, trash receptacle or onto the ground for disposal purposes.
12. Contact your supervisor or the field environmental/EHS professional if you have unusable chemicals that require disposal.
13. Immediately report all chemical spills to your supervisor and the field environmental/EHS professional.

Contractor Chemical Control

1. At least two weeks before arriving at the site, work with your site sponsor or project manager to provide the field environmental/EHS professional a list of the products to be brought on-site. Include the maximum quantity of each to be stored, safety data sheets for each product and the number of days each product will be stored.

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2. Ensure the field environmental/EHS professional has evaluated and approved products prior to bringing the products on-site (including pesticides and herbicides).
3. Avoid chemicals that create hazardous waste byproducts or become hazardous waste if unused. Substitute with nonhazardous chemicals when possible.
4. Familiarize yourself with the chemical hazards, required personal protective equipment (PPE), precautions, usage restrictions, exposure effects, storage requirements, and proper disposal methods prior to using any product. Do not handle any chemicals without the proper PPE.
5. Ensure products are being used in the proper application. All containers must have the manufacturer's label or OSHA Hazard Communication compliant secondary container label attached at all times.
6. Remove all usable chemical commodities from the site that are not consumed during the job. Waste materials must remain on-site for proper disposal.
7. Do not pour or put any chemical into drain, toilet or trash receptacles or onto the ground for disposal purposes.
8. Contact the field environmental/EHS professional if you have unusable chemicals that require disposal.
9. Ensure that preventive measures, such as containment, are in place to minimize the risk of a chemical release.
10. Know where your closest spill kit is located in the event of a spill.
11. Immediately report all spills to facility personnel.
12. Follow the SWIM process for any chemical spills (Secure the area, Warn others, Inform appropriate personnel and Maintain the area until help arrives) if you are not formally trained in spill response.

Hazard Communication

1. Workers must know how to access SDS for hazardous chemicals they are exposed to at work. SDS were formerly known as Material Safety Data Sheets (MSDS).
2. Notify supervision if label is missing or cannot be read.
3. Use only materials/chemicals that are appropriately labeled. Exception: Secondary containers do not require labels if under constant user control and used within the shift.
4. Follow label instructions for chemical use and storage unless otherwise instructed by H&S/EHS professional.

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5. The handling of a chemical shall be in accordance with the precautions and personal protective equipment specified in the SDS for that chemical unless otherwise instructed by H&S/EHS professional.
6. Wear proper personal protective equipment when handling chemicals.
7. When working at another company's facility or alongside another company's workgroup, you have a right to request SDS for their chemicals to which you are potentially exposed. Likewise, they can request copies of SDS for chemicals being used by Duke Energy employees.
8. Chemical wastes generated during maintenance on systems or equipment containing hazardous chemicals shall be handled in accordance with environmental procedures.
9. Personnel shall be familiar with the location of first-aid supplies and ensure that emergency showers and eyewash basins in the immediate work area are operable before starting work.
10. Follow procedures for loading and unloading bulk hazardous chemicals from tanker trucks or rail cars.

Emergency Response

1. Be familiar with emergency procedures, including site-specific emergency plans.
2. Provide environmental or safety observations or concerns to your supervisor or the H&S/EHS professional.
3. In the event of a chemical emergency, do the following if it is safe to do so:
 - Secure the area.
 - Warn others to leave the area.
 - Inform the field Environmental/EHS professional immediately.
 - Monitor the situation until qualified emergency response personnel arrive.
4. Where applicable, be able to recognize the emergency evacuation signals.
5. Be familiar with and use designated evacuation routes and exits.
6. When an alarm or other notification is activated, report to your assigned assembly area, or proceed to your designated area of safe refuge and remain there until instructed otherwise.
7. Know and understand the site process for reporting emergencies (e.g., site emergency phone numbers vs. 911).

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8. Report all fires immediately, regardless of the size of the fire.
9. Follow the instructions of all emergency response personnel.
10. If you are a member of an emergency response team (HAZMAT, Fire Brigade, Confined Space Rescue, etc.):
 - a. Ensure that your required training is current.
 - b. Follow the procedures in appropriate response plans. Inspect emergency response equipment prior to use.
 - c. Inform the response team leader of any medical or other personal issues that would prevent you from safely participating in a response.

Environmental, Health and Safety Event Reporting and Investigation

1. At Duke Energy, the safety of our employees, contractors and the environment is of utmost importance. When accidents or events occur, it is essential to understand what happened and why so that we can learn and improve our operations to prevent event recurrence.
2. Employees shall report all health and safety incidents to supervision immediately. This includes work-related injuries and illnesses, near-miss incidents, vehicle accidents, fire, explosions and other situations. Supervisors shall report incidents to their management and H&S/EHS professional.
3. The EHS Event Reporting and Investigation Program (ADMP-EHS-EHS-00004) includes an event reporting and investigation process. This process ensures that EHS events are correctly categorized, properly reported and adequately investigated to determine the cause(s) and to ensure that recommendations and corrective actions are implemented to prevent recurrence. This program is applicable to all EHS events across the enterprise that affect employees and contractors working on Duke Energy property, equipment or products.
4. Take action when an event occurs:
 - a. Ensure that personnel in the immediate area are safe.
 - b. Take steps to stabilize the event location and surrounding area if it is safe to do so.
 - c. Take steps to minimize environmental impacts if it is safe to do so.
 - d. Obtain medical treatment for yourself or others as needed.
 - e. Immediately report the event. Call the control room (if applicable), your supervisor and the field environmental/EHS professional.

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5. Report all environmental events to your supervisor or the field environmental/EHS professional as soon as possible so that any necessary notifications to outside agencies can be made within strict regulatory deadlines (some are as short as 15 minutes):
 - a. Preserve any evidence for investigation while ensuring personal safety and the environment.
 - b. Provide accurate information, as required, to support incident investigation.
- ★ 6. Contractors shall report EHS events and make notifications in accordance with the applicable business unit EHS Supplemental Requirements.

★ OSHA Compliance Personnel

1. If an OSHA compliance inspector arrives on-site, employees should notify management and the site or local H&S/EHS professional that the inspector has arrived.
2. Ask the inspector not to initiate the inspection until the H&S/EHS professional arrives.
3. For mobile crews, ask the inspector not to initiate the inspection until the selected management representative arrives at the job site.
4. Funnel all communications to and from inspectors through the H&S/EHS professional or management representative.

★ Job Briefing

General

1. Conduct a job briefing prior to any activity involving hands-on work, material movement, infield inspections or work in a potentially hazardous environment.
2. The purpose of a job briefing is to validate that workers understand the scope of the work, have discussed specific roles and responsibilities, have fully identified potential hazards and risk and are properly prepared to perform their assigned work tasks safely and event-free.
3. The employee in charge or designated crew member will conduct the job briefing with the workers involved before they start each job.
4. An interactive job briefing is always required that involves engaged participants.

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5. The time and location selected for conducting a job briefing should minimize distractions that reduce the effectiveness of the briefing.
6. Worker proficiency with equipment to be used or worked on should be discussed as well as the defined roles of each worker.
7. Each job briefing will clearly define the job scope, including detail of items that are not within the scope and any specific stopping points.
8. Individuals should come prepared for the job briefing. The preparation required is specific to the job performed but may include tasks such as reviewing the Job Hazard Assessment (JHA), qualifications, work documents, job site walk-down, etc.

Timing

1. Conduct job briefings prior to work starting for the job or task involved.
2. Additional job briefings may be conducted at any time during the performance of a job and are a valuable tool to refocus a team when moving from one task to another.
3. Upon arrival at the worksite, a Take-A-Minute/2-Minute Drill shall be conducted to ensure job-site hazards are assessed and mitigated. See business unit guidance.
4. In the case of an emergency where potential adverse impact to the safety of personnel or the public requires immediate response, job-site hazards should be assessed and mitigated, to the extent possible.
 - a. The performance of a job briefing may be delayed until the first-possible opportunity following the immediate event response. A job briefing must be conducted prior to any non-emergency work being performed.
5. If the work or operations to be performed during the workday or shift are repetitive and similar, at least one job briefing shall be conducted before the start of the first job of each day or shift.
6. If the work is stopped for an extended break, interruption or delay, the work team shall review the job briefing prior to work start.

Stop Work Criteria

1. Stop work, contact supervision or employee in charge and conduct additional job briefings if:
 - a. Significant changes that might affect the safety of the workers occur during the course of the work
 - b. Changes to the job scope that impact the adequacy of the initial job briefing occur (For example, changes in location, additional permits,

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- equipment used, needed energy source control boundary or work methods, troubleshooting, etc.)
 - c. Unexpected or unsafe conditions present at the work location that would require a change to the job scope described above to mitigate
 - d. Unexpected impacts to the environment, health and safety of the public or customers occur
 - e. Changes to the team composition or roles of the team members occur
 - f. The employee in charge may evaluate whether a new job briefing must be performed with the entire team or only those that have changed roles
2. The employee in charge may determine whether non-significant changes to job scope or conditions that do not impact safety may allow work to continue with a Take-A-Minute/2-Minute Drill.
 3. If a work stoppage is called, the employee in charge must give approval prior to restarting work activities following the 2-Minute Drill or additional job briefing.

Job Briefing Content

1. All documented and undocumented pre-job briefs shall include, at a minimum:
 - a. Job Scope and Preparation
 - i. Job scope
 - ii. Roles and responsibilities
 - iii. Qualifications and proficiency of workers
 - iv. Review stop work criteria
 - v. Work instructions
 - vi. Identify critical steps/tasks, if applicable
 - vii. Human performance tool use
 - b. Safety Awareness and Mitigation
 - i. Personal safety and Keys to Life
 - ii. Actions to take in the event of an emergency
 - c. Hazard Analysis and Mitigation
 - i. Existing (current) conditions
 - ii. Personal protective equipment (PPE)
 - iii. Job hazards
 - iv. Energy source controls

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- v. Risks to the environment
- vi. Error-likely situations with worst thing that can happen
- d. Operating Experience and Lessons Learned
 - i. Any applicable operating experience/lessons learned (OE/LL) associated with the job
 - ii. Special precautions
- 2. Only those items listed above that are applicable to the job need to be discussed.
- 3. Potential/Stored Energy not controlled by Lock-Out/Tag-Out must be assessed, mitigated and documented or discussed within the job briefing.
- 4. Additional content may be added to the job briefing, as directed by business unit-specific standards.

Extent of Pre-Job Brief

1. A brief discussion is satisfactory if the work involved is routine and if the worker, by virtue of training and experience, can reasonably be expected to recognize and avoid the hazards involved in the job.
2. A more extensive discussion shall be conducted if the work is complicated or particularly hazardous, or the worker cannot be expected to recognize and avoid the hazards involved in the job.

Electrical Lines and Equipment

1. The existing characteristics and conditions of electric lines and equipment that are related to the safety of the work to be performed shall be determined before work is started.
2. Discuss the following existing conditions during the job briefing where the job scope includes work on energized lines and equipment that are energized or that may become energized prior to the completion of work:
 - a. Nominal voltages of lines and equipment
 - b. Maximum switching transient voltages
 - c. Presence of hazardous induced voltages
 - d. Presence of protective grounds and equipment grounding conductors
 - e. Location of electrical circuits and equipment and fire-protective signaling circuits
 - f. Condition of protective grounds and equipment grounding conductors
 - g. Physical condition of poles utilized for the suspension of electrical lines or equipment

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- h. Environmental conditions relating to safety (i.e., presence of oil or contaminant, etc.)
3. This information can be determined through work planning processes such as work execution/work order packages, line drawings, planning meetings, written procedures, etc.

Documentation

1. Job briefings are required to be documented unless a specific exception has been established by the business unit. In general, documentation is not required for simple, low-risk tasks.
2. Undocumented pre-job briefs require use of an approved form or standard or visual aid, such as a visor card, lanyard card or handbook. Undocumented pre-job briefs may not be performed from memory.

Working Alone

1. Individuals working alone must conduct a job briefing.
2. The job briefing must include thinking through each task in the work activity and how to complete the job safely.
3. Documentation is not required unless specified by the business unit.

Special Situations

1. For traffic control situations (i.e., work zones), conduct job briefings away from traffic with a view of possible vehicle intrusion. Include contractors and law enforcement personnel. Work zone contractors must communicate with other job briefing participants and understand the following: work zone setup must comply with federal, state, county, city and local regulations; the flagger warning signal device that will be used to warn of danger; and the work zone contractors may stop work.
2. For vegetation management activities, job briefing shall include: a discussion of all personal protective equipment required including chain saw resistant leg protection; communication systems to be used (verbal, hand signals, radios); and the drop or fell zone.

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✪ Human Performance Tools

Human performance principles and tools can prevent undesirable events. The four fundamental human performance tools are listed here. Business units may provide additional human performance principles and tools.

Pre-Job Brief

- Deliberate meeting of job participants that focuses on understanding job scope, requirements, hazards, risks and defenses. Ensures needed preparation has been performed and workers are ready to perform the task safely and error-free.

2-Minute Drill/Take-A-Minute

- Final situational check before beginning a task to ensure conditions reflect those that are expected or were discussed during the pre-job brief and that the workers are re-focused on the critical aspects of the job.

Procedure Use and Adherence

- Ensures that work is performed safely and error-free by understanding and following procedures as written. Ensures that work is stopped when procedure guidance cannot be followed to correct the issue prior to continuing.

STAR – Stop/Think/Act/Review (Self-Checking)

- Ensures conscious and deliberate review of intended actions and expected results before performing a task. Ensures right action is performed, on the right component, at the right time. Verifies expected results are understood and achieved.

Health & Safety Sections

Abrasive Blasting/Spray Coating

Abrasive Blasting

1. Inspect abrasive blasting equipment before use. Check the static pressure drop of the exhaust ventilation system for the abrasive blasting room or booth. Refer to manufacturer's instructions.
2. Frequently check exhaust ventilation filters. Replace per manufacturer's instructions.
3. Ensure dust does not accumulate on the floor and aisles outside the blasting enclosure. Keep walkways clear of steel shot or similar abrasives, which may create a slipping hazard.
4. Use signs and/or ribbons to designate temporary blasting areas.
5. Before removing blasting hood, brush, dust or vacuum abrasives or other contaminants from the hood and cape.
6. At the end of the work shift, shower and change clothes when necessary to remove contaminants.
7. Before performing work to prevent buildup of static electricity, ensure blast hose is grounded to the pot.
8. Ensure blast equipment is maintained by qualified personnel familiar with the hazards.
9. Use the following personal protective equipment (PPE): work gloves, hearing protection, safety glasses, NIOSH-approved air-supplied blast hoods with capes or aprons.
10. Refer to the "Lead in Construction" program in the H&S Manual where exposure to lead is an issue. Check with your environmental professional for disposal guidance.

Spray Coatings

1. Be familiar with the Safety Data Sheet (SDS) for spray coating materials.
2. Ensure ventilation is adequate or wear respiratory protection.
3. Before each use, check the static pressure drop of the exhaust ventilation system for the spray room or booth. Follow manufacturer's instructions.
4. Designate temporary spray painting areas by using signs or warning tape.
5. Eliminate ignition sources in spray painting areas.
6. Inspect spray painting equipment before use.

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7. At the end of the work shift, shower and change clothing when necessary to remove contaminants.
8. Ensure airless spray guns that atomize paints and fluids at high pressures (1,000 pounds or more per square inch) are equipped with automatic or visible manual safety devices to prevent release of the paint or fluid until the safety device is manually released.
9. Use the following personal protective equipment: eye protection, respiratory protection as necessary and solvent-resistant gloves.

Aerial Lifts (Bucket Trucks and Digger Derricks)

1. Workers shall be trained prior to operating aerial lifts.
2. Workers shall conduct pre-flight inspection.
3. Use tag lines. Do not guide the load by pulling on the rigging.
4. Loads shall not be moved over personnel, and workers shall not walk under a suspended load.
5. Booms and attachments shall not be loaded beyond manufacturer's recommendations. This includes vertical and horizontal loading.
6. This equipment shall be stable in accordance with manufacturer's recommendations before it is operated. Outriggers, if equipped, shall be used.
7. The area on which outriggers will be placed shall be examined to determine if it is capable of supporting the load. Where necessary, outrigger pads or cribbing shall be added to ensure stability of the equipment.
8. When work is completed at any given location, the boom shall be properly racked and secured, outriggers fully retracted and wheel chocks stowed prior to moving the vehicle.
9. If the boom must be uncradled to position the vehicle on the job site to perform work, the vehicle shall be stable during positioning.
10. Level indicators, if equipped, shall be operable.
11. For additional details, see the applicable business unit work practices.

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Asbestos Management

1. Personnel working in facilities must be aware of the types of materials that are known or suspected to contain asbestos.
2. Personnel performing work activities in facilities where they have the potential to contact, but not disturb, asbestos-containing materials must have current Class IV asbestos training. Examples include generating plants, substations and underground vaults.
3. Treat any suspect materials as asbestos-containing unless documentation and bulk samples are on file disputing the presence of asbestos.
4. Stop work if at any time you are unsure that the material you are working on contains asbestos. Do not resume work until the material has been sampled and verified as non-asbestos.
5. Ensure you have current training in the appropriate asbestos discipline (supervisor, worker, inspector and project designer). Some states may use different terms for similar functions.
6. When required by the applicable state agency, maintain current accreditations and/or licenses per discipline.
7. During the planning process, project managers/work planners shall consider the possibility of disturbing suspect asbestos-containing building materials by ensuring an inspection of the materials is performed before the work begins.
8. If you are working on known or suspect asbestos, use identified work practices, engineering controls and PPE including respirators based on the work activity being performed.
9. Regardless of exposure levels always:
 - a. Use high-efficiency particulate air (HEPA) vacuums to collect dust/debris.
 - b. Use wet methods to control exposures unless the methods create an electrical or slipping hazard in roofing operations.
 - c. Promptly clean up asbestos-containing material (ACM).
10. Regardless of exposure levels, the following asbestos work activities are prohibited:
 - a. High-speed abrasive disk saws without HEPA-filtered exhaust
 - b. Compressed air to remove asbestos
 - c. Dry sweeping of ACM
 - d. Worker rotation to reduce asbestos exposures
11. Regulated areas, including appropriate signage, must be established for Class I, II or III work activities.

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12. Supervision of asbestos-related jobs must be conducted by a competent person based on the level of asbestos work.
13. Depending upon the level of asbestos work activity and the material being disturbed, showers may be required at the completion of the task or completion of the shift. Wastewater from asbestos showers must be collected and filtered.
14. Employees performing asbestos Class I, II or III work activities for 30 days or more per year, or who are exposed above the permissible exposure limit (PEL) or excursion limit (EL), shall be included in an asbestos medical surveillance program.
15. If required to use a respirator, follow the requirements for your respiratory protection program.
16. Seal waste in leak-tight containers.
17. All ACM waste must be labeled appropriately, stored in secure ACM waste storage areas and disposed of in Duke Energy-approved landfills.
18. All projects involving the demolition or renovation of a structure must be inspected for asbestos-containing building materials and permitted by the appropriate state agency.
19. Contractors performing asbestos abatement or monitoring services shall follow the Duke Energy Asbestos Abatement and Air Monitoring Standard.

Avoiding Illness from Insects, Ticks and Snakes

1. When working outside, be aware of the hazards of insects, wasps, yellow jackets and ticks.
2. Use insect repellent according to the manufacturer's instructions.
3. When working in an outside environment where ticks are likely to be present, avoid tick-related illness by:
 - a. Dressing appropriately. Tuck pant legs in and wear long-sleeved shirts.
 - b. Using tick repellent. Apply DEET to skin and permethrin to clothing. Do not apply DEET to flame-resistant clothing.
 - c. Remove embedded ticks. Wash area with warm soapy water.
 - d. Reporting tick bites to your supervisor. This aids in diagnosis of symptoms later.
4. Be on the lookout for yellow jackets. Do not reach into areas where yellow jackets may be nesting.
5. Seek medical treatment if you exhibit symptoms of illness or allergic reaction to bites or stings.

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6. When working in areas where snakes could be present, take the following precautions:
 - a. Wear above-the-ankle boots or protective snake-proof chaps/gaiters.
 - b. Be alert when walking through underbrush or areas obscured by foliage. Walk slowly and give snakes time to get out of your way.
 - c. Be careful when placing feet and hands. Do not put hands under objects or materials that obscure your ability to see snakes that may be underneath.
 - d. Be cautious when moving rocks or moving around or over rocky terrain.
 - e. Probe areas before stepping over logs or piles of brush or debris.
 - f. If bitten by a snake, get immediate medical attention.

Bicycle/Tricycle Safe Operation

1. Carry only the number of persons for which the bicycle/tricycle is designed and equipped.
2. Operators and passengers shall ride only on seats.
3. Ride only bicycles/tricycles that are equipped with an audible warning device (bell or horn) and brakes.
4. Operate bicycles/tricycles before sunrise or after sunset only if equipped with a lamp on the front and lamp or reflector on the rear.
5. Avoid distractions. Do not carry objects or utilize radios or mobile devices while operating a bicycle/tricycle.
6. Be observant of pedestrians and obey posted traffic signage.
7. Wear bicycle helmet or hard hat with chin strap and reflective apparel.

Bloodborne Pathogens

1. Prevent contact with the eyes, mouth, mucous membranes and non-intact skin with blood or other potentially infectious body fluids. Follow established procedures and universal precautions to prevent contact.
2. If possible, assist injured personnel without exposing yourself to fluids that can be infected with bloodborne pathogens.
3. At a scene with bloody conditions, remain calm, place a barrier between you and the injured person, control bleeding and notify emergency personnel.
4. Do not handle bloody clothing or contact contaminated surfaces unless you are trained and use proper personal protective equipment.

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5. Cleanup shall only be performed by trained and properly equipped personnel.
6. Use the prescribed engineering controls and personal protective equipment.
7. Report to supervisor any contact with potentially infectious body fluid or material.

Compressed Gas Cylinders

1. Handling and moving gas cylinders:
 - a. Where removable caps are provided for valve protection, such caps shall be kept on cylinders at all times, except when cylinders are in use.
 - b. Do not lift cylinders by the cap.
 - c. Never drop cylinders or permit them to strike against other objects.
 - d. Avoid dragging or sliding cylinders.
 - e. Never use cylinders as roller supports or for any purpose other than to contain the content as received.
 - f. Never handle the cylinder with a lifting magnet. Slings, ropes or chains shall not be used unless provisions have been made on the cylinder for appropriate lifting devices, such as lugs.
 - g. Use suitable hand trucks, fork truck roll platform or similar device with cylinder firmly secured for transporting and unloading.
 - h. Open cylinder valve slowly. Point the valve opening away from you and other persons. Avoid the use of a wrench on valves equipped with hand wheels. Never hammer the valve wheel when attempting to open or close a valve.
 - i. Personal protective barricading facilities shall be provided when transferring gases from one cylinder to another.
 - j. Cylinder valves shall be closed before moving cylinders, when work is finished and when cylinders are empty. Before regulator is removed from the cylinder, release all pressure from the regulator.
 - k. Empty cylinders shall be marked "Empty" or "MT," segregated from full cylinders and returned to the supplier with all valves closed and valve protection caps in place.
2. Storage of gas cylinders
 - a. Cylinders shall be stored in accordance with SDS or other guidance provided for a specific gas.
 - b. Cylinders shall not be stored near highly flammable substances.

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- c. Cylinders shall be kept away from radiators or other sources of heat.
 - d. Do not store cylinders where they could become part of an energized circuit.
 - e. Cylinders shall be stored in assigned places, away from elevators, stairs or gangways. Assigned storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects.
 - f. Cylinders shall not be stored in unventilated enclosures.
 - g. Compressed gas cylinders not designed to be used or stored horizontally shall be tightly secured above the midpoint in an upright position at all times except, if necessary, for short periods of time while cylinders are being moved with appropriate equipment.
 - h. Cylinders stored on mobile vehicles shall be secured in an upright or horizontal position and guarded to prevent any damage or movement. Regulators and gauges shall be removed from compressed gas cylinders while in transit unless designed for that purpose.
 - i. Cylinders shall be protected from rusting.
 - j. Cylinders shall be hydrostatically tested according to standards of Compressed Gas Association Inc.
 - k. Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials (especially oil or grease) by a minimum distance of 20 feet, or by a noncombustible barrier at least 5 feet high with a fire-resistance rating of at least one-half hour.
 - l. Oxygen and acetylene can be stored on dolly cart with regulators attached if the cart has a fire-rated barrier separating the cylinders. Without a fire-rated barrier, store cylinders on carts with regulators attached only if it is anticipated that they will be used within 24 hours.
3. When using compressed air for cleaning, reduce air pressure to 30 psi or less or ensure that safety nozzle is installed on the blow down device.
 4. Compressed air hoses with an inside diameter exceeding one-half inch must have a safety device at the source of supply or branch line to reduce pressure in case of hose failure or disengagement of a connection.
 5. Petroleum-based products shall not be used on any equipment where oxygen passes. Keep valves, torches and regulators of oxygen and fuel gas cylinders free of oils, grease and other combustibles.

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Confined Space Entry

1. All workers involved in confined space entries must be trained to perform their confined space entry duties.
2. Follow the applicable business unit or site program for the location involved.
3. Do not enter any confined space without (at minimum) authorization and a pre-entry briefing from an entry supervisor. Do not enter a confined space unless there is a business need to do so.
4. Entry into a confined space shall not be performed unless a comprehensive hazard evaluation has been completed and the applicable site operating experience has been reviewed for the confined space, including lockout/tagout isolation.
5. Prior to entry into a permit-required confined space:
 - a. Entry supervisor shall be designated to oversee entry and shall fulfill Duke Energy's duty to reduce any serious hazard to the extent feasible or eliminate it.
 - b. Entry supervisor shall complete and sign an entry permit to authorize entry.
 - c. Rescue shall be pre-planned and rescue equipment shall be put in place.
6. Contractors and subcontractors may use their company program if approved in advance by a Duke Energy representative.

Cranes and Rigging

General

1. Workers shall be trained and qualified prior to operating cranes. In addition, certain mobile crane operators are required to be certified.
2. Workers shall operate equipment and conduct pre-operational inspections according to the operator's manual.
3. All cranes and hoists will be inspected by the operator prior to the operation of the equipment.
4. All lifts require planning. A pre-lift planning session shall be held for all personnel involved with the lift.
 - a. Load weight, size and distance shall be determined to ensure that the proper equipment is available to make the lift safely.
 - b. Riggers and equipment operators shall determine the weight of the load to be handled and the capacity of handling devices before moving the load.

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- c. Lifting plans must be documented as described in the H&S Manual Crane and Rigging Program.
5. Outriggers shall be extended according to the manufacturer's load charts.
6. Cribbing shall be used as needed to level the crane and ensure stability based on soil class.
7. Crane setup location shall be established to ensure safe lifting capabilities and avoidance of obstacles.
8. Loads shall be guided by tag lines and not by pulling on the rigging.
9. Tag lines shall be of sufficient length to allow for proper control without placing worker under the load.
10. When extending or retracting the manual fly section (dead section), the operator shall ensure that it is properly pinned in place.
11. Drivers and/or operators of mobile cranes and trucks shall ensure that aerial ladders, lifts, booms, pole derricks, automatic lift gates and outriggers are in the proper position for work or travel.
12. When work is completed at any given location, the boom shall be lowered, retracted and secured and outriggers fully retracted before moving.

Housekeeping

1. Crane cabs and operator walk paths shall be kept clean and all litter removed at the end of each operation period.
2. Areas around the load pickup and setdown points shall be kept free of loose objects, material, etc. that may interfere with the safe operation of the lift.

Using Cranes to Lift Individuals

1. Lifting individuals using personnel baskets attached to a crane is allowed but shall be in strict compliance with OSHA requirements found in 1926.1431.

Keeping Clear of the Load

1. Hoist routes that minimize exposure of workers to hoisted loads shall be used.
2. While the operator is not moving a suspended load, no worker shall be within the fall zone, except for workers:
 - a. Engaged in hooking, unhooking or guiding a load
 - b. Engaged in the initial attachment of the load to a component or structure

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3. When workers are engaged in hooking, unhooking or guiding the load or in the initial connection of a load to a component or structure and are within the fall zone, the materials being hoisted must be rigged to prevent unintentional displacement; hooks with self-closing latches are required; and the materials must be rigged by a qualified rigger.

Rigging and Flagging

1. Workers shall be trained and qualified prior to conducting rigging and/or flagging.
2. The rigger is responsible for inspection and assembly of the rigging hardware and lifting equipment, as well as securing the load to the rigging hardware and lifting equipment. All rigging shall be inspected prior to use.
3. The rigger shall inform the flagger that the load is ready to lift.
4. The flagger is responsible for ensuring that the load is rigged satisfactorily, either by personal inspection or by verification with the rigger.
5. The flagger is responsible for directing the lift operation and communication with the lift equipment operator.
6. The flagger should wear a reflective vest and/or reflective gloves.
7. Flaggers for mobile cranes shall be qualified signal persons.
8. Roller block, hoist, lifting and mechanical pulling hooks shall be fitted with a safety latch or secured so that rigging components remain under control. Hooks designed to have a safety latch shall have the latch installed and, if inoperable or missing, the hook shall not be used.
9. Crane hooks shall not be painted.
10. Slings shall be used in accordance with the manufacturer's permanently attached identification markings.
11. If a rope is used as a sling for rigging and attached to a mechanical device, it shall have a splice in lieu of a knot. Anything being lifted by hand (on a hand line) can be lifted using a rope with a knot as long as the rope (including the knot reduction) is rated for the weight being lifted and it can be done safely.
12. When wrapping slings around sharp corners or edges, softeners or padding shall be used to prevent damage.
13. The manufacturer's recommendations for safe loading of ropes, cables, chains and slings shall not be exceeded.

Flagging and Emergency Stop

1. Throughout the entire lift, the equipment operator shall accept communications only from the designated flagger, except in emergency situations.

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2. The operator shall accept an emergency stop signal from anyone.
3. When there is a concern as to safety, the mobile crane operator has the authority to stop and refuse to handle loads until a qualified person has determined that safety has been ensured.

Nighttime Operations

1. Nighttime operations shall be conducted with adequate illumination of the pickup area, setdown area, the flagger, the boom tip and the load path (if the load path is not previously determined to be clear).
2. Nighttime crane operations where contact with energized electrical lines is possible shall not occur unless such lines can be adequately illuminated, de-energized or protected.
3. The crane operator shall determine the required illumination needed for safe operation.

Mobile Crane Setup

1. Cranes must not be assembled or used unless ground conditions are firm, drained and graded to a sufficient extent so that the equipment manufacturer's specifications for adequate support and degree of level are met.
2. The controlling entity (i.e., prime contractor, general contractor, construction manager or owner) must ensure that ground preparations necessary are provided and inform the crane operator of the location of hazards beneath the equipment setup area such as voids, tanks or utilities if those hazards are identified in drawings.
3. Adequate foundations for outriggers shall be determined by observation of the location area, available drawings and/or discussions with engineering.
4. Before extending the outriggers, check to see that all personnel are clear of area where the outrigger foot will be placed. To avoid injury to co-workers from contact with the outrigger, take actions such as discussions to cover safe work distance from the outriggers, verbal warnings and spotters to observe the outrigger movement.
5. Operators shall ensure that the crane setup area and outriggers are not located directly over embedded tanks, trenches, cableways, pipelines, basements, etc.
6. All foundations and surroundings shall be observed for changes and/or acceptability prior to lifting.
7. Bearing mats and blocking materials that satisfy the crane manufacturer's recommendations shall be provided with each mobile crane.

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8. Assembly/disassembly of a mobile crane must be directed by a qualified person, such as an experienced crane operator.
9. An experienced crane operator must perform a functional test and complete post-assembly inspection after assembly of a mobile crane before it is put back into service.

Power Line Safety

For operations near overhead power lines, a mobile crane operator must comply with these rules. This section does not apply to work on transmission and distribution lines and equipment.

1. Define the work zone.
2. Make a power line hazard assessment.
3. If any part of crane can get closer than trigger distance (20 feet for lines under 350 kilovolts (kV); 50 feet for lines over 350 kV) take additional steps. Select Option 1, 2 or 3:
 - a. Option 1: Have the lines de-energized and visibly grounded at the worksite.
 - b. Option 2: Maintain minimum clearance distance of 20/50 feet AND implement the "encroachment prevention measures."
 - c. Option 3: Maintain distances in Table 1 below. Determine the line's voltage by asking the utility AND implement the "encroachment prevention measures."
4. If Option 2 or 3 is selected, implement these encroachment prevention measures:
 - a. Conduct a planning meeting with the operator and other workers who will be in the area.
 - b. If used, tag lines must be nonconductive.
 - c. Erect elevated warning lines, barricades or line of signs.
 - d. In addition to the three measures above, also select one of these measures:
 - i. Use a proximity alarm.
 - ii. Use dedicated spotter (must be a qualified signal person).
 - iii. Use a device that automatically warns the operator to stop (range control warning device).
 - iv. Use device that limits range of movement.
 - v. Use an insulating link/device between the end of the load line and the load.

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Table 1: Required Clearances for Operations Near Overhead Power Lines

Normal Voltage, kV (phase-to-phase)	Minimum Required Clearance (feet)
0 to 50	10
Over 50 to 200	15
Over 200 to 350	20
Over 350 to 500	25
Over 500 to 750	35

Note: Minimum required clearance is 10 feet plus 4 inches for every 10 kV over 50 kV.

Cranes Traveling Under Power Lines

Cranes traveling under a power line with no load must comply with these rules. This does not apply to T&D crane operations.

1. The boom/mast and boom/mast support system must be lowered sufficiently to meet the requirements below.
2. The clearances specified in Table 2 must be maintained.
3. The effects of speed and terrain on crane movement (including movement of the boom/mast) are considered so that those effects do not cause the minimum clearance distances specified in Table 2 to be breached.
4. If any part of the equipment will get closer than 20 feet of the power line while traveling, the employer shall ensure that a dedicated spotter who is in continuous contact with the operator is used. The dedicated spotter shall:
 - a. Be positioned to effectively gauge the clearance distance.
 - b. Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator.
 - c. Give timely information to the operator so that the required clearance distance can be maintained.
 - d. Be a qualified signal person, completing signal person training and written and practical tests.
5. When traveling at night, or in conditions of poor visibility, the operator shall ensure that:
 - a. The power lines are illuminated or another means of identifying the location of the lines shall be used.
 - b. A safe path of travel is identified and used.

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Table 2: Minimum Clearance Distances While Traveling With No Load and Boom/Mast Lowered

Voltage (nominal, kV, alternating current)	While Traveling Minimum Clearance Distance (feet)
Up to 0.75	4 (while traveling/boom lowered)
Over 0.75 to 50	6 (while traveling/boom lowered)
Over 50 to 345	10 (while traveling/boom lowered)
Over 345 to 750	16 (while traveling/boom lowered)
Over 750 to 1,000	20 (while traveling/boom lowered)

Inclement Weather Mobile Crane Operation

1. When a local storm warning has been issued, a competent person must determine if it is necessary to implement manufacturer's recommendations for securing the equipment.
2. For adverse weather conditions, observe operating wind velocity limits of the equipment based on manufacturer's recommendations that consider wind loads on the surface area of the crane and the lifted load.
3. When inclement weather is imminent or anticipated, develop a lift plan and operating procedures that include termination of lifting activities at specified conditions, anchoring procedures, the lowering and tying down of boom using cribbing and the requirements for attaching load line to suitable anchors.
4. Discontinue operations when lightning is present and when visibility is insufficient.

Mobile Crane Operations on Barges

1. When operating a crane on a barge, develop a lift plan and comply with the requirements of OSHA 1926.1437 and ASME B30.8.

Planned Engineered Lifts

1. For overhead bridge and gantry cranes only, lifts in excess of the rated load must be conducted in compliance with ASME B30.2, Section 2-3.2.1.1.
2. These lifts are limited to cranes with load rating of 5 tons and above. Load shall not exceed 125 percent of rated capacity. Frequency shall not exceed two in a continuous 12-month period.
3. Crane manufacturer shall be consulted if the planned engineered lift exceeds 125 percent of rated load or if frequency exceeds two during a continuous 12-month period.

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4. Documented lift plan approved by an engineer is required.
5. For mobile cranes:
 - a. The equipment must not be operated in excess of its rated capacity.
 - b. Weight of load must be determined OR
 - c. Operator must begin hoisting the load to determine, using a load weighing device, load moment indicator, rated capacity indicator or rated capacity indicator if it exceeds 75 percent of the maximum rated capacity at the longest radius that will be used. If it does, the operator must not proceed with the lift until he verifies weight of the load.

Capacity of Slings and Shackles

1. Do not use any sling or shackle in excess of its rated capacity.
2. Do not use any sling unless it is marked with a tag that identifies size and rated capacity for types of hitches (e.g., vertical, basket, choker, etc.).
3. Do not use a wire rope sling unless it is marked with a tag that identifies the sling size, rated capacity for types of hitches, the angle upon which capacity is based and the number of legs if more than one. Remove unmarked wire rope slings from service until the capacity can be determined by the manufacturer, a vendor or a Duke Energy rigger and a new tag is applied.

Dropped Object Prevention in Fossil Generating Stations

1. Contractors performing work at Duke Energy facilities shall implement a dropped object prevention program. Contractor's dropped object prevention program shall be submitted to Duke Energy for review and acceptance. Contractor shall address equipment/materials/tools security and dropped-prevention system and control requirements in the site-specific health and safety plan.
2. When workers are exposed to falling objects, each worker shall wear a hard hat and shall implement one of the following measures.
 - a. Install barricading: Red Danger barricade with appropriate signage shall be established in areas where objects could fall from elevated work areas. The barricade shall prohibit workers from entering the affected area and shall be large enough to confine dropped objects.
 - b. In the event that an exclusion zone cannot be established with red barricade, or is physically not feasible, netting or other secondary catchment material shall be utilized locally at the work location to prevent the object from falling to the next level.

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3. Additionally, where objects are stored on platforms and scaffolds, the following measures shall be implemented to prevent objects from falling from the platform.
 - a. Erect toe boards, screens or guardrail systems to prevent objects from falling from higher levels.
 - b. Erect a canopy structure and keep potential falling objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced.
 - c. Barricade the area to which objects could fall, prohibit workers from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced.
4. Falling object protection shall comply with the following provisions:
 - a. Toe boards, when used as falling object protection, shall be erected along the edge of the overhead walking/working surface for a distance sufficient to protect workers below.
 - b. Toe boards shall be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point along the toe board.
 - c. Toe boards shall be a minimum of 4 inches vertical height from their top edge to the level of the walking/working surface. They shall have not more than ¼-inch clearance above the walking/working surface. They shall be solid or have openings not over 1 inch in greatest dimension.
 - d. Where tools, equipment or materials are piled higher than the top edge of a toe board, paneling or screening shall be erected from the walking/working surface or toe board to the top of a guardrail system's top rail or midrail, for a distance sufficient to protect workers below.
 - e. Guardrail systems, when used as falling object protection, shall have all openings small enough to prevent passage of potential falling objects.
 - f. Debris netting shall be installed on guardrail systems where work is being performed.
 - g. Debris netting shall have openings no greater than ½ inch to prevent objects from passing through.
 - h. Debris netting utilized for below work protection shall have openings small enough to prevent passage of potential falling objects.

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5. Prevent dropping of tools and equipment:
 - a. Secure hand tools and equipment when working at heights.
 - b. If using tethers, ensure they are intended for the purpose and inspected before and after each use.
 - c. Tools weighing more than 5 pounds should not be attached to a person.
 - d. Ensure tethers are nonconductive when working around electrical equipment.
 - e. Do not use tethers around rotating equipment.

⊕ Dropped Object Prevention Plan for Other Business Units

1. Contractors performing work near or adjacent to Duke Energy employees or other contractors shall implement a dropped object prevention program to mitigate "Line of Fire" hazards that include, but is not limited to, the barricading of work zones; securing tools and materials; and providing netting or canopies below the work areas.
2. Contractors shall protect against "struck by" hazards including falling, flying and moving objects. Protection for these hazards shall be discussed and mitigated prior to starting work. Three-way communication shall be maintained when entering and exiting work areas.

Electrical Safety for Transmission, Distribution and Metering

⊕ Cardinal Electrical Safety Rules (CESR)

1. Follow the Cardinal Electrical Safety Rules in Transmission and Customer Delivery.
 - a. Cover Up/Insulate and Isolate
 - b. Grounding/Zero Energy Check
 - c. Electrical Safety PPE

Medical Services and First Aid

1. For transmission and distribution work, when two or more workers are working on exposed energized equipment, at least two persons trained in first aid/CPR shall be present.
2. First-aid kits in weatherproof containers shall be readily accessible at all T&D work locations. For line crews, first-aid kits shall be inspected at least annually. At construction sites, first-aid kits shall be inspected weekly.
3. When the eyes or body parts may be exposed to corrosive materials or chemicals, emergency eyewash facilities shall be available.

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Personal and Electrical Protective Equipment

1. All personal protective equipment shall be properly worn, per manufacturer's instructions.
2. Wear hard hats where there is possible danger of head injury from impact, bumping, falling or flying objects, electrical shocks or burns. In addition, hard hats are required when there is a need for public identification of a company employee.
3. Wear safety glasses where there is possible danger of eye injury from impact, flying objects, electrical flash or burns. Safety glasses must comply with ANSI Z87.1.
4. Before each day's use, inspect electrical protective equipment for visible defects.
5. Air test rubber gloves before each day's use and immediately after any incident that is suspected of causing damage.
- ★ 6. Electrical protective equipment used by Duke Energy employees shall be tested as shown. Contractors follow OSHA testing frequency. Do not use equipment if the test date is exceeded.

Test Frequency:

Rubber gloves	4 months
Rubber sleeves	4 months
Blankets	12 months
Line hose.....	12 months

7. If a defect is found during inspection of personal protective equipment, electrical protective equipment or live-line tools, the equipment must be marked defective and not used. Return rubber goods for retest if they are suspected to be defective.
8. Wear leather glove protectors over rubber gloves at all times. Do not use leather glove protectors for any other purpose.
- ★ 9. Employees wear rubber gloves or gloves and sleeves in work situations as described in detail in the T&D Work Methods Manuals. Contractors follow employer PPE or work practice requirements.
- ★ 10. Work shoes should have substantial uppers made of leather or the equivalent, cover the entire foot with no openings, provide ankle support, and have slip-resistant soles. Office environment footwear should minimize the potential for slipping or tripping. Wear EH (electrical hazard) shoes as required by the Work Methods Manual. Contractors follow employer PPE or work practice requirements.

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Fall Protection

- ★ 1. Before climbing a wood pole, workers must determine if the pole is safe to climb as described in the Inspecting and Testing Poles and Structures section of this handbook.
2. Before climbing towers, carefully examine to ensure they are safe and inspect base for corrosion or structural defects.
3. Workers shall use fall protection (harness and lanyard connected to lifeline or anchorage point) at all times when working at elevated locations and when ascending, descending or changing locations on steel towers, steel poles, concrete poles and substation structures.
4. Use full body harness with shock-absorbing lanyard when working out of a bucket truck, on an aerial platform, or on top of transformers or other equipment.
5. Workers climbing distribution and transmission class wood poles shall use fall protection equipment while ascending, descending and changing locations on a pole. This shall consist of a BuckSqueeze or similar equipment. Work positioning equipment alone is not allowed.

Live-line Tools

1. Visually inspect live-line tools and wipe them clean before use each day. If a defect or contamination could adversely affect the insulating quality or the mechanical integrity of the tool, remove it from service and have it tested before returning to service.
2. Clean/wax live-line tools used by Duke Energy employees every six months or as indicated by daily inspection.
3. Every two years, live-line tools shall be examined, cleaned, repaired if necessary and electrically tested as indicated in item 4.
4. Test all live-line tools manufactured to ASTM F711 used by Duke Energy employees every two years. This includes:
 - a. Telescopic sticks and measuring sticks
 - b. Shotgun sticks
 - c. Switch sticks, hot cutters, T-handles and link sticks
 - d. Extendo sticks

Materials Handling and Storage

1. In areas not restricted to qualified workers, do not store materials closer to energized lines or exposed energized parts than 10 feet for lines 50 kV and less. For lines over 50 kV, the distance is 10 feet plus 4 inches for every 10 kV over 50 kV.

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Working On or Near Exposed Energized Parts – General

1. Consider electric lines and equipment energized unless they have been properly isolated, tested for voltage and grounded.
2. Only qualified workers shall work on or with exposed energized lines or parts and in areas containing unguarded, uninsulated energized lines or parts of equipment at 50 volts or more.
3. When working around exposed energized parts, workers shall use proper protective equipment and work practices and comply with minimum approach distances.
4. Avoid positions where a shock or slip could expose the body to equipment at a potential different from the body.
5. When installing or removing fuses with one or both terminals energized at more than 300 volts or with exposed parts over 50 volts, use the appropriate tools or gloves. When installing expulsion-type fuses with one or both terminals energized over 300 volts, wear safety glasses or goggles, stay clear of the fuse barrel exhaust path and use tools rated for the voltage.
6. Ensure devices used to open circuits under load are designed to interrupt the current involved.
7. At least two workers shall be present for this work:
 - a. Installation, removal or repair of lines over 600 volts
 - b. Installation, removal or repair of de-energized lines if a worker is exposed to contact with other parts over 600 volts
 - c. Installation, removal or repair of transformers, capacitors and regulators if the worker is exposed to parts over 600 volts
 - d. Work involving the use of mechanical equipment, other than insulated aerial lifts, near parts over 600 volts
8. Workers may work alone for:
 - a. Work involving equipment energized at 600 volts or less
 - b. Routine switching of circuits, if conditions at the site allow the work to be done safely
 - c. Work done with live-line tools if the worker is not within reach or otherwise exposed to contact with energized parts
 - d. Emergency repairs (e.g., power restoration) to the extent necessary to safeguard the general public

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Table 3: Minimum Approach Distances for Voltages of 72.5 kV and Less

Nominal voltage phase-to-phase	Distance	
	Phase-to-ground exposure	Phase-to-phase exposure
50 to 300 volts	Avoid contact	Avoid contact
301 to 750 volts	1 ft. 1 in.	1 ft. 1 in.
751 volts to 5.0 kV	2 ft. 1 in.	2 ft. 1 in.
5.1 to 15.0 kV	2 ft. 2 in.	2 ft. 3 in.
15.1 to 36.0 kV	2 ft. 7 in.	2 ft. 11 in.
36.1 to 46.0 kV	2 ft. 10 in.	3 ft. 3 in.
46.1 to 72.5 kV	3 ft. 4 in.	4 ft.

Table 4: Minimum Approach Distances for Voltages of More than 72.5 kV

Voltage range phase-to-phase (kV)	Distance	
	Phase-to-ground exposure	Phase-to-phase exposure
72.6 to 121.0 kV	3 ft. 9 in.	4 ft. 8 in.
121.1 to 145.0 kV	3 ft. 10 in.	4 ft. 10 in.
145.1 to 169.0 kV	4 ft. 4 in.	5 ft. 5 in.
169.1 to 242.0 kV	5 ft. 8 in.	8 ft. 5 in.
242.1 to 362.0 kV	9 ft. 2 in.	14 ft. 9 in.
362.1 to 420.0 kV	9 ft. 2 in.	14 ft. 9 in.
420.1 to 550.0 kV	11 ft. 11 in.	20 ft. 4 in.
550.1 to 800.0 kV	15 ft. 10 in.	27 ft. 10 in.

Notes:

1. Minimum Approach Distances based on worksites at elevations of 3,000 feet or less. Altitude correction is required over 3,000 feet.
2. Phase-to-ground distances assume using live-line tools in the air gap.
3. Phase-to-phase distances assume no live-line tool spans the air gap and no large conductive object is in the air gap. If a live-line tool spans the air gap or a large conductive object is in the air gap between phases, the required phase-to-phase distance can be determined by increasing the applicable voltage range Phase-to-Phase Exposure Distance by 10 percent or by requesting an engineering evaluation.

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- e. Substation work not involving direct contact with live parts or climbing on structures
- f. Opening disconnects with live-line tools

Working On or Near Exposed Energized Parts – Making Connections

1. If connecting de-energized equipment or lines to an energized circuit using a conducting wire or device, attach the wire to the de-energized part first.
2. If disconnecting, remove the source end first, and keep loose conductors away from exposed energized parts.
3. When lines or equipment are connected to or disconnected from energized circuits, keep loose conductors away from exposed energized parts.

Working On or Near Exposed Energized Parts – Minimum Approach Distances

1. No worker shall approach or take any conductive object closer to exposed energized parts than the minimum approach distances unless:
 - a. The worker is insulated from the energized part with rubber gloves or rubber gloves and sleeves AND the worker has positive control of the energized part.
 - b. The energized part is insulated from the worker and from any other conductive object at a different potential OR
 - c. The worker is insulated from any other exposed conductive object in accordance with requirements for live line bare hand work.
2. For voltages of 72.5 kV and less, utilize the minimum approach distances in Table 3 at elevations less than 3,000 feet. For voltages over 72.5 kV, utilize the minimum approach distances in Table 4 at elevations less than 3,000 feet.
3. Altitude correction is required over 3,000 feet elevation.
4. When a worker uses rubber gloves, he or she shall also use rubber sleeves UNLESS:
 - a. Exposed energized parts on which the worker is not working are insulated from the employee AND
 - b. When installing insulation for purposes of isolation, the worker installs the insulation from a position that does not expose his or her upper arm to contact with other energized parts.
- ★ 5. See T&D Work Methods Manual for requirements for the use of rubber gloves. Contractors follow employer PPE or work practice requirements.

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6. Low-voltage gloves (Class 0) with protectors are allowed on secondary voltages with management approval.

Working On or Near Exposed Energized Parts – Protective Cover-up

- ★ 1. When working on or near energized or de-energized conductors, neutrals or equipment, cover conductors or equipment you may contact. See the Work Methods Manual for examples of proper work methods for using protective insulating equipment. Contractors follow employer work practice requirements.
2. Inspect protective cover-up equipment visually before using to ensure they are in good condition and suitable for the purpose and within test dates.
3. Remove defective equipment from service and mark as defective.

Working On or Near Exposed Energized Parts – Apparel/Arc Flash Protection

- ★ 1. Wear flame-resistant (FR) clothing for electrical hazards as described in the Work Methods Manual. Contractors follow the Supplemental Requirements.
2. Wear natural fiber garments under FR clothing. Do not wear undergarments made of acetate, nylon, polyester, rayon or polypropylene.
3. Outer layers of clothing shall be flame-resistant under any of these conditions:
 - a. Worker is exposed to contact with circuits energized at more than 600 volts or
 - b. Electric arc could ignite flammable material in the work area that could ignite the worker's clothing or
 - c. Molten metal or electric arcs from faulted conductors in the work area could ignite the worker's clothing or
 - d. Estimated incident energy exceeds 2.0 cal/cm².
4. Wear hand protection for electrical hazards. Hand protection shall consist of rubber gloves with leather protectors where there is a contact hazard or for work inside minimum approach distance. For work with an arc flash hazard but no contact hazard, heavy-duty leather work gloves shall be worn for exposures up to 14 cal/cm². Over 14 cal/cm², arc-rated gloves are required.
5. Where flame-retardant clothing is worn for exposures exceeding 2 cal/cm², long sleeves are required.

Jewelry and Conductive Articles

1. No jewelry or conductive articles shall be worn by workers within the work zone while performing or observing physical work, other than in an office type environment or while driving. This includes loading and unloading

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material and any work at a job site or substation. This includes but is not limited to: finger rings, necklaces, earrings, body piercings, chains, wrist bands, wrist watches, key rings/chains, metal or plastic bracelets, or studs.

2. Eyeglasses and MedicAlert necklaces and bracelets are not considered jewelry and are exempt from this requirement. However, MedicAlert necklaces and bracelets shall be worn under FR clothing or rubber protective gloves if working on energized conductors.
3. If there is a business need for a Bluetooth device to be worn on a job site, workers must conduct a hazard assessment to ensure that wearing the device will not put the worker(s) at risk for injury or cause distraction if a call is received. Bluetooth devices shall never be worn within minimum approach distance, when working from an aerial lift or aloft, or in a gaseous atmosphere.

Working On or Near Exposed Energized Parts – Face Protection

1. In addition to hard hat and safety glasses, arc-rated face and head protection is required for tasks exceeding the exposures shown here.
 - a. Single-phase arc: Arc-rated face shields over 9 cal/cm². Arc-rated hood or face shield with balaclava over 13 cal/cm².
 - b. Three-phase arc: Arc-rated face shield over 5 cal/cm². Arc-rated hood or face shield with balaclava over 9 cal/cm².
2. Face shields and approved safety glasses with side shields shall be used for these tasks when the systems are energized:
 - a. Setting or removing three-phase self-contained meters (non-T-Rated)
 - b. Working on all K-type meter bases
 - c. Connecting or disconnecting underground parallel services

Insulated Hand Tools

1. If hand tools are used in, on or near exposed energized conductors or parts and the hand tool could make contact with other differences of potential (i.e., conductors, grounded cabinets, etc.), the hand tool shall be an approved insulated type.
2. Before using insulated tools, visually inspect them to ensure the insulating material is not damaged.
3. Use insulated tools only for their designated purposes. Do not use insulated hand tools on circuits over 1,000 volts.
4. Insulated tools shall be marked with double triangles by the manufacturer to indicate they were manufactured and tested in compliance with ASTM F1505, Standard Specification for Insulating and Insulated Hand Tools.

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5. Coverings on the handles of tools not marked with double triangles shall not be considered as insulation.
6. Wear rubber gloves with insulated hand tools if the work could cause the minimum approach distance to be violated.
7. Additional business unit guidance may apply.

De-energizing Lines and Equipment for Worker Protection

1. Before considering lines and equipment to be worked on as de-energized, ensure they are de-energized as described below, tested for voltage and grounded.
2. For systems under the control of a dispatcher or operator, obtain a clearance to de-energize the lines according to standard operating procedures.
3. De-energize lines and equipment by opening the proper switching device such as disconnects, interrupters, circuit breakers, reclosers, line switches or fuses.
4. For systems not under the control of a dispatcher or operator, isolate lines by doing one or more of the following:
 - a. Removing fuses
 - b. Disconnecting recloser leads
 - c. Opening switches
 - d. Removing jumpers
5. Render inoperable as design permits and tag the following:
 - a. Automatically and remotely controlled switches that could cause the opened disconnection means to close (tag at the point of control)
 - b. All switches, disconnects, jumpers, taps and other means through which electricity may be supplied to the lines and equipment
6. Tags used in accordance with jurisdictional switching and tagging manuals shall prohibit operation of the disconnecting means and indicate that workers are at work.
7. If design permits, render the recloser inoperable and tag it; remove source or load-side leads of the recloser or open source or load-side disconnects of the recloser for a visual open point. For parking the leads, use stand-off tool.
8. Render inoperable any disconnecting means that are open to protect workers and that are accessible to the public.
9. Test to verify that the lines and equipment are de-energized.
10. Install grounds as outlined in "Grounding" in this document.

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11. To release a clearance, the worker in charge shall:
 - a. Notify the crew.
 - b. Determine that everyone is clear of the lines and equipment.
 - c. Remove all protective grounds.
 - d. Report this information to the system operator and release the clearance.
12. Do not re-energize lines until all grounds have been removed; all crews have released their clearances; all workers are clear of the lines and equipment; and all tags have been removed.
13. If two or more crews will be working on the same lines or equipment
 - a. The crews shall coordinate their activities with a single employee in charge of the clearance for all of the crews and follow the requirements of this section as if all of the workers formed a single crew OR
 - b. Each crew shall independently comply with this section and, if there is no system operator in charge of the lines or equipment, shall have separate tags and coordinate de-energizing and re-energizing the lines and equipment with the other crews.

Grounding for the Protection of Workers

1. Before considering lines and equipment to be worked on as de-energized, ensure they are de-energized as described above, tested for voltage and grounded as described here.
2. If installing a ground is impractical or would create greater hazards, treat the lines and equipment as de-energized if all the following conditions are met:
 - a. The lines and equipment are de-energized as required.
 - b. Contact with another energized source is not possible.
 - c. No hazard of induced voltage exists.
3. Before installing grounds on a supposedly de-energized circuit, visually inspect the grounding equipment.
4. To verify that the circuit has been de-energized, use an approved voltage testing device to check for voltage on the conductors to be grounded.
5. Place temporary protective grounds at such locations and arrange in such a manner as to prevent each worker from being exposed to hazardous differences in electrical potential.
6. Ensure protective grounding equipment:
 - a. Is capable of conducting the maximum fault current that could flow at the point of grounding for the time necessary to clear the fault

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- b. Has an ampacity greater than or equal to that of No. 2 AWG copper (Duke Energy requires 2/0 in most applications)
 - c. Has an impedance-to-ground low enough to cause immediate operation of protective devices in case of accidental energizing of the lines or equipment
7. If there is no previously installed ground, test lines and equipment before installing any ground to ensure they are free of nominal voltage.
 8. If attaching grounds to lines or equipment, attach the ground-end connection first; then attach the other end using live-line tools.
 - a. Do not allow your body to come in contact with the grounding cable. Do not hold a grounding cable or clamp in your hand while installing grounds with a live-line tool.
 9. When a ground is to be removed, the grounding device shall be removed from the line or equipment using a live-line tool before the ground-end connection is removed.
 10. If work is performed on a cable at a location remote from the cable terminal and the hazardous transfer of potential is possible should a fault occur, do not ground the cable at the cable terminal.
 11. Grounds may be removed temporarily during tests. During the test, use insulating equipment and other measures necessary to protect exposed workers in case the lines and equipment become energized.
 12. When attaching grounds to and when removing grounds from de-energized lines or equipment, wear hard hat, safety glasses, rubber gloves and flame-resistant clothing. Note: Rubber gloves are not required in Transmission when using live-line tools to attach grounds.

Mechanical Equipment

1. Inspect the critical safety components of mechanical elevating and rotating equipment on each shift the equipment is used.
2. Do not operate vehicular equipment with an obstructed rear view on off-highway job sites that expose workers to hazards created by the moving vehicle unless the vehicle has a reverse signal alarm audible above the surrounding noise level or it is backed up only when a designated worker signals that it is safe to do so.
3. If the suspended load of a line truck endangers any workers, do not leave the controls of the truck.
4. If vehicular equipment includes outriggers:
 - a. Operate with the outriggers extended and firmly set as necessary to keep the vehicle stable.

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- b. Do not extend or retract outriggers outside of operator's clear view unless all workers are outside the range of possible equipment motion.
5. Use lifting equipment within its maximum-load rating and other design limitations for the work conditions.
6. Mechanical equipment shall be operated so that the minimum approach distances in Tables 3 and 4 are maintained from exposed energized lines and equipment.
 - a. However, the insulated portion of an aerial lift operated by a qualified worker in the lift is exempt from this requirement if the applicable minimum approach distance is maintained between the uninsulated portions of the aerial lift and exposed objects having a different electrical potential.
7. Ensure a designated worker other than the operator observes the approach distance to exposed lines and gives timely warnings before the approach distance is reached (not required if operator can safely determine distance alone).
8. If mechanical equipment could become energized when used around overhead power lines, ground the equipment as described in Work Methods Manual. Contractors follow employer grounding requirements.

Overhead Lines

1. Before climbing, installing or removing any equipment, determine the amount of additional or unbalanced stress a pole or tower can handle; if necessary, support the pole or tower with braces.
2. When poles are set, moved or removed near overhead conductors, avoid direct contact of the pole with energized conductors.
3. When handling poles near overhead power lines, wear appropriate electrical protective equipment.
4. Install pole covers or cover conductors when setting a pole in or near conductors energized at primary voltage.
5. Do not contact the poles with uninsulated body parts.
6. Guard pole holes in areas where employees are working or provide an attendant.
7. To minimize the possibility that conductors and cables being installed or removed will contact energized lines or equipment, take precautions (e.g., using barriers or the tension-stringing method).
8. If installing or removing conductors that cross over energized conductors in excess of 600 volts, render inoperative the automatic reclosing feature for the

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- energized lines if permitted by the design of the circuit-interrupting devices protecting the lines.
9. Determine the voltage to be induced in the new lines before lines are installed parallel to existing energized lines.
 10. If hazardous voltage induction is possible, do the following:
 - a. Ground each bare conductor so that no point is more than 2 miles from a ground.
 - b. Do not remove the grounds until the conductor installation is completed between dead ends.
 - c. Remove grounds as the last phase of aerial cleanup.
 - d. If working on bare conductors, install grounds at:
 - i. Each work location where the workers are working.
 - ii. All open dead-end or catch-off points or the next adjacent structure.
 - iii. If splicing two bare conductors, bond and ground the conductors before splicing.
 11. Keep reel handling equipment, including pulling and tensioning devices:
 - a. In safe operating condition
 - b. Leveled
 - c. Aligned
 12. Do not exceed load ratings of stringing lines, pulling lines, conductor grips, load-bearing hardware and accessories, and rigging and hoists.
 13. Repair or replace defective pulling lines and accessories.
 14. Do not use conductor grips on wire rope, unless the grip is specifically designed for the application.
 15. Maintain reliable communications, through two-way radio or the equivalent, between the reel tender and the pulling-rig operator.
 16. Operate the pulling rig only when it is safe to do so.
 17. While the conductor or pulling line is being pulled (in motion) with a power-driven device, do not stand directly under overhead operations or on the cross arm, except as necessary to guide the stringing sock or board over or through the stringing sheaf.

Towers and Structures

1. Unless assisting workers working above, do not stand under a tower or structure while work is in progress.

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2. Unless it is more hazardous, use tag lines or other similar devices to maintain control of tower sections being raised or positioned.
3. Do not detach the load line from a member or section until the load is safely secured.
4. Discontinue work when adverse weather conditions make the work unusually hazardous, except during emergency power restoration procedures.

Underground Electrical Installations

1. Use protective equipment and follow work practices when working in underground electrical installations.
2. When accessing manholes and subsurface vaults:
 - a. Use ladders or other climbing devices to enter and exit manholes and subsurface vaults more than 4 feet deep.
 - b. Do not step on cables or hangers to climb into or out of manholes or vaults.
3. When lowering equipment into manholes:
 - a. Use equipment capable of supporting appropriate weight to lower materials and tools into manholes or vaults.
 - b. Check equipment used to lower materials for defects before use.
 - c. Clear the area directly under the opening before lowering hot solder or other hot compounds into the manhole or vault opening.
4. Ensure a worker trained in first aid/CPR is available on the surface to render any necessary emergency assistance while work is performed in a manhole containing energized electric equipment.
5. Allow the worker trained in first aid/CPR to briefly enter a manhole to assist if there are no atmospheric or traffic hazards.
6. If work can be performed safely in a manhole with energized cables or equipment, allow a worker working alone to enter a manhole briefly to inspect, housekeep, take readings, etc.
7. Maintain communications, through two-way radios or the equivalent, among all employees involved in the job.
8. Install duct rods in the least hazardous direction.
9. Ensure the required clearance distances are maintained by stationing a worker at the far end of the duct line being rodded.
10. Inspect energized cables for defects.

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11. When working on multiple cables:
 - a. Identify the cable to be worked on by electrical means, unless its identity is obvious by reasons of distinctive appearance or location, or by other readily apparent means of identification.
 - b. Protect cables other than the one being worked on from damage.
12. Do not work in a manhole where energized cables appear defective (e.g., oil or compound leaking from cable joint, broken cable sheaths or joint sleeves, hot localized surface temperatures of cables or joints, swollen joints where circumference exceeds 3 1/2 times the sleeve diameter).
13. Refer to the Work Methods Manual for precautions to be taken for work in a manhole or vault that could cause a fault in a cable.
14. Cover all energized splices in manholes with Kevlar blankets.
15. Maintain metallic sheath continuity when work is performed on buried cable and cable in manholes or treat the cable sheath as energized.

Electric Vault and Manhole Entry

1. Workers entering electric vaults and manholes shall complete Confined Space Training and shall be trained in rescue techniques.
2. Anytime work is performed in a manhole or vault, an attendant trained in first aid/CPR shall be present outside. For brief entries to perform inspections, housekeeping, or to take readings, an attendant is not required. The attendant can enter briefly to assist in the work if air monitoring indicates no atmospheric hazard, a work zone for road and street work has been set up and the traffic patterns do not present a hazard.
3. Conduct atmospheric testing prior to entry. Ventilate or monitor continuously during entry.
4. Rescue equipment shall be available at the job site anytime work is done in a manhole or vault. Rescue equipment is not required for brief entries for inspections, housekeeping or taking readings.
5. Workers may not enter a manhole or vault while it contains a hazardous atmosphere unless they comply with permit-required entry requirements of the Confined Space Entry program.

Ground Fault Protection for Personnel

1. Use ground fault circuit interrupter (GFCI) on all 120-volt, single-phase 15, 20 and 30 amp receptacles that are not part of the permanent wiring of a building or structure.

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Electrical Safety for Generating and Commercial Facilities

General

1. Only qualified persons shall be allowed to work near exposed energized electrical equipment.
2. De-energize equipment or circuits before working on or near them, unless:
 - a. De-energizing increases hazards.
 - b. De-energizing is infeasible.
 - c. Energized equipment/circuits operate at less than 50 volts-to-ground and exposure to electrical burns or explosion caused by electrical arcs is not increased.
3. Unqualified persons shall not open enclosures or panels that contain exposed energized electrical parts or equipment.
4. When doing electrical work, alert others of potential hazards.

Minimum Approach Distances

1. Qualified persons shall not approach or take any conductive object without an insulating handle closer to exposed energized parts than the minimum approach distances shown in the tables below unless the:
 - a. Worker is insulated from the energized part with rubber gloves or rubber gloves and sleeves and the worker has positive control of the energized part OR
 - b. Energized part is insulated from the worker with line hose/blanket/etc.
2. For voltages of 72.5 kV and less, utilize the minimum approach distances in Table 5 at elevations less than 3,000 feet. For voltages over 72.5 kV, utilize the minimum approach distances in Table 6 at elevations less than 3,000 feet.
3. Altitude correction is required over 3,000 feet.
4. All unqualified persons shall maintain these distances from overhead power lines:
 - a. For lines under 50 kV – 10 feet
 - b. For lines over 50 kV – 10 feet plus 4 inches for every 10 kV over 50 kV

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Table 5: Minimum Approach Distances for Voltages of 72.5 kV and Less

Nominal voltage phase-to-phase	Distance	
	Phase-to-ground exposure	Phase-to-phase exposure
50 to 300 volts	Avoid contact	Avoid contact
301 to 750 volts	1 ft. 1 in.	1 ft. 1 in.
751 volts to 5.0 kV	2 ft. 1 in.	2 ft. 1 in.
5.1 to 15.0 kV	2 ft. 2 in.	2 ft. 3 in.
15.1 to 36.0 kV	2 ft. 7 in.	2 ft. 11 in.
36.1 to 46.0 kV	2 ft. 10 in.	3 ft. 3 in.
46.1 to 72.5 kV	3 ft. 4 in.	4 ft.

Table 6: Minimum Approach Distances for Voltages of More than 72.5 kV

Voltage range phase-to-phase	Distance	
	Phase-to-ground exposure	Phase-to-phase exposure
★ 72.6 to 121.0 kV	3 ft. 9 in.	4 ft. 8 in.
121.1 to 145.0 kV	3 ft. 10 in.	4 ft. 10 in.
145.1 to 169.0 kV	4 ft. 4 in.	5 ft. 5 in.
169.1 to 242.0 kV	5 ft. 8 in.	8 ft. 5 in.
242.1 to 362.0 kV	9 ft. 2 in.	14 ft. 9 in.
362.1 to 420.0 kV	9 ft. 2 in.	14 ft. 9 in.
420.1 to 550.0 kV	11 ft. 11 in.	20 ft. 4 in.
550.1 to 800.0 kV	15 ft. 10 in.	27 ft. 10 in.

Notes:

1. Minimum Approach Distances based on worksites at elevations of 3,000 feet or less. Altitude correction is required over 3,000 feet.
2. Phase-to-ground distances assume using live-line tools in the air gap.
- ★ 3. Phase-to-phase distances assume no live-line tool spans the air gap and no large conductive object is in the air gap. If a live-line tool spans the air gap or a large conductive object is in the air gap between phases, the required phase-to-phase distance can be determined by increasing the applicable voltage range Phase-to-Phase Exposure Distance by 10 percent or by requesting an engineering evaluation.

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Personal Protective Equipment

Table 7: Personal Protective Equipment for Electrical Work

This table describes personal protective equipment for electrical work.

	Work on Exposed Energized Parts This includes but is not limited to: maintenance, repair, cleaning and installing/removing fuses	Voltage Testing
50 to 600 volts	<ul style="list-style-type: none"> • Hard hat and safety glasses • Rubber gloves w/leather protectors 	<ul style="list-style-type: none"> • Hard hat and safety glasses
Over 600 volts	PPE same as 50 to 600 volts. Additional requirement: Work in pairs (work alone is allowed for routine switching, work with live-line tools and emergency repairs necessary to safeguard the general public).	PPE same as 50 to 600 volts. Additional requirement: Work in pairs (work alone is allowed for routine switching, work with live-line tools and emergency repairs necessary to safeguard the general public).

Notes:

1. When performing voltage testing (less than 300 volts), workers shall assess the hazards and wear rubber gloves with leather protectors if there is a hazard of contact with other exposed energized parts. For voltage testing on parts greater than 300 volts, always wear rubber gloves.
2. See "Arc Flash Protection" section below for information on FR clothing and face shield requirements for electrical work.

Electrical Protective Equipment

1. The maximum-use voltage for electrical protective equipment (e.g., rubber gloves, rubber sleeves, rubber blankets, matting and line hose) is as follows:
 - a. Class 0 – 1,000 volts
 - b. Class 1 – 7,500 volts
 - c. Class 2 – 17,000 volts
 - d. Class 3 – 26,500 volts
 - e. Class 4 – 36,000 volts
- ★ 2. Electrical protective equipment shall be tested before first issue and retested as required by OSHA. Contractors follow OSHA testing frequency. Equipment tested will be tested on these frequencies. Business unit-specific exceptions may apply.

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Test Frequency:

Rubber gloves 4 months
Rubber sleeves 4 months
Blankets 12 months
Line hose..... 12 months

3. Visually inspect and air test rubber gloves before use.
4. Visually check rubber blankets and sleeves for flaws before use.
5. Always wear leather protectors over rubber gloves. Do not use protectors for any other purpose. Exception: Class 0 rubber gloves can be used without protectors under limited-use conditions where small equipment and parts manipulation necessitates unusually high finger dexterity. Take extra care in the visual examination of each glove and in avoiding handling sharp objects. Visually inspect and air test gloves before and after use.
6. When protective equipment selection depends on voltage levels, use the phase-to-phase voltage on multiphase circuits. Phase-to-ground voltage can be used if there is no multiphase exposure or if energized conductors have been covered with rubber protective equipment, eliminating any possible multiphase exposure.

Jewelry

1. Do not wear jewelry (such as rings, earrings, bracelets, necklaces or pendants) where contact with energized electric lines or equipment is possible.
2. Take extra caution if wearing keys, wire rim glasses, identification badges, metal belt buckles or metal buttons on garments.

Insulated Tools

1. If hand tools are used near exposed energized conductors or parts AND the hand tools could make contact with the conductors or parts, the hand tools shall be the insulated type.
2. Before using insulated tools, visually inspect them to ensure the insulating material is not damaged.
3. Use insulated tools only for their designated purposes. Do not use insulated hand tools on circuits over 1,000 volts.
4. Insulated tools shall be marked with double triangles by the manufacturer to indicate they were manufactured and tested in compliance with ASTM F1505, Standard Specification for Insulating and Insulated Hand Tools.

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5. Coverings on the handles of tools not marked with double triangles shall not be considered as insulation.
6. Wear rubber gloves with insulated hand tools if the work could cause the minimum approach distance to be violated.

Testing for Voltage

1. Consider lines and equipment as energized until they have been isolated, tested for voltage and grounded where applicable.
2. When work requires direct contact with electrical circuits, use voltage testing devices to verify that the equipment is de-energized.
3. Be aware that equipment can be fed by more than one source or can be actuated from more than one location.
4. If any unusual condition is encountered (e.g., voltage present when it should not be), immediately stop work, place the equipment in a safe condition and contact your supervisor.
5. Test for voltage initially, at shift change and after other work stoppage.
6. If the circuit to be tested is over 600 volts, check the test equipment for proper operation immediately before use. Follow the manufacturer's instructions for the device.
7. If there is a possibility of the re-accumulation of stored energy to a hazardous level, verify safe work conditions periodically throughout the shift until work is completed or until the possibility of such accumulation no longer exists.
8. Before use, visually inspect test instruments, leads, cables, power cords, probes and connectors for external damage. If there is any doubt as to the equipment's integrity, do not use it.
9. Verify that voltage testing devices are operating properly and that appropriate settings are used for the parameter and type of voltage to be checked.
10. Verify that the testing device is being used for the correct application and in the proper configuration. Follow the instructions in the operator's manual for the specific make and model being used.
11. Do not exceed the maximum safe voltage for the test equipment. Follow manufacturer's guidelines and/or group procedures for specific limitations of equipment used.

Working Position

1. Workers shall work in a position from which a slip or shock will not bring the worker's body into contact with exposed energized parts.
2. For exposed energized parts over 600 volts, work from a position where you cannot reach into the minimum approach distance unless wearing rubber gloves or using live-line tools.

Arc Flash Protection

1. The following items apply to workers who are exposed to arc flash hazards.
2. Refer to detailed arc flash protection requirements in business unit-specific procedures.
3. Do not wear clothing that could melt onto the skin or that could ignite and continue to burn when exposed to heat energy from electric arcs. This includes acetate, nylon, polyester, rayon and polypropylene. These fibers are allowed when blended with FR fabrics (such as Nomex/rayon blends).
4. Outer layers of clothing shall be arc-rated flame-resistant under any of these conditions:
 - a. Worker is exposed to contact with circuits energized at more than 600 volts.
 - b. Electric arc could ignite flammable materials in the work area that could ignite the worker's clothes.
 - c. Molten metal or electric arcs from faulted conductors could ignite the employee's clothing.
 - d. Estimated incident energy exceeds 2.0 cal/cm² as determined by business unit arc flash analysis. FR clothing shall have an arc rating greater than the heat energy estimated as determined by business unit arc flash analysis.
5. Hand protection shall consist of rubber gloves with leather protectors where there is hazard of electrical contact. Where there is flash hazard but not contact hazard, workers shall wear heavy-duty leather work gloves. The work gloves must be arc-rated for exposures over 14 cal/cm².
6. Wear heavy-duty work shoes or boots. Footwear does not have to be arc-rated.
7. In addition to hard hat and safety glasses, arc-rated face and head protection is required for these exposures:

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Table 8: Exposures Requiring Arc-Rated Face and Head Protection

	No head or face protection required	Arc-rated face shield with minimum rating of 8 cal/cm ²	Arc-rated hood or face shield with balaclava
Single-phase exposure in air*	< 8 cal/cm ²	9 to 12 cal/cm ²	13 cal/cm ² or higher
Three-phase exposure	< 4 cal/cm ²	5 to 8 cal/cm ²	9 cal/cm ² or higher

* Single-phase and three-phase refer to the exposure – not the system voltage. Business units will define the tasks with these exposures.

8. Where flame-retardant clothing is worn for exposures exceeding 2 cal/cm², long sleeves are required.
9. When operating circuit breakers, switches or disconnect devices locally (open or closed) on an energized bus that has an arc flash hazard, when practical perform the following to minimize potential exposure to electrical fault blast energy:
 - a. Stand clear to one side, hinge side preferred
 - b. Stand with your side to the potential blast area (less surface area subject to the blast)
 - c. Stand outside an imaginary line set to 45 degrees from opening (outside probable blast area)
 - d. Increase working distance from the opening (decrease potential blast force)
 - e. Wear ear plugs or ear muffs

Grounding

1. When grounding lines and equipment for the protection of workers, ensure safety ground leads are not less than No. 2 AWG flexible stranded copper rubber-covered cable or its equivalent and capable of conducting the maximum fault current potential and duration necessary to clear the fault. Where generation equipment has been de-energized according to lockout/tagout procedures, grounds do not have to be sized for maximum fault current.
2. When installing and removing grounds, wear rubber gloves with leather protectors, safety glasses, hard hats and flame-resistant clothing.

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3. Inspect grounding cables and connecting clamps before installation to ensure that all connections are solid and wires or connectors are not frayed or corroded.
4. Before any ground is installed, lines and equipment shall be tested and found absent of nominal voltage, unless a previously installed ground is present.
5. When a ground is to be attached to a line or to equipment, the ground-end connection shall be attached first, and then the other end shall be attached.
6. When a ground is to be removed, the grounding device shall be removed from the line or equipment before the ground-end connection is removed.
7. In switchyards and on T&D installations, grounds shall be attached to and removed from the line or equipment with a live-line tool.

Tools, Equipment and Fixtures

1. When working near energized circuits, use only flashlights with exposed parts made of nonconductive material.
2. When working on or near electrical equipment, use ladders with nonconductive (fiberglass) side rails.
3. Do not use portable space heaters without prior approval from your supervisor and site/facilities management. If portable electric space heaters are used, they must be attended while in use, turned off after normal working hours and kept at least 3 feet away from combustible materials.
4. Before replacing fuses, verify that ratings and types are correct.
5. Appropriate tools shall be used for installing and removing fuses.
6. Before working on energized equipment, try to dry wet floors. If floors cannot be dried, use rubber gloves, insulating blankets and a wooden foundation to elevate the blanket above the moisture.
7. Secure or remove doors, hinged panels, etc. to prevent them from swinging into a worker and causing contact with exposed energized parts.
8. Do not obstruct access to electrical equipment.

Extension Cords

1. Before using extension cords, inspect them for loose parts, damaged pins and defective insulation. Replace damaged cords.
2. Only use extension cords with grounding conductors.
3. Do not raise and lower equipment with extension cords connected to the equipment.
4. Do not fasten extension cords with staples, nails, etc. or hang them in a fashion that could damage the outer jacket, insulation or conductors.

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5. Elevate extension cords passing through work areas to protect them from damage and to eliminate tripping hazards.
6. Be sure your hands are dry when plugging or unplugging extension cords.
7. Properly secure locking connectors after connection, if applicable.
8. If an extension cord is wet from immersion, wear rubber gloves if it is still energized.
9. Protect extension cords from vehicular traffic (e.g., forklifts, manlifts, tractors).

Electrical Equipment in Conductive Work Locations

1. Portable electric equipment used in highly conductive work locations (such as those inundated with water or other conductive liquids) or in job locations where workers are likely to contact water or conductive liquids shall be approved for those locations.
2. In job locations where workers are likely to contact or be drenched with water or conductive liquids, ground fault circuit interrupter protection for personnel shall also be used.

Batteries

1. Do not smoke or create sparks, arcs or flames in battery areas. Post signs accordingly.
2. Take extreme caution when carrying or using conductive materials around batteries. To prevent shocks, avoid physical contact with exposed conductors on batteries.
3. Do not remove vent plugs from cells, unless specific maintenance work is being performed. Immediately reinstall vent plugs after work is completed.
4. Before performing battery-related tasks, check the location of the nearest eyewash or eyewash/shower. If the plumbed eyewash/shower has not been tested within the last week, test it before working on the batteries.
5. Battery-related tasks may be performed by persons working alone. Ask for assistance if necessary.
6. Provide adequate ventilation in battery rooms.
7. When charging, repairing or servicing batteries, follow manufacturer's recommendations.

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8. Wear appropriate personal protective equipment for work on batteries.
 - a. Eye protection, full-face shield, chemical resistant gloves, full-body apron and protective footwear to:
 - i. Add/remove electrolytes (acid)
 - ii. Move lead acid cells
 - iii. Check specific gravity
 - iv. Wash/clean battery cells
 - b. Eye protection to:
 - i. Read cell battery voltage
 - ii. Adjust intercell connecting hardware

Switchyards at Generating Plants

1. Consider all conductors and equipment as energized until tested for voltage and grounded.
2. Report any unusual conditions observed on substation structures, equipment, ground wires, busses or wiring to supervision or the system coordinator.
3. When entering an occupied substation, report your presence to the employee in charge.
4. Lock substation entrances that are not observed by an attendant.
5. Post DANGER KEEP OUT signs (or the equivalent) to warn unauthorized persons.
6. Provide guarding around live parts over 150 volts-to-ground that do not have an insulating cover unless they are located to prevent inadvertent contact.
7. Ensure switching operations are performed only by qualified persons.
8. For all live-line tools:
 - a. Wipe clean and inspect daily before use. Properly wax as needed.
 - b. Every two years, dielectrically test at 75,000 volts per foot for one minute. Use appropriate tester.
 - c. Do not place on the ground.
 - d. When refinished, repaired or failing a visual inspection, dielectrically test before returning to service.
9. Carry or place conductive material so as to prevent contact with energized lines, equipment or busses.
10. Do not use metallic cloth tapes, metal tapes, metal rules or other conductive material near energized conductors or equipment.
11. Before applying grounds, de-energize static capacitors for five minutes.

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12. Attach fall protection only to designated substantial anchorage points; do not attach to conductors or cables.
13. Do not use portable metal or other conductive ladders in substations.
14. Ensure transformer cooling fans that are less than 7 feet above the ground are provided with guards that have openings less than ½ inch.

Ground Fault Protection for Personnel in Construction

1. Persons must be protected from ground fault hazards as described below during activities involving construction, remodeling, maintenance, repair or demolition of buildings, structures, equipment or similar activities.
2. Temporary wiring: Use ground fault circuit interrupter (GFCI) on all 120-volt, single-phase 15, 20 and 30 amp receptacles that are not part of the permanent wiring of a building or structure.
3. Portable generators: Follow National Electric Code requirements. GFCI is not required on receptacles on two-wire, single-phase portable or vehicle-mounted generators rated not more than 5 kW where the circuit conductors of the generators are insulated from the generator frame and all other grounded surfaces. For all other conditions, GFCI is required.
4. For cord sets, extension cords, and cord- and plug-connected tools, comply with one of the following options:
 - a. Option 1: Use GFCI on all cord sets, extension cords, and cord- and plug-connected tools. When using portable GFCIs, install the GFCI between the receptacle and the cord set, not between the tool and the cord set.
 - b. Option 2: Implement an assured equipment grounding program.
 - i. Visually inspect cord sets, extension cords and tools before each day's use for external defects.
 - ii. Test extension cords and grounded tools for continuity before first use, quarterly and following repairs. Testing is not required for double-insulated tools or for cords with illuminated ground continuity monitors.

Electromagnetic Fields (EMF) and Medical Devices

1. High electromagnetic fields (EMF) may interfere with the operation of medical devices. High EMF levels may be present in electrical equipment located in generating station switchyards, station main bus lines, magnetic separators, generator brush rooms and other locations such as substations. Office areas do not present a risk.

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2. Workers who have medical devices such as internal pacemakers, defibrillators, insulin pumps and pain modification devices are encouraged to consider voluntarily reporting such devices to supervision and H&S/EHS professionals.
 - a. Management cannot require workers to report medical devices, but they should consider doing so.
 - b. While cochlear implants and hearing aids may be affected, they should not present a life-threatening risk.
3. Personnel with medical devices should not enter generating plant switchyards due to potential for EMF.
4. If there appears to be an immediate hazard related to medical device operation and high levels of EMF:
 - a. Stop work.
 - b. Move away from the high EMF source.
 - c. Contact your supervisor.
5. Additional guidance for supervisors is available through the H&S Portal and from H&S/EHS professionals.

Elevating Mobile Work Platforms

General

1. This section outlines requirements for the operation of boom-supported elevating work platforms, self-propelled elevating work platforms and manually propelled elevating work platforms (JLGs, Genies and scissor lifts).
2. The operator shall ensure the operating and maintenance manuals are available.
3. The operator shall comply with manufacturer's warnings and instructions.
4. Personal fall arrest equipment is required for workers working from boom-supported elevating work platforms.
5. Workers working in scissor lifts shall be protected by guardrails or personal fall arrest if guardrails are not installed.
6. Workers shall be trained and qualified prior to operating or riding in elevating work platforms.

Pre-start Inspection

1. Before use each day, pre-start inspection shall be conducted in accordance with operator's manual.
2. Any problems or malfunctions shall be repaired prior to use of the platform.

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Workplace Inspection

1. Before the elevating work platform is used and during use, the operator shall check the area for possible hazards including:
 - a. Drop-offs, holes and slopes
 - b. Bumps and floor obstructions
 - c. Debris
 - d. Overhead obstructions and electrical conductors
 - e. Hazardous atmospheres
 - f. Inadequate surface and support to withstand load forces imposed by the aerial platform
 - g. Wind and weather conditions
 - h. Presence of unauthorized persons
 - i. Other possible unsafe conditions
2. Prior to each operation, the operator shall ensure:
 - a. Outriggers are used as required
 - b. Guardrails are installed and access gates closed
 - c. Load and its distribution on the platform are in accordance with manufacturer's rated capacity
 - d. All personnel on the platform have PPE for the work and environment envisioned

Driving Requirements

1. Before and during driving while the platform is elevated, the operator shall:
 - a. Maintain a clear view of the support surface and route of travel.
 - b. Ensure personnel in the worksite area that may be affected are aware of the movement, communicating and maneuvering the platform as required to protect against personal injury.
 - c. Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps and other hazards to ensure safe travel.
 - d. Maintain a safe distance from overhead obstacles.
 - e. Maintain the minimum approach distance from energized power lines. For operators who are not qualified T&D line technicians, the distances are:
 - i. For lines under 50 kV – 10 feet
 - ii. For lines over 50 kV – 10 feet plus 4 inches for every 10 kV over 50 kV

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- f. Cease operation of the elevating platform should the operator encounter any suspected malfunction of the elevating platform or any hazard or potentially unsafe condition.
 - g. The elevating platform shall not be positioned against another object to steady the platform or improve stability.
 - h. If the elevating platform becomes caught, snagged or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform using lower controls.
2. Operation from ground with a remote controller includes driving requirements above and:
 - a. Maintain safe distances between the operator, machine and fixed objects.
 - b. Be aware of the direction the machine will travel when using the controller and do not place yourself in the machine's path.

Eyewash and Emergency Showers

1. Personnel shall ensure that emergency showers and eyewash basins in the immediate work area are operable before starting work.
2. Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be easily accessible, unobstructed and able to be located within 10 seconds. For a strong acid or caustic, the eyewash should be immediately adjacent to the hazard.
3. Know the effects of chemicals with which you are working. Read, ask questions about and understand SDS for each chemical with which you work.
4. Always wear personal protective equipment suitable for the material.
5. Prior to starting work, flush plumbed eyewash/showers if they have not been flushed in the last week.
6. Immediately wash off even small amounts of chemicals.
7. In case of chemical exposure, flush skin and eyes with cool water for at least 15 minutes. Do not rub.
8. Hold your eyes open with your hands while using an eyewash to be sure water reaches the eyes.
9. Remove contaminated clothing after the shower has been activated.
10. Get medical assistance immediately following flushing.

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11. If possible, continue flushing while on the way to medical help.
12. Keep covers on nozzles to prevent contamination.

Ergonomics

Work Practices to Avoid Musculoskeletal Disorders

1. Workers should be cognizant of the primary risk factors that can lead to the development of musculoskeletal disorders (MSD):
 - a. Awkward postures
 - b. Excessive force
 - c. Excessive repetition
 - d. Contact stress (hard edge/pressure)
 - e. Heavy vibration (increased risk at cold temperatures)
2. Workers should recognize the signs of musculoskeletal disorders:
 - a. Decreased range of motion
 - b. Deformity or swelling
 - c. Decreased grip strength
 - d. Loss of function (e.g., cannot close hand)
3. Workers should recognize the symptoms of musculoskeletal disorders:
 - a. Persistent numbness
 - b. Burning sensation
 - c. Pain
 - d. Tingling
 - e. Cramping
 - f. Stiffness
4. Suggestions for avoiding ergonomic injuries include:
 - a. Alternate work patterns and tasks as much as possible throughout the day to allow rest for different muscle groups.
 - b. Perform stretching exercises periodically throughout the workday to relieve stressed muscles.
 - c. Keep your body in "neutral" positions as much as possible.
 - d. Always use good posture.
 - e. Begin or continue a physical fitness program after consulting your health care provider.
5. Report MSD signs and symptoms through normal incident reporting process.

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Workstations

1. When working at a computer workstation, workers should consider the following:
 - a. Adjust working height of chair, desk and keyboard.
 - b. Sit in an upright position using good posture.
 - c. Adjust monitor and copy stand side by side and at a comfortable viewing angle.
 - d. Set angle of monitor and copy to reduce glare.
 - e. Keep wrists and hands in line while using keyboard and mouse. Avoid bending wrists forward or backward.
 - f. When using a video display terminal, blink frequently to maintain eye surface moisture.
 - g. To prevent eye fatigue, momentarily focus eyes on a distant object.
 - h. When using a video display terminal for prolonged periods, frequently stretch and move head, neck, shoulders and arms to prevent buildup of muscle tension.
 - i. Ensure chairs are easily and fully adjusted, and allow the body to shift position to the greatest extent possible. Use footrests when adjustments to the chair height do not relieve pressure under the thigh.
 - j. When continuously and simultaneously using the telephone and computer, use telephone headrest, headset or speakerphone to prevent injury.
 - k. Organize work areas to avoid stretching/twisting to reach items.

Manual Transport of Objects and Materials

1. When performing manual transport or storage operations, employees should consider:
 - a. When lifting, holding or pushing, workers should avoid strains and sprains caused by incorrect posture, lack of proper assistance and/or lifting aids.
 - b. When handling materials, workers should use the following techniques if mechanical equipment is not available:
 - i. Lifting
 1. Keep the load close to your body.
 2. Bend your knees and hips.
 3. Lift with your legs.

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4. Avoid twisting as you lift.
5. Get help when needed.
- ii. Bending
 1. Kneel on one knee.
 2. Bend knees and hips, not your back.
 3. When leaning forward, move your whole body, not just your arms.
- iii. Repetitive motions
 1. Keep the load small.
 2. Turn your whole body instead of twisting.
 3. Get close to the load; do not reach and lift.
 4. Lift with your arms and legs, not your back.
 5. Change positions frequently.
- iv. Reaching
 1. Reach only as high as is comfortable; do not stretch.
 2. If you need to reach beyond your comfort level, use a ladder.
 3. Test the weight of the load before lifting. Let your arms and legs do the work, not your back.
- v. Pushing and pulling
 1. Stay close to the load; do not lean forward.
 2. Push the load rather than pulling.
 3. Use both arms.
 4. Get help when needed.

Fall Protection and Walking/Working Surfaces

General Fall Protection Requirements

1. Prior to beginning each job, an assessment must be performed to determine if fall hazards are present and if protective measures are needed. Fall hazards and protective measures shall be included in job planning as appropriate.
2. Locations will have plans in place to rescue workers promptly if they fall while wearing fall arrest equipment. Rescue planning should minimize the amount of time a person is suspended in a fall arrest harness and may include provisions for self-rescue, calling local emergency services, or use of plant emergency responders.

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3. When personal fall arrest equipment is required, it shall include a full-body harness with a shock-absorbing lanyard, retracting lanyard or fall arrestor such as a rope grab. It may include other equipment for anchorage or attachment.
4. For maintenance activities, in elevated areas 4 feet or more above a lower level and where guardrails or safety nets are not practical, workers shall use personal fall arrest equipment to prevent injury due to a fall.
5. For construction activities, see Table 10: Fall Protection Requirements for Specific Construction Activities.
6. Fall protection for wood poles, towers and other transmission and distribution structures is described in the Work Methods Manual.
7. Workers must rig fall protection equipment so that free fall is minimized (6 feet or less) and hitting obstructions or a lower level is avoided.
8. Anchorage points must be capable of withstanding 5,000 pounds of force per worker attached or shall be selected by an engineer as part of a fall protection system with a safety factor of two.
9. On vertical lifelines, each worker must have a separate lifeline with a breaking strength of at least 5,000 pounds.
10. Snaphooks, when used, shall be the locking type.
11. All fall protection equipment must be inspected before each use. Any defective pieces must be removed from service. Inspect for these defects:

Table 9: Fall Protection Equipment Inspection Guidelines

Inspect	For evidence of defect or damage including:
Hardware, D-rings, Buckles, Connectors, etc.	Cracks, sharp edges, deformation, corrosion, chemical attack, excessive wear, alterations excessive heating
Ropes, Straps, Lines, Cables	Fraying, unsplicing, unlaying, kinking, knotting, broken or pulled stitches, excessive elongation, chemical attack, abrasion, excessive wear, excessive lubrication
Mechanical devices, Rope grabs, Connectors	Improper functioning, absence of parts

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12. Body belts may be used for work positioning and travel restraint. Body belts may also be used with ladder safety devices where the point of attachment to the harness is 9 inches or less. Do not use body belts for fall arrest.
13. Horizontal lifelines with a safety factor of two shall be designed, installed and used under the supervision of a qualified person.
14. Workers who are on surfaces at any height above dangerous equipment shall be protected by guardrails or fall arrest equipment.
15. Skylights shall be guarded by standard skylight screens or guardrails or personnel shall wear personal fall arrest equipment.
16. For personnel platforms secured to the forks of forklift trucks, ensure:
 - a. Workers are protected from moving parts of the truck and falling objects overhead.
 - b. Platforms are at least 18 inches wide.
 - c. The platform has guardrails or the worker wears fall arrest equipment.
 - d. Platforms are secured to the forklift according to manufacturer's recommendations.
17. For the nonworking side of loading docks with a fall hazard of 4 feet or greater, install guardrails or ensure that workers wear fall arrest equipment. The working side of loading docks does not require a guardrail if it prevents work from being performed.
18. Workers working in the bucket of a bucket truck shall wear personal fall arrest equipment.
19. Workers working on top of tanker trucks and rail cars shall use personal fall arrest equipment.
20. Personal fall arrest equipment is required for workers working from boom-supported elevating work platforms.
21. Workers working in scissor lifts shall be protected by guardrails or personal fall arrest equipment if guardrails are not installed.
22. Protect lifelines against damage.
23. Do not use lanyards or lifelines that have knots.
24. Immediately remove from service personal fall arrest systems and components subjected to impact loading. Do not reuse until a competent person inspects them and determines them undamaged and suitable for reuse. Work with your H&S/EHS professional for evaluation.
25. Do not attach personal fall arrest systems to guardrail systems or to hoists unless approved by a qualified person.

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26. When a personal fall arrest system is used at hoist areas, rig it to allow the movement of the worker only as far as the edge of the walking/working surface.
27. When wearing a fall arrest harness, take precautions to ensure that the lanyard does not create a tripping hazard or get caught in rotating or moving equipment.

Walking and Working Surfaces

1. Before allowing workers to work on walking/working surfaces, ensure that such surfaces have the strength and structural integrity to support workers safely.
2. All floor surfaces must be kept clean, dry and free of protruding nails, splinters, loose boards or grating, holes or any other projections.
3. Drainage must be provided in areas of wet processes and mats should be provided where practical.
4. Every open-sided floor platform or runway 4 feet or more above an adjacent floor or ground level must be protected by a standard railing consisting of a guardrail, midrail and toe board.
5. Every stairway with four or more risers must have stair railings.
6. Floor holes, hatchways, pits, chutes or other floor openings must be covered or guarded by guardrails and toe boards.
7. A floor hole that is less than 1 foot in the least dimension and that provides for the passage of machinery, piping or other equipment that may expand, contract, vibrate and/or move shall be at least guarded by a toe board to prevent a worker's feet from entering the hole and tools or debris from falling on workers below.
8. Ensure floor hole guards are in place at all times unless it is necessary to remove the guards temporarily. If the floor hole guards are removed, use guardrails or personal fall arrest equipment to protect workers from falling through holes that are more than 6 feet above lower levels.
9. Do not exceed the weight capacity of a floor hole cover.
10. On stairs, hold handrails where available.

Ladders

1. Use ladders only for the purpose for which they were designed.
2. When ascending or descending, workers shall face the ladder, use at least one hand to grasp the ladder and not carry anything that could cause loss of balance or a fall. Use three points of contact.

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3. Before each use, ladders must be inspected for defects or damage. Defective ladders must not be used, and they must be immediately removed and tagged out of service.
4. Ladders used to gain access to roofs, floors, platforms, landings, scaffolds, etc. must extend at least 3 feet above the access point or be secured at the top and provided with a grasping device to assist workers in mounting and dismounting the ladder.
5. Portable metal ladders must not be used in areas containing exposed energized electrical lines or equipment.
6. Ladders must not be placed against movable objects, and they must not be placed in doorways opening toward the ladder unless the door is open, locked or guarded.
7. Ladders must be securely placed, held or tied to prevent slipping and falling.
8. The area around the top and base of ladders must be kept free of tripping hazards, such as loose materials, trash, cords, hoses, loads, etc.
9. If ladders have to be set up in aisles or other passageways, they must be protected from fork trucks, material-handling equipment and other traffic.
10. Working load on ladder must not exceed load limits of the ladder. Labels on portable ladders must be legible.
11. Portable ladders must be equipped with non-skid feet and, where appropriate, self-leveling feet. Ladders must not be placed on unstable bases such as boards, bricks, boxes, barrels, etc.
12. Portable ladders must be placed so that the distance between the bottom legs of the ladder and the supporting points is one-fourth of the ladder length between supports.
13. Two-section extension ladders must not exceed 48 feet in total length, and ladders with more than two sections must not exceed 60 feet in total length.
14. Portable ladders must not be used horizontally as scaffolds, runways, platforms or as guys, braces or skids, or for anything other than their designed uses.
15. When using a portable single or extension ladder, the ladder shall be secured at the top, if possible. If the work requires both hands while working on a secured ladder, use personal fall arrest equipment or work positioning equipment (body belt).
16. Stepladders are to be used only with the legs fully extended and the spreader bar locked in place. Stepladders must not be used as straight ladders.
17. The top or top step of stepladders must not be used, except for platform ladders that are specifically designed for that purpose.

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18. Cages, wells, ladder safety devices or personal fall arrest equipment is required for fixed ladders more than 24 feet in height.
19. Fall protection shall be provided at fixed ladder access openings.
20. Do not overload ladders. Pay attention to the duty rating of portable ladders:
 - a. **Type III:** Light duty, household use, capable of supporting 200 pounds
 - b. **Type II:** Medium duty, commercial use, capable of supporting 225 pounds
 - c. **Type 1:** Heavy duty, industrial use, capable of supporting 250 pounds
 - d. **Type 1A:** Extra heavy duty, industrial use, capable of supporting 300 pounds
 - e. **Type 1AA:** Extra heavy duty, industrial use, capable of supporting 375 pounds

Vehicle repair pits

1. Vehicle repair pits and assembly pits over 4 feet but less than 10 feet deep do not need to be protected by a fall protection system, provided that the following requirements are met:
 - a. Access within 6 feet of the edge of the pit is limited to authorized workers.
 - b. Authorized workers are trained to recognize and avoid the hazards involved with work around the pit area.
 - c. Floor marking in colors contrasting to that of the surrounding area are applied, or rope, wire or chain with support stanchions are placed at a distance of at least 6 feet from the edges of the pits.
 - d. Caution signs stating "Restricted Area," "Authorized Personnel Only" or a similar legend are used to limit entry into the area to authorized workers.

Mobile ladder stands

1. Do not move occupied units. Do not overload. Do not store materials or equipment on the step or platform.
2. Do not attempt to gain additional height by adding any type of extension or object on the unit.
3. Use handrails while ascending and descending.
4. Face the ladder when ascending or descending when the slope of the ladder is greater than 50 degrees above the horizontal.
5. Do not place occupied units in front of a door unless the door is secured.
6. Do not overreach. Keep the unit in close proximity to the work.

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7. Use only on a level surface.
8. Access to or egress from any step or platform from any other elevated surface is prohibited unless the unit has been positively secured against movement.

Specific requirements for construction activities

Table 10: Fall Protection Requirements for Specific Construction Activities

For construction work on this surface:	The fall protection system required is:	Additional information
Surfaces with unprotected sides and edges 6 feet or more above lower levels. These are surfaces that are not listed below.	Guardrail system, safety net system or personal fall arrest system.	
<p>Leading edges 6 feet or more above lower levels for workers engaged in the leading edge work.</p> <p>Erecting precast concrete members (including erection of wall panels, columns, beams, and floor and roof "tees") and when performing related operations 6 feet or more above lower levels.</p> <p>Fall protection plan is allowed ONLY for leading edge work, precast concrete work and residential construction.</p> <p>Residential construction activities 6 feet or more above lower levels.</p>	Guardrail system, safety net system or personal fall arrest system.	Exception: If these are infeasible or create a greater hazard, develop and implement a fall protection plan.
Workers who are working on a walking/working surface 6 feet or more above a lower level where leading edges are under construction, but who are not engaged in the leading-edge work.	Guardrail system, safety net system or personal fall arrest system.	Note: When a guardrail system is chosen and when a controlled access zone has already been established for leading-edge work, use, if desired, the control line instead of a guardrail along the edge that parallels the leading edge.

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For construction work on this surface:	The fall protection system required is:	Additional information
Hoisting areas more than 6 feet above lower levels.	Guardrail system or a personal fall arrest system.	Note: If guardrail systems are removed during hoisting operations, ensure workers leaning through the access opening or over the edge use personal fall arrest systems.
When working around holes (including skylights) more than 6 feet above lower levels. This includes holes created by temporarily removing grating.	Personal fall arrest system, cover or guardrail system erected around the holes.	Cover holes (including skylights) to protect workers from tripping in or stepping into or through holes and objects falling through holes.
Formwork and reinforcing steel 6 feet or more above lower levels.	Personal fall arrest systems, safety net systems or positioning device systems.	
Ramps, walkways and runways 6 feet or more above lower levels.	Guardrail systems.	
Edges of excavations 6 feet or more in depth and when the excavations are not readily seen because of plant growth or other visual barrier.	Guardrail systems, fences or barricades.	
Edges of wells, pits, shafts and similar excavations 6 feet or more in depth.	Guardrail systems, fences, barricades or covers.	
When working less than 6 feet above dangerous equipment.	Guardrail systems or equipment guards.	

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For construction work on this surface:	The fall protection system required is:	Additional information
<p>When engaged in overhand bricklaying and related work 6 feet or more above lower levels.</p>	<p>Use guardrail systems, safety net systems, personal fall arrest systems or controlled access zones. When reaching more than 10 inches below the level of the surface being worked on, use a guardrail system, safety net system or personal fall arrest system.</p>	<p>Note: This does not apply to bricklaying done from scaffolds. (See OSHA, 1926, Subpart L.)</p>
<p>When doing roofing work on low-slope roofs with unprotected sides and edges 6 feet or more above lower levels.</p>	<p>Guardrail systems, safety net systems, personal fall arrest systems or a combination of:</p> <ul style="list-style-type: none"> • Warning line system and guardrail system when workers are outside the warning line • Warning line system and safety net system when workers are outside the warning line • Warning line system and personal fall arrest system when workers are outside the warning line • Warning line system and safety monitoring system when workers are outside the warning line 	<p>Note: On roofs 50 feet or less in width, using a safety monitoring system alone (without the warning line system) is permitted only with H&S Manager approval.</p>

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For construction work on this surface:	The fall protection system required is:	Additional information
All work activities on low-slope roofs that are not related to roofing work.	Use fall arrest equipment if you are close enough to the edge to fall unless the perimeter is enclosed with guardrails or parapets at least 39 inches high.	
Inspections prior to the actual start of construction work or after construction work has been completed.	Fall protection is not required for inspection, investigation or assessment of workplace conditions prior to the actual start of construction work or after all construction work has been completed. Fall protection is required for inspections that take place while construction work is underway.	
Steep roofs with unprotected sides and edges 6 feet or more above lower levels.	Guardrail systems with toe boards, safety net systems or personal fall arrest systems.	
When working on, at, above or near wall openings (including those with chutes attached) when the outside bottom edge of the wall opening is 6 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface.	Guardrail system, safety net system or personal fall arrest system.	

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For construction work on this surface:	The fall protection system required is:	Additional information
Where the potential for falling objects exists, use hard hats and do one of the following:	<ol style="list-style-type: none"> 1. Erect toe boards, screens or guardrail systems to prevent objects from falling from higher levels. 2. Erect a canopy structure, and keep objects far enough from the edge of the higher level to prevent their falling over the edge if they are accidentally displaced. 3. Barricade the area to which objects could fall, prohibit workers from entering the barricaded area and keep objects far enough from the edge to prevent their falling over the edge if they are accidentally displaced. 	
Scaffold erection and use.	See the H&S Manual Scaffold Program.	

Fire Prevention and Protection/Means of Egress

Means of Egress

1. Keep exits and exit routes unobstructed.
2. Do not lock exit doors closed.
3. Do not store any flammable or combustible material in an exit route or stairwell.
4. Fire doors and dampers must never be tied or blocked in the open position or otherwise made inoperative.
5. Do not block emergency alarm pull stations.

Fire Prevention

1. Be familiar with site procedure for reporting and/or responding to a fire.
2. Know how to recognize and report hazardous conditions and fire hazards associated with the materials and processes to which workers are exposed.
3. Practice good housekeeping in all buildings and vehicles to prevent the accumulation of flammable and/or combustible material.
4. Keep flammable liquids in approved containers that are properly labeled, and store them in designated cabinets or storage areas away from ignition sources.
5. Do not store combustible materials in a flammable liquids storage area.
6. Return flammable liquids and aerosols to designated storage areas when not in use.
7. Keep flammable liquids storage cabinets and rooms closed.
8. Smoke only in designated areas.
9. Know and follow the site's requirements for the handling of oily rags.
10. Do not transfer flammable liquids into containers unless the nozzle and container are electrically interconnected (bonded).
11. Do not dispense flammable liquids by gravity from tanks, drums, barrels or similar containers except through a listed self-closing valve or self-closing faucet. Listed means tested and listed by a recognized testing laboratory (e.g., UL).
12. Do not use flammable or combustible liquids for general cleaning purposes.
13. Wash parts with flammable or combustible liquids in equipment UL/FM listed/approved for that purpose.
14. Locate and use parts-washing equipment in areas adequately ventilated to prevent accumulation of vapors.

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15. Keep parts-washing equipment closed when not in use and ensure that the fusible-link closure is intact and operational.
16. Do not store compressed gas cylinders with flammable or combustible liquids.
17. Do not place objects or materials in front of electrical panels or disconnects that restrict clear access to the equipment.
18. Keep electric control panel covers in place and/or doors closed.
19. Do not store supplies or other materials inside electrical rooms or cabinets or on electrical cabinets, panels or fixtures.
20. Do not use portable space heaters without prior approval from your supervisor and site/facilities management. If portable electric space heaters are used, they must be attended while in use, turned off after normal working hours and kept at least 3 feet away from combustible materials.
21. Conduct spray finishing operations only in approved designated areas.

Fire Protection

1. Report any damaged or spent portable fire extinguishers to appropriate personnel.
2. Do not block or restrict access to fire extinguishers or other fire protection equipment.
3. Fire extinguishers and other fire protection equipment should not be used unless you are trained and designated to do so.
4. Fire or smoke detection devices may contain radioactive parts. Before disposing of any used or damaged fire or smoke detection device, contact the local H&S/EHS professional.

Hazard Awareness

1. Identify potential pinch points prior to each task so these hazards can be eliminated or avoided.
2. When working overhead, keep tools and small materials not in use in belts or in an appropriate container.
3. Do not throw, toss or drop tools, material or trash unless the action has been discussed and determined to be the safest method. Tools or material shall not be tossed from one individual to another at any time.
4. Workers should not position themselves where they could be struck by falling, flying and moving objects. Protection against these hazards shall be discussed and mitigated prior to starting work. Three-way communication must be maintained when entering and exiting work areas.

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5. Prior to entering or exiting areas such as parking lots, offices, hallways, elevators, restrooms and break rooms, workers should be aware of the movement of others or equipment and take action to avoid injury.
6. Inspect work locations prior to beginning work to identify potential hazards from animal and insect bites and stings. Animal and insect repellents, devices and protective apparel shall be used as necessary.
7. Access job sites safely. Do not jump over fences, hedges, bushes, excavations or other obstacles. If required to climb a fence, maintain a controlled ascent and descent.
8. Horseplay is prohibited.

Hearing Conservation

1. Hearing protection shall be worn while working in all areas where the noise level is equal to or greater than 85 dB and in areas where workers cannot carry on a conversation in normal tones within 2 to 3 feet of each other.
2. Hearing protection shall be worn according to the instructions on signs and labels identifying potential high-noise exposure.
3. Contact an H&S/EHS professional for the appropriate type of hearing protection required.

Heat and Cold Exposure

General

1. Dress appropriately for the environmental conditions.
2. Effectively plan, engineer and schedule work/projects to eliminate, control or minimize exposure to temperature extremes.
3. Take adequate breaks and replace fluids frequently.
4. Maintain good physical condition to minimize and/or eliminate injuries/illnesses from exposure to heat or cold.
5. When working in adverse weather conditions (e.g., snow/ice storms), take appropriate precautions.
6. Wherever possible, utilize the buddy system if you must travel or work in extreme temperatures.

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Cold Exposure

1. When working in cold environments, dress to stay warm and dry. Use rain gear, layered or insulated clothing as appropriate.
2. Observe co-workers for symptoms of frostbite and hypothermia. When necessary, use warming shelters or vehicle cabs for temporary relief. Seek medical attention when appropriate.
3. Walk carefully on snowy and icy surfaces.
4. When shoveling snow, be very careful to avoid overexertion.
5. Soaking wet clothing contributes to hypothermia and should be removed as soon as possible.
6. Use of vibrating tools in extremely cold weather could aggravate a circulatory condition called Raynaud's Syndrome and should be avoided by affected individuals.

Heat and Hydration

1. When working (or preparing to work) in areas of extreme heat, consume adequate and appropriate amounts of fluids to help avoid heat-related illnesses and dehydration. Use hydration coach to monitor fluid intake.
2. Plan work based on recommended action times. Provide adequate personnel for rotation.
3. Slowly build up a tolerance for heat exposure. Where appropriate, reduce action time accordingly.
4. When working in hot environments, wear appropriate clothing. Use ice vests if desired.
5. Take precautions to protect from overexposure to the sun (e.g., clothing, eye protection, sunscreen).
6. Permit workers to interrupt their work if experiencing signs of heat-related disorders or extreme discomfort.
7. Observe co-workers for symptoms of heat-related illness. When necessary, seek medical attention. Symptoms include but are not limited to dry, hot skin and high body temperature (heat stroke), moist clammy skin (heat exhaustion) and heat cramps.
8. Avoid heat-related illness by maintaining adequate levels of hydration.

This table provides general length of time between water breaks and corresponding hydration target for each hour of work. Have a hydration coach to ensure adequate fluid intake for workers.

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Temperature	Work Level	Maximum Minutes Worked Between Hydration Breaks	Hydration Target
<80	Normal	–	8-12 oz./hr.
80-85	Normal	–	8-16 oz./hr.
86-90	Normal	50	12-20 oz./hr.
91-95	Normal	45	16-24 oz./hr.
>96	Normal	40	24-32 oz./hr.

Hexavalent Chromium

1. Be aware of activities that may produce or disturb hexavalent chromium. Activities of concern include:
 - a. Hot work on or demolition of coated surfaces or chromium-containing steels (particularly stainless steel)
 - b. Welding or thermal cutting of any steel in confined spaces
 - c. Spray painting with chromium-containing paints and primers
 - d. Work activities disturbing fly ash, ceramic bricks or treated wood
2. Use exposure control methods including:
 - a. Substitution of less hazardous materials or processes
 - b. Engineering controls (such as ventilation)
 - c. Work practices (such as equipment wash downs or vacuuming, vacuuming and proper disposal of work clothing, hand/face washing, etc.)
 - d. Establishing “regulated areas” where the exposure limit might be exceeded
 - e. Use of personal protective equipment (such as coveralls, gloves, safety glasses, face shield, etc.) and respiratory protection
3. Where protective clothing and equipment is required for hexavalent chromium protection, use change rooms with separate, contamination-free storage facilities for street clothes.
4. Do not take contaminated clothing or equipment home.
5. Do not wear dusty or contaminated clothing into break rooms, lunch rooms or other areas where food and drink are stored or consumed.

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6. Remove contamination from coveralls (or other clothing) using a method that does not put dust into the air (e.g., vacuum dust from work clothing with a HEPA vacuum).
7. Where used, empty or change HEPA vacuums/filters in accordance with department or site work practice, to minimize exposure and to ensure appropriate waste disposal.
8. Do not blow off, shake off or do anything else to contaminated materials that could send dust or particulate debris into the air.
9. Do not dry sweep, shovel or brush hexavalent chromium dust or contaminated products. Use HEPA vacuum.
10. Wash face and hands before breaks and at end of shift.
11. Do not eat, drink, smoke, chew gum or tobacco, or apply cosmetics in regulated hexavalent chromium areas.
12. Label waste bags, bags of clothing or equipment or other containers of hexavalent chromium materials according to the Hazard Communication program in the H&S Manual. See your environmental professional for disposal guidance.
13. Do not enter a hexavalent chromium regulated area unless you are properly trained.

Hot Work Program

1. A hot work permit is required for any temporary operations involving flames or producing heat and/or sparks.
2. Before performing welding, cutting or grinding, evaluate and safeguard the work area for combustible items.
3. Use the business unit or location-specific hot work permit.
4. Assign a fire watch with a suitable fire extinguisher for welding, cutting and grinding operations in work areas with combustible materials, or where the fire or sparks cannot be contained in the immediate work area.
5. When using a fire watch, continuously monitor the hot work area while work is taking place and for 30 minutes following the completion of work. Then perform final inspection.
6. Ensure the person assigned to fire watch has been properly trained.
7. Keep welding, cutting and grinding areas clean and free from accumulations of trash, rags and other combustible items.

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8. All combustible materials must be removed or covered within a 35-foot radius of the hot work location.
9. For welding/cutting operations, use only friction or stationary striker to light a torch. Do not light torches with matches, cigarette lighters or hot work.

Housekeeping

1. Keep work areas, job sites and vehicles orderly, clean and free of hazards.
2. Properly dispose of scrap and waste materials at frequent and regular intervals or at the end of each shift.
3. Keep walkways and work surfaces free of oil, grease, water, ice and other slippery materials. Clean up spills immediately.
4. Keep walks, aisles, stairways and all other passageways clear of obstructions.
5. Identify, cover or mark temporary cables or cords passing through work areas.
6. Eliminate tripping hazards or restrict access to the area.
7. For trash, recyclables and other waste materials, do the following:
 - a. Keep waste in approved and properly labeled containers.
 - b. Keep oily rags in a covered, listed (UL/FM) container.
 - c. Safeguard sharp objects before disposal.
8. Ensure staged equipment does not create unsafe conditions by obstructing safe access to operating or emergency equipment, or by exceeding weight limits.
9. Use adequate lighting to perform work safely.
10. Keep access to emergency exits clear.
11. Keep rolling stock (pipe, conduit, all-thread, etc.) off of the floor or designate a marked storage area to eliminate trip hazards.

Hydrogen Safety (Generating Facilities)

1. Hydrogen is a colorless, odorless, flammable gas with a wide combustible range of 4 to 75 percent in air. Hydrogen is lighter than air and can collect in overhangs, ceilings or other confined areas.
2. Hydrogen gas burns with a nearly invisible flame and can be difficult to detect. Use extreme caution approaching areas where you suspect a hydrogen fire. If possible, isolate the source of the gas and allow it to burn out.

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3. Never allow hydrogen to mix with air inside a system or component. Always use an inert, intermediate purge gas such as carbon dioxide during purging and refilling operations on generators and hydrogen systems.
4. Follow all applicable station-specific continuous use procedures and Job Hazard Analyses (JHA) when purging, refilling generators and hydrogen dryers or transferring hydrogen gas.
 - a. Make a public address system announcement at the site prior to venting or transferring hydrogen gas.
5. Use nonsparking tools when working on systems containing hydrogen prior to venting and purging.
6. Only use replacement parts in hydrogen systems that are rated for hydrogen service.
7. Ensure purge gas flow rates do not exceed manufacturer's recommendations or procedure requirements when performing generator purges. Also, ensure flow regulators do not freeze up during gas transfer.
 - a. Verify the quantity of gas used for the purge (either by cylinder count or flow meter reading if installed).
8. Delivery vehicles, stationary tanks and tube trailers shall be properly grounded before transferring bulk hydrogen gas. Hydrogen gas is ignitable by static electricity.
9. Only use gas detection instruments that have specifically been calibrated for use with hydrogen when performing leak checks or verifying purge conditions. Hydrogen detection instruments must read below 4,000 PPM at the vents for a system to be considered safely purged.
 - a. Only trained personnel shall utilize gas detection instruments to verify gas levels during tasks associated with hydrogen gas and associated systems.
 - b. Training will include the completion of a Job Performance Measure (JPM) and an understanding of the specific monitor's limitations and maintenance requirements.
10. Hydrogen-containing systems shall be conspicuously posted per signage requirements from Hazardous Classified Locations assessments or as a minimum with "Danger Hydrogen Gas" signage that warns of the hazard and prohibits smoking, flames or hot work within 35 feet.
 - a. If hot work must be performed inside these boundaries, continuous hydrogen monitoring shall be performed in accordance with any additional hot work permit requirements.

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11. In Fossil Hydro Operations (FHO) Power Generation facilities, hydrogen system piping shall be painted yellow with "HYDROGEN" in black lettering, flow arrows and black bands every 20 feet.

• Industrial Hygiene Monitoring

1. Where health hazards exist, contractors are required to comply with OSHA regulations.
2. Where contractor's work may potentially expose other personnel working near or adjacent to potential health hazards, the contractor is required to communicate this information.
3. Contractors are to provide existing exposure assessments relevant to the tasks being performed to Duke Energy when requested and shall contain the following:
 - a. Administrative and engineering controls used to reduce exposure
 - b. Existing monitoring data to validate exposure levels
 - c. Names of contractors shall be expunged, and the data shall include no personally identifiable information
4. When exposure monitoring is needed for Duke Energy tasks, contractors are required to conduct their own exposure monitoring using validated methods as defined by OSHA or NIOSH. As with existing exposure assessments, contractors are to provide the results of this monitoring to Duke Energy when requested.
5. Duke Energy may elect to conduct exposure monitoring on contractor's workers based on business need.

Inorganic Arsenic

1. Do not enter inorganic arsenic regulated areas unless you are properly trained.
2. Use respirators, coveralls, gloves and other personal protective equipment as specified by supervision or H&S/EHS professional for work in inorganic arsenic regulated areas.
3. Vacuum coveralls (and shoes) with a HEPA vacuum before breaks and lunch and at the end of the work shift if wearing coveralls out of the regulated area. Note: Leave the respirator on while removing contaminated coveralls.
4. Wash face and hands prior to break. Shower at the end of the work shift.

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5. Never shovel or sweep fly ash and dust particulate (slag) unless vacuuming or other relevant methods (wet wash down) have been tried and found ineffective. Note: Obtain management approval before using one of these methods.
6. Where protective clothing and equipment is required for inorganic arsenic protection, use change rooms, with separate contamination-free storage facilities for street clothes.
7. Do not wear dusty or contaminated clothing into break rooms, lunch rooms or other areas where food and drink are stored or consumed.
8. Ensure that inorganic arsenic-contaminated protective clothing is:
 - a. Removed at end of the task or end of the shift (whichever comes first)
 - b. Placed in closed container that is labeled per the requirements of 29 CFR 1910.1018 – Inorganic Arsenic
9. Where used, empty or change HEPA vacuums/filters in accordance with department or site work practice to minimize exposure and to ensure appropriate waste disposal.
10. Never blow off, shake off or do anything else to contaminated materials that could send dust or particulate debris into the air.
11. Never carry coveralls, protective equipment or other contaminated materials home.
12. Certain activities, such as eating, drinking, smoking, chewing gum or tobacco, or applying cosmetics, are prohibited in regulated areas.

• Inspecting and Testing Poles and Structures

1. Metal poles and structures require visual inspection only.
2. All wood poles, including adjacent poles, require an inspection before climbing, working or changing load. Visually inspect all poles for any of the following signs of instability:
 - a. Decay, loose soil, green growth, damp conditions or other signs of possible weakness in the surrounding soil.
 - b. Pay attention to the landscape. Runoff can saturate poles with water, accelerating decay.
 - c. Wood separation, bird holes, rot, cracks and burn marks.
 - d. Rust or rot in guy wires and anchor rods that are attached to the pole or structure.
 - e. Any sign of instability in adjacent poles and structures.

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- f. Any slack in guy wires, which could indicate that anchor rods have pulled up out of the ground.
3. Hammer Sounding – Rap the pole sharply with a hammer weighing about 1.4 kg (3 pounds), starting near the ground line and continuing upward circumferentially around the pole to a height of approximately 1.8 meters (6 feet). The hammer will produce a clear sound and rebound sharply when striking sound wood. Decay pockets will be indicated by a dull sound or a less pronounced hammer rebound.
4. Prodding – Prod the pole as near the ground line as possible using a pole prod or a screwdriver with a blade at least 127 millimeters (5 inches) long. If substantial decay is present, the pole is unsafe.
5. “Rocking” of a wood pole to determine stability is NOT an owner-approved method and shall not be used during wood pole inspections.
6. If the pole is found to be unsafe to climb or to work from, it must be secured so that it does not fail while a worker is on it. The pole can be secured by a line truck boom, by ropes or guys, or by lashing a new pole alongside it. If a new one is lashed alongside the defective pole, work should be performed from the new one. Tag unsafe poles to prevent others from climbing.

Lead in Construction

1. Identify activities that may disturb lead-containing materials. Activities of concern include:
 - a. Disturbance (e.g., sanding, scraping, grinding, cutting, abrasive blasting, welding) of painted surfaces
 - b. Spray painting with lead-containing paints and primers
 - c. Maintenance on, or demolition of, structures that contain lead (paints, solder and roof flashing)
 - d. Removal or encapsulation of lead-containing materials
 - e. Construction, alteration, repair of structures or components that contain lead
 - f. Lead contamination/cleanup
2. Contact H&S/EHS professional to determine if lead exposure exists.
3. As practical, substitute less hazardous materials (such as lead-free paints) or processes (such as paint strippers) as the first choice to eliminate the airborne exposure potential.

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4. When indicated by exposure assessments, use exposure control methods, including:
 - a. Engineering controls (such as mechanical ventilation)
 - b. Work practices such as limiting work time, vacuuming and proper disposal of work clothing, hand/face washing, etc.
 - c. Limiting access into work areas for activities where the exposure limit might be exceeded
 - d. Use of personal protective equipment (such as coveralls, gloves, safety glasses, face shield, etc.) and respiratory protection
5. Where protective clothing and equipment are required for lead protection, use change rooms, with separate contamination-free storage facilities for street clothes.
6. Do not wear contaminated clothing into break rooms, lunch rooms or other areas where food and drink are stored or consumed.
7. Do not carry coveralls, protective equipment or other contaminated materials home.
8. Ensure that lead-contaminated protective clothing is:
 - a. Removed at end of the lead task or end of the shift (whichever comes first)
 - b. Placed in closed container, which is labeled per OSHA requirements
9. Remove contamination from coveralls (or other clothing) using a method that does not put dust into the air (e.g., vacuum dust from work clothing with a HEPA vacuum).
10. Wear respiratory protective devices for any lead-disturbing work, unless the work activity has specifically been identified as not requiring respirators.
11. Follow all company and/or location-specific requirements of the respiratory protection program.
12. Empty or change HEPA vacuums/filters in accordance with department or site work practice to minimize exposure and to ensure appropriate waste disposal.
13. Do not blow off, shake off or do anything else to contaminated materials that could send dust or debris into the air.
14. Do not sweep, shovel or brush lead dust or contaminated products (e.g., paint debris, abrasive blast) unless vacuuming or other equally effective methods have been tried and found ineffective. Note: Obtain management approval before using one of these methods.
15. Wash face and hands before breaks and at end of shift.

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16. Shower at the end of the shift after performing activities where lead concentrations exceed the PEL.
17. Do not eat, drink, smoke, chew gum or tobacco, or apply cosmetics in areas where lead work occurs.
18. Do not enter a lead-regulated area without proper training.
19. Collect, handle, label and properly dispose waste material (such as removed paint, abrasive blast material, HEPA filters, contaminated clothing or equipment). See H&S/EHS professional for specific requirements.

Lightning

1. Where applicable, use lightning detection to determine distance of lightning strikes. Detection may be determined by:
 - a. Duke Energy Meteorology guidance.
 - b. Government sources (Vaisala NLDN National Lightning Detection Network).
 - c. Lightning detection application.
 - d. Flash to bang calculation. Count the number of seconds from seeing a lightning strike to the time thunder is heard. Divide by 5. This is approximate distance in miles.
2. Follow business unit guidance where applicable.
3. Business unit-specific recommendations for work suspension:
 - a. Transmission and plant-based employees: Prepare for suspension at 15 miles. Suspend work at 8 miles.
 - b. Solar locations: Prepare for suspension at 30 miles. Suspend work at 10 miles.
 - c. Wind locations: Prepare for suspension at 60 miles. Suspend work at 30 miles.
4. Resume work activities when it is clear that the storm has passed or 30 minutes after the last strike.

⦿ Line of Fire Hazards

1. Eliminate injuries from line of fire hazards through job planning, engineering controls and body positioning.
2. Identify line of fire hazards before and while performing tasks. Discuss line of fire hazards. Take appropriate mitigation actions.

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3. Consider these as line of fire hazards: struck by; struck against; caught in/under/between; sharp objects; falling/flying/rolling objects; and hand tools/machinery.
4. Eliminate line of fire hazards where possible. Methods include use of physical barriers, machine guards for moving and rotating equipment, and falling object protection including toe boards/netting; exclusion zones; and tool securement.
5. Be aware of body position of all workers where line of fire hazards are present.

Lockout/Tagout for Facilities other than Transmission, Distribution and Generation

1. Workers shall be trained in the requirements of the lockout/tagout procedure in use prior to performing tasks that require lockout/tagout.
2. Identify all hazardous energy sources associated with the work activities.
3. Isolate hazardous energy sources, tag and lock energy-isolating devices, and relieve stored hazardous energy.
4. Before beginning work, verify by testing or operation that hazardous energy has been relieved.
5. Before restoring hazardous energy, verify work is complete and persons are clear of equipment.
6. Management and contractors will inform each other of their respective lockout/tagout procedures.
7. For transmission, distribution and generation activities, follow business unit-specific lockout/tagout procedures.

Machine Guarding

1. Before starting work using powered machinery or tools, ensure that guards:
 - a. Are in place so as to prevent contact with dangerous, moving parts by any part of the body (e.g., hands, arms) or clothing
 - b. Are firmly secured to the machine, if appropriate, and are made of durable material that will withstand the conditions of normal use
 - c. Are appropriate for the equipment
2. Do not create new hazards by having a shear point, jagged edge or an unfinished surface that can cause a laceration.
3. Report any broken or missing guards to your supervisor. Do not use the tool until repairs have been made.

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4. Before working, perform a pre-job safety assessment to identify potential hazards to the hand.
5. When working around machinery with rotating or moving parts:
 - a. Ensure gloves, ties, loose clothing and long hair do not become entangled in equipment.
 - b. Tie back long hair.
 - c. Button or properly roll up long sleeves, and tuck in shirttails.
 - d. Do not wear loose jewelry (e.g., necklaces, chains, cords) outside clothing.
 - e. Wear badge straps of a breakaway-type of material.

Methylene Chloride

1. Review SDS and labels to determine if products contain methylene chloride.
2. If you have the potential to be exposed to methylene chloride, you will need to have specific methylene chloride training beyond normal hazard communication requirements.
3. Use methylene chloride-free products where possible.

Motor Vehicle and Utility Vehicle Operations

Distracted Driving

1. Texting, reading texts and emailing are prohibited when driving company vehicles and when driving personal vehicles on company business.
2. Follow state and local regulations on use of cellphones when driving.
3. Focus on the primary task of driving. Keep the number of calls to a minimum amount and duration.
4. Use pagers and radios responsibly while driving.
5. Avoid other activities that may distract you from driving. Pull over or park in safe locations to perform these activities.
6. For commercial motor vehicles: Driver use of hand-held cellphones is prohibited when driving commercial motor vehicles. Hand-held cellphones shall not be used to make or receive phone calls, send or receive text messages or emails or access other applications (internet, etc.) while driving commercial motor vehicles. Use of hands-free devices is allowed but only if the call can be initiated, answered or terminated by touching a single button on the cellphone or headset.

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7. For non-commercial motor vehicles: Do not use a cellphone when driving unless necessary. If you have to use a cellphone, it must be used with a hands-free device.

Operational Practices

1. Operate all vehicles in a safe manner, using defensive driving techniques. Do not drive aggressively.
2. Drivers/operators shall have full responsibility for vehicles in their possession. This includes observing all federal, state and local laws and ordinances.
3. Drivers shall be properly licensed when operating company-owned, rented, leased vehicles or equipment, and personal vehicles when used on company business. Any license restrictions shall be adhered to at all times.
4. Before operating a vehicle, visually inspect it to determine whether the vehicle is safe to operate. Perform a "360-degree" inspection around the vehicle to be sure the area is clear. Do not operate unless equipment is in safe condition.
5. Seat belts shall be worn by the driver and passengers at all times when the vehicle or equipment is in motion. This shall apply to all company-owned, rented, leased vehicles or equipment, and to personal vehicles when used on company business or on company property.
6. Passengers in motor vehicles shall be in approved riding positions and restrained where occupant restraints are provided.
7. Lock unattended vehicles and remove keys to reduce the risk of vehicle theft.

Backing and Chocking

1. When parking, use the following order of preference:
 - a. Pull through into the parking space.
 - b. Back into the parking space, except for diagonal spaces.
 - c. Park front-end in only when (a) and (b) create a greater hazard.
2. When a second person is available, they shall assist the driver with backing.
3. Refer to additional business unit-specific procedures on backing and use of wheel chocks.
4. Complete a survey around the vehicle ("360 degrees") before entering the vehicle to identify and remove any hazards. Visualize your exit path.

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☛ Utility Vehicles

1. Operators should be familiar with the utility vehicle's operations and should read the owner's manual and follow the manufacturer's guidelines for recommended maintenance, usage, operation and personal protective equipment.
2. When operating utility vehicles, conduct pre-operational functional check of seat belts. Utility vehicles include tractor and utility cart type vehicles such as Polaris, Kubota, Deere, etc. It does not include amphibious vehicles or golf carts.
3. Driver and passengers shall use seat belts at all times when the vehicle is in transit.
4. Assess the terrain to be traveled prior to departure. Utilize the business unit terrain assessment procedure or checklist prior to proceeding into an area that has unknown terrain. Stay alert for holes, rocks and other hidden hazards in the terrain.
5. Workers riding in utility vehicles shall use safety handholds and proper foot positioning as needed to maintain stability while en route.
6. Operators of utility vehicles shall ensure that passengers are aware of changes in road/terrain conditions so they do not get thrown out of the cart. Avoid sudden starts, stops or turns.

Emergencies

1. In case of any vehicle trouble, pull off to the right side of the road, if possible, and use emergency flashers and warning signals.
2. Refer to the "Use in Case of an Accident Form" located in the company vehicles for actions to take if you have an accident in a company vehicle.

Incident Reporting

1. If an employee is in an accident involving a company-owned vehicle, leased (rental) or personal vehicle being used on company business, supervision or designee contacts H&S/EHS professional to enter information into eTRAC Incident.
2. If an employee has an injury from any kind of vehicle accident while on company business, supervision or designee contacts H&S/EHS professional to enter information into eTRAC Incident.
- ☛ 3. Employees who receive any citation or warning ticket while operating a Duke Energy-owned vehicle shall report the citation immediately to their supervisor and to the email DOT/CMV@duke-energy.com.

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Vehicle Ingress/Egress

1. Safely enter and exit vehicles by following these recommendations:
 - a. For larger vehicles, open door while on the ground.
 - b. For all vehicles, enter and exit using three points of contact and slide into/out of seat.
 - c. If using the steering wheel as a point of contact, ensure it is locked.
 - d. Scan ground for uneven or slick areas when exiting vehicles.

⦿ Operations in High Winds

1. Stop travel in vehicles and stop work, including climbing, when sustained winds reach tropical storm force velocity of 39 mph (18 mps).
2. Once sustained winds drop below 39 mph (18 mps), monitor wind gusts in excess of 39 mph (18 mps) for safe working and traveling.
3. In addition, follow aerial device manufacturers' requirements associated with prohibited operation in high wind conditions.
4. Contact Duke Energy Meteorology to determine local wind speeds. See Duke Energy Portal homepage for contact information.

⦿ Recovery of Stuck/Mired Vehicles and Equipment

1. If a vehicle or equipment becomes stuck or mired, immediately stop all work in the area and ensure personnel are safe.
2. Notify site management and H&S/EHS professionals as appropriate.
3. Where recovery requires the use of rigging to extract or place in an upright position, utilize professional recovery services. If professional recover service is not available or desirable, develop detailed plans/job hazard analysis for the recovery.
4. Consider all stuck vehicle recovery operations to be non-routine and plan accordingly.
5. Consider recovery efforts to be high risk depending on factors such as depth of vehicle, recovery slope or angle, unstable load, or vehicle overturned. High-risk extractions require significant planning and possibly engineering review including review of extraction rigging and rigging load ratings.
6. Once rigging equipment has been used for extraction purposes, remove it from service and conduct an evaluation to ensure it is safe before reusing. Consider identifying extraction rigging equipment and using it only for that purpose.
7. Follow business unit procedures where available.

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Natural Gas/Fuel Gas Safety (Generating Facilities)

1. Natural Gas is a colorless, odorless, flammable gas with a combustible range of 5 to 15 percent in air. Natural gas is lighter than air and can collect in overhangs, ceilings or other confined areas. Mercaptan is typically added to natural gas (at the local gas yard) as an odorant for safety at most generating facilities.
2. Never rely on your sense of smell to detect natural gas leaks. Always use combustible gas detection equipment calibrated for use with natural gas when performing tests or leak checks.
3. Natural gas-containing systems and equipment shall be conspicuously posted per signage requirements from Hazardous Classified Locations assessments or as a minimum with Danger Flammable Gas signage prohibiting hot work within 35 feet.
 - a. If hot work must be performed inside these boundaries, continuous gas monitoring shall be performed in accordance with any additional hot work permit requirements.
4. Extinguish natural gas fires by shutting off the source of the gas.
5. Use nonsparking tools when working on systems containing natural gas prior to venting and purging. Only use replacement parts in fuel gas systems that are rated for natural gas service.
6. In Fossil/Hydro Operations (FHO) power generation facilities, natural gas piping shall be painted yellow with "Natural Gas or Fuel Gas" in black lettering and flow arrows with green bands every 20 feet.
7. Follow applicable site-specific Continuous Use procedures and Job Hazard Analyses (JHA) for purging, venting and line breaking on natural gas containing systems and piping.
8. Before performing hot work on a fuel gas-containing system, it must be purged with an inert, intermediate gas such as nitrogen.
9. Combustible gas meter readings read at vents shall be below 10 percent LEL to be considered purged.
 - a. Only trained personnel shall utilize gas detection instruments to verify gas levels during tasks associated with methane gas and associated systems.
 - b. Training will include the completion of a Job Performance Measure (JPM) and an understanding of the specific monitor's limitations and maintenance requirements.
10. Hot taps required at FHO facilities shall only be performed by qualified natural gas company personnel.

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☛ Natural Gas Safety

General Information and Properties of Natural Gas and Propane

1. Natural gas and propane are odorless in their native state. Both are mixed with odorant that allows small quantities to be readily detected by a “rotten egg” smell.
2. Both natural gas and propane are colorless and nontoxic, but either can displace oxygen when concentrated, such as in confined spaces.
3. Natural gas will tend to rise since it is lighter than air, while propane is heavier than air and will tend to sink.
4. Natural gas is typically delivered to Duke Energy customers by underground pipelines. Above-ground facilities on the Duke Energy natural gas system include pressure regulating stations and metering facilities. Propane is delivered by truck to customer storage tanks.
5. Natural gas has a combustible range of 5 to 15 percent in air and requires a 1,100 to 1,200 degree Fahrenheit ignition source. The combustible range of propane is 2 to 10 percent in air and the ignition source must be 920 to 1,020 degrees Fahrenheit. Common sources of accidental ignition include open flame, switching lights or appliances on or off, smoking, or even static electricity.
6. The products of gas combustion normally include water vapor and carbon dioxide. However, when oxygen is limited or venting is inadequate, poisonous carbon monoxide can form. Other sources of carbon monoxide include cars warming up in garages and charcoal grills operated indoors.

Emergency Actions for Duke Energy Employees – Gas Odor Outdoors

1. If you smell natural gas outside, move to an area where the odor is no longer detectable.
2. If you are traveling, find a safe place to pull over to report the odor.
3. Report natural gas odors by calling the Duke Energy gas hotline at 800.752.7504 (NC, SC, TN) or 800.634.4300 (OH, KY). A Duke Energy Natural Gas Operations first responder will be dispatched to ensure that the area is “made safe” and that repairs are initiated.
4. Symptoms of carbon monoxide poisoning include:
 - Sudden flu-like symptoms
 - Dizziness, headache, sleepiness
 - Nausea or vomiting
 - Fluttering or throbbing heartbeat

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- Cherry red lips, unusually pale complexion
- Unconsciousness

Intrinsically Safe Devices for Gas Operations

1. Electronic devices used in the presence of combustible gas must be rated as intrinsically safe. Electronic devices that are not intrinsically safe are not allowed where combustible gas is present.
2. Intrinsically safe electronic devices are designed so that they will NOT become a source of ignition in the presence of a combustible gas.
3. Many electronic devices are NOT intrinsically safe. This may include flashlights, cellphones and doorbells. Electronic devices that are intrinsically safe will be marked.
4. Do not use electronic devices in gaseous environments unless you have been trained on the correct tool and know the meaning of the term intrinsically safe.

Encountering Damaged Natural Gas Facilities

1. If you encounter natural gas “blowing” from excavation damage or damage to an above-ground facility, it is important for personnel to remain at a safe distance away from the blowing gas.
2. Recognize that natural gas will rise.
3. If there is equipment near the blowing gas, do not attempt to move the equipment or cut off equipment that is still running until qualified Natural Gas Operations personnel can access the situation and the equipment can be moved safely.
4. Valves to cut off blowing gas should only be operated by trained Natural Gas Operations personnel.
5. Report the leak to the Duke Energy gas hotline by calling 800.752.7504 (NC, SC, TN) or 800.634.4300 (OH, KY).
6. If the natural gas has ignited, do not attempt to extinguish it. If natural gas is extinguished improperly, it may migrate to other areas and create a more dangerous situation.
7. If an explosion has occurred, be aware that there may still be active leaks in the area. Maintain a safe perimeter until a Duke Energy Natural Gas Operations first responder informs you that it is safe to re-enter the area.
8. Do not allow anyone to enter an unsafe excavation in order to expedite a repair of a natural gas line. The safest way to repair these leaks is for trained Natural Gas Operations personnel to stop the flow of natural gas by turning valves or digging remotely from the leak and “pinching off” the line.

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Damage Prevention

1. Locate underground utilities prior to soil disturbance. Where appropriate, contact 811 and follow the local regulations. Once you have approval to dig, proceed cautiously, checking positive response and looking for evidence of underground utilities that have not been marked. Hand dig as required.
2. If you see others digging or about to dig in an area where there are underground utilities, be proactive, take time to check the situation, and ensure that a utility locate has been requested and facilities marked. It may be appropriate to stop work.
3. A Natural Gas Operations representative should be on-site when anyone is digging near natural gas transmission pipelines. These critical high-pressure pipelines are usually in maintained rights of way with pipeline markers indicating their approximate location. If you see excavation in these locations, and there are no Natural Gas Operations personnel present, stop work and notify the Duke Energy gas hotline by calling 800.752.7504 (NC, SC, TN) or 800.634.4300 (OH, KY).

Office Safety

1. All desk and cabinet drawers shall be closed when not in use.
2. Only one file drawer shall be open in a cabinet at any one time.
3. Place heaviest loads in lower drawers or shelves to avoid "top loading."
4. Objects that present a hazard shall not be stored on top of cabinets or other storage enclosures.
5. Paper cutter blades shall be down and secured when not in use.
6. Electrically powered office equipment shall be operated in accordance with manufacturer's instructions.
7. When using power strips, follow manufacturer's recommendations. Do not overload outlets. Avoid connecting multiple power strips in series.
8. Keep combustibles to a minimum. Do not store combustible material, such as paper, in close proximity to electrical outlets and connections.
9. Use office chairs appropriately to avoid tipping. Do not tilt chairs such that they could tip over.
10. Do not stand on chairs, desks or tables. Use appropriate step stools or ladders.
11. Use handrails when available.
12. Do not use portable space heaters without prior approval from your supervisor and site/facilities management. If portable electric space heaters

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are used, they must be attended while in use, turned off after normal working hours and kept at least 3 feet away from combustible materials.

13. Avoid distractions while walking in office areas such as using cellphones, reading materials, etc.
14. Begin meetings with safety/environmental discussion including emergency evacuation procedures, location of exits and AEDs, and site-specific emergency information.

Paint Chip Cleanup

1. Before cleaning up paint chips, determine if the chips contain asbestos, lead or hexavalent chromium. If chips contain asbestos, lead or hexavalent chromium, this section applies.
2. Determine how long the cleanup is expected to last.
3. If cleaning paint chips is expected to take more than 15 minutes, contact your H&S/EHS professional.
4. If cleanup can be accomplished in less than 15 minutes, use one or more of these options:
 - a. Manually pick up paint chips and place in a plastic bag.
 - b. Use a high-efficiency particulate air (HEPA) filtered vacuum that has been designated for use with asbestos or lead.
 - c. Use a tack cloth or roller.
5. In addition, comply with these requirements:
 - a. Do not sweep, blow or vacuum paint chips with a vacuum that is NOT a high efficiency particulate air (HEPA) filtered vacuum.
 - b. Do not use compressed air to clean paint chips.
 - c. Do clean the area in a pattern that will minimize stepping on or crushing the paint chips.
 - d. As necessary, have the vacuums emptied and cleaned by appropriately trained personnel.
 - e. Store the collected paint chips and waste in waste receptacles labeled for asbestos or lead.

Pedestrian Safety

1. Cross at crosswalks and obey crossing signals.
2. Look for oncoming vehicles and cyclists in both directions.
3. Do not text or talk on a cellphone when crossing the street. Take your time.

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4. Make eye contact with approaching drivers and wait for them to acknowledge you before you cross in front of a turning vehicle.
5. Stop in parking garages and wait for oncoming traffic.

Personal Protective Equipment

General

1. Workers shall maintain PPE in a sanitary and reliable condition.
2. Workers shall inspect PPE prior to use and immediately following any incident that could have caused damage.
3. Damaged PPE shall not be used.
4. Workers shall adhere to manufacturer's recommendations for PPE.
5. A hazard assessment must be performed before PPE is issued or used in order to ensure that the prescribed PPE is appropriate for the hazard(s) present.

Eye and Face Protection

1. Eye and face protection that complies with acceptable consensus standards (such as ANSI Z87.1) must be used whenever there is a hazard due to particles, fumes, liquids, gases or radiation that could injure the eyes.
2. Minimum eye protection shall consist of safety glasses with side shields. Side shields must meet applicable standards for quality, durability and protective ability.
3. When face shields are used, safety glasses with side shields or equivalent must be worn beneath the face shield.
4. Goggles or other tight-fitting eyewear (i.e., spoggles) that creates a seal around the eyes shall be worn when safety glasses with side shields will not provide adequate protection.
5. Goggles must be worn where a risk of chemical splash is present. Unvented goggles should be used where chemicals that are eye irritants and have high vapor pressures are used. Goggles may be worn over regular prescription glasses to provide protection equivalent to safety glasses with side shields.
6. Welders and helpers (e.g., fire watch) must use shaded eye protection appropriate for the type of welding or cutting being performed. A table with minimum shade requirements can be found in OSHA regulations at 29CFR1910.133 (a) (5).
7. Work with lasers above Class IIIa requires eye protection as determined by the laser safety officer assigned to evaluate the work and shall be appropriate to the type of laser and energy of the beam being used.

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- ✦ 8. When using a power tool for grinding or cutting, the operator shall wear an impact-rated face shield.
- ✦ 9. When using a power grinder, sealing eyewear such as goggles or spoggles shall be worn behind a face shield.

Head Protection

1. Hard hats and suspensions should be replaced periodically.
2. Head protection is required when workers are exposed to injury due to falling objects, electric shock, burns or other head injury hazards.
3. Hard hats or helmets must meet or exceed acceptable standards such as ANSI Z89.1.
4. Where electrical hazards are present, hard hats must be nonconductive and meet requirements for Class E (up to 20 kV).
- ✦ 5. Hard hat caps (partial brim) shall be worn in the forward orientation unless other PPE is in use that requires the helmet to be reversed and the orientation is made in accordance with manufacturer requirements.

Foot Protection

1. ANSI/ASTM-rated protective footwear (safety boots or shoes) shall be worn where there is danger of foot injury from falling and rolling objects or from objects that might pierce the foot.
2. Safety boots/shoes shall have safety toe caps (metallic or composite) and steel shanks when protection against penetration is required. Clip-on protective toe caps may be worn over regular shoes.
3. Wear protective footwear as required by business unit procedures.

Hand Protection

1. Gloves appropriate to the task shall be used to protect the hands and wrist area from exposure to heat, cold, water or steam, chemicals, sharp edges, abrasion, electrical contact and other hazards as necessary. Gloves may also be used for protection against dirt and other nontoxic materials, as well as while operating machinery or handling materials.
2. When protection is needed from cuts and punctures, ensure gloves with the proper cut and puncture resistance are selected and used.
3. Consult with H&S/EHS professional for assistance in selecting proper hand protection.

Clothing/Body Protection

1. Protective clothing shall be used when hazards that could cause injury to the body are present, including but not limited to arc flash, chemical exposure,

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protection against cold or heat, exposure to dirt, dust or liquids or exposure to hazardous materials in an emergency response action.

2. Don and doff protective clothing in a manner that prevents contaminating your body. Dispose of contaminated clothing properly.

Traffic Vests/Rain Gear

1. A minimum of Class 2 traffic vest/rain gear apparel shall be worn while working on the ground within the road right of way or any other work location where visibility of worker is needed for protection.
2. Class 3 traffic vest/rain gear apparel shall be worn when flagging traffic within the road right of way. Class 2 traffic vest/rain gear is acceptable for flagging traffic inside company-controlled access zones not related to public roads.
3. Flame-resistant reflective vests/rain gear apparel shall be worn when there is potential to be exposed to an arc, flash or contact.
4. Traffic vest/rain gear apparel shall be visible at a minimum distance of 1,000 feet.
5. When traffic vest or rain gear apparel is required to be worn, it must be securely closed using zippers, Velcro, etc.

Powered Industrial Trucks

1. Powered industrial trucks shall be operated in accordance with manufacturer's recommendations.
2. Only trained and authorized operators shall be permitted to operate a power lift truck.
3. Powered industrial trucks shall be inspected before being placed in service each day or before each shift. Document inspection.
4. A powered industrial truck shall not be used when deficiencies are found. The truck shall be repaired before it is placed back into service.
5. The rated capacity shall not be exceeded. When these vehicles are equipped with supports, they shall be utilized to prevent tipping.
6. When the powered industrial truck is parked or left unattended, the operator shall place the forks flat on the floor, neutralize controls, turn off the ignition key, set hand brake and follow business unit-specific policies or procedures to prevent unauthorized use.
7. While loading or unloading material, forks may be left in the raised position if there is an ergonomic concern and precautions have been discussed.

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8. The operator may leave the seat of a parked and running powered industrial truck only if:
 - a. the operator is in line of sight
 - b. the operator is within 25 feet of the controls
 - c. the powered industrial truck is secured
 - d. the forks are flat on the floor
 - e. the controls are neutralized
 - f. the hand brake is set
9. Modifications shall not be made without written approval from the manufacturer.
10. Attachments must be considered as part of the load and used in accordance with manufacturer's recommendation.
11. Free-rigging (suspending load from the tines with a sling) is prohibited.
12. Operator shall not allow anyone to stand or pass under the elevated portion of any powered industrial truck.
13. The operator shall not descend a ramp or grade with the load in front.
14. Only the driver shall ride on the powered industrial truck, unless an additional seat is provided.
15. Powered industrial truck operators and passengers shall wear seat belts where provided.
16. The operator of an order picker or high-lift rider truck shall wear approved fall protection and lanyard. The lanyard shall be attached to an approved overhead member of the platform at a point located above and near the center of the platform.
17. When forward view is obstructed, the driver shall travel with the load trailing or get assistance.
18. Operators shall properly stack and balance loads for transporting.
19. Operators shall travel with forks or load as close to the ground as possible and spread the forks for proper balance and stability of load.
20. Arms, legs and feet shall remain inside the powered industrial truck when moving.
21. Hands and arms shall not be extended through openings in the mast area.
22. The charger shall be turned off before connecting or disconnecting from an electric powered industrial truck.
23. Before driving or operating a powered industrial truck inside or on a truck or trailer, those trucks or trailers shall be secured and wheels chocked.

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24. Travel speeds shall be dictated by surface conditions.
25. The horn shall be sounded before going through doorways or around blind corners.
26. Plan routes to avoid hazards of overhead power lines. Use spotters when necessary.

Pressurized Equipment

1. Before dismantling valves, flanges, access covers and similar apparatus associated with boilers, pressure vessels or pressure piping, the pressure shall be relieved and the equipment adequately drained. Follow lockout/tagout and line-breaking procedures as appropriate.
2. When an access cover to a pressurized system is bolted into place, a minimum of two loosened bolts should be left in the cover prior to breaking the seal. Additional bolts may be required based on expected pressures and shock load. When possible, the bolts shall be opposing.

Preventing Slips, Trips and Falls on Same Level

1. To avoid slips, trips and falls on same level, workers should consider these best practices:
 - a. When walking, workers should identify all pathway hazards and take the necessary precautions to avoid injuries associated with overhead obstacles and slip and trip hazards. These hazards may include: shelving, awnings, limbs, thresholds, floor matting, uneven ground, elevated curbing, and icy or wet surfaces.
 - ⊛ b. Wear footwear that is in good condition and correct for the situation. Consider using high-traction footwear on icy surfaces where appropriate. Remove high-traction slip-on footwear prior to driving and before entering buildings.
 - c. At building entrances, where provided, use adequate means to clean water/snow/debris from shoes.
 - d. When on potentially slick surfaces, slow down, take shorter steps and keep center of gravity within stride.
 - e. Keep walking surfaces clean. Address spills immediately.
 - f. Do not walk with an obstructed view.
 - g. On stairs, hold handrails where available.
 - h. Avoid multitasking while walking. This includes dialing/texting on cellphones and mobile devices or reading materials.

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Radio Frequency Devices and Exposure

Exposure

1. Radio frequency (RF) exposures from cellphone antennas on transmission towers, antennas on rooftops, wireless devices on distribution poles and other devices shall be evaluated and communicated to exposed workers.
2. Workers shall obey all posted signs, assume all antennas are active and maintain safe distance from all antennas.

Wireless Devices and Antennas on Poles and Streetlights

1. The following procedures shall be followed when working on or around distribution or streetlight poles with antennas or wireless equipment attached:
 - a. Look for signage related to "Radio Frequency Exposure."
 - b. Where no signage or a blue "Notice" signage exists, workers may work without restrictions.
 - c. Where yellow "Caution" or red "Warning" signage exists, workers shall:
 - i. Turn off the power to the wireless devices at the disconnect switch.
 - ii. Complete all work on the pole.
 - iii. Turn on the power to the wireless device at the disconnect switch.

Transmission Towers with Antennas and Microwave Devices Attached

1. Minimum requirements for ascending towers:
 - a. Do not climb towers with unsafe accumulations of snow and ice.
 - b. At least two workers shall be on-site when anyone is on a tower.
 - c. At least two workers trained in first aid/CPR shall be on-site.
 - d. Workers shall inspect base of tower prior to climbing.
 - e. Complete Communication Tower Daily Safety Checklist initially and every day work is performed (required by North Carolina OSHA only).
 - f. Fall protection is required at heights above 4 feet.
2. Before beginning work on a transmission tower with cellphone antennas or microwave devices, workers or supervisors planning the work shall:
 - a. Assess potential RF hazards. Identify type of antennas on the tower.
 - b. Determine if RF Safe Distances described below can be maintained for the work planned. If RF Safe Distances cannot be maintained, contact supervisor to have antennas de-energized.

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- c. Ensure yellow RF Caution signs are in place at the base of the tower.
 - d. Be trained and authorized to perform the work.
 - e. Obey all posted signs.
 - f. Assume all antennas are active.
3. Workers shall maintain safe distances from antennas. Safe distances from transmitting antennas have been determined by calculation and field measurements. The following are working distances by workers spending extended periods of time in the area. Momentary passage through an area, as would be the case of a worker climbing a tower, has been determined to be safe.

Panel Antennas

Maintain a 6-foot working distance from the front of panel antennas. Being less than 6 feet from the side, bottom, top and back of the antennas is not a hazard.

Omnidirectional Vertical Antennas

Maintain a 4-foot safe working distances around omnidirectional antennas in all directions.

Microwave Dish Antennas

Microwave dish antennas are to be assessed on an individual basis. Do not look directly into a microwave dish or into an open waveguide.

Workers are not to access areas within 10 feet of the front of a transmit microwave dish in the main beam of the signal. If work is to be performed in these areas, contact the Telecommunications department.

If antennas are on the tower, assume a yellow RF Caution environment exists even if the yellow RF Caution signs are not in place at the base of the tower. Notify supervisor if the signs are not posted at the location.

Antennas and Microwaves on Rooftops

1. Obey all signs and barricades. Contact Duke Energy Telecommunications department for assistance.

Radio Use in Generating Facilities

1. When adding new equipment or performing services that require a radio at a Duke Energy generation station, the radio frequencies to be utilized by the equipment must be approved by the Duke Energy job sponsor (engineer, project manager, equipment owner, etc.) prior to installation or use.

Radiography

1. Radiation restricted areas must be established by the radiographer before exposing the radiation source.
2. Restricted areas must be identified by magenta and yellow "DANGER RADIATION" signs and tape. Radiation signs should be posted in English and Spanish if the workforce includes non-English speaking persons.
3. Only authorized individuals are permitted inside established radiation restricted areas.
4. Authorized individuals entering radiation restricted areas must be appropriately trained and have personnel radiation dosimeters (e.g., film badges, alarming rate meters).

Respirable Crystalline Silica

1. Identify activities that may disturb respirable crystalline silica materials. Activities of concern include:
 - a. Disturbance (e.g., cutting, sawing, drilling, jackhammering, chipping) of concrete, cement, bricks or asphalt
 - b. Demolition of structures that contain concrete, cement or bricks
 - c. Activities involving coal or fly ash that cause significant dust releases
2. Contact H&S/EHS professional to determine if respirable crystalline silica exposure exists.
3. Do not perform respirable crystalline silica disturbing activities unless you are properly trained.
4. Never aggressively shovel or sweep fly ash, slag, cement, concrete or coal dust.
5. When indicated by exposure assessments, use exposure control methods, including:
 - a. Engineering controls (such as wetting, tools with shrouds and vacuum attachments).
 - b. Limiting access into work areas for activities where the exposure limit might be exceeded.
 - c. Use of respiratory protection, where required. Contact H&S/EHS professional to determine if needed.
 - d. Follow all company and/or location-specific requirements of the respiratory protection program.

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6. Empty or change high-efficiency particulate air (HEPA) vacuums/filters in accordance with department or site work practice to minimize exposure and to ensure appropriate waste disposal.
7. Never blow off, shake off or do anything else to contaminated materials that could send dust or particulate debris into the air.
8. Certain activities, such as eating, drinking, smoking, chewing gum or tobacco, or applying cosmetics, are prohibited in areas where respirable crystalline silica exposure can occur.

Respiratory Protection

1. Use acceptable engineering controls to control harmful gases, smokes, dust, mist, sprays or vapors as the primary method to prevent airborne exposures.
2. If engineering controls are not feasible, appropriate respiratory protection must be used.
3. Before using a respirator or being fit tested, the user must receive training and medical clearance.
4. Any time a respirator is worn, the wearer must be free of facial hair between the respirator sealing surface and the face or any that may interfere with valve function.
5. The user must inspect respirator before use.
6. The user must perform positive and/or negative pressure fit checks each time the respirator is put on to verify proper fit and operation.
7. The user must exit the contaminated work area and remove respirator if it malfunctions or any breathing difficulty occurs, or they can taste or smell any contaminant.
8. Do not leave respirators unprotected in contaminated work areas during breaks or intermittent work.
9. The user must be familiar with proper care and cleaning requirements for the type of respirator being used.
10. Store the respirator in a sealed plastic bag.
11. Do not store respirators on their sealing surface. This may distort the face mask.
12. Where appropriate, the worker must return issued respirators to the designated collection point after each use for proper cleaning, inspection, maintenance and storage.
13. Employees must only use company-approved respiratory protection.

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14. The employee will notify his or her supervisor, an H&S/EHS professional or management of medical changes or concerns when wearing respiratory equipment.
15. Follow appropriate instructions for voluntary use of disposable respirators where it has been determined that no respiratory hazard exists.
16. Provide suggestions, feedback and concerns about the respirator program or your respirator to your supervisor or H&S/EHS professional.

Safety Signs and Barricades

1. Make safety signs readily visible at all times when a hazard exists.
2. Use safety signs that can withstand the environment.
3. Use red "Danger" tape and signs to warn of immediate hazards. Locate tape and signs at such distance from the hazard that persons cannot accidentally come into contact with the hazard.
4. Use yellow "Caution" tape and signs to designate potential hazard areas. Locate tape and signs so as to restrict access into the area.
5. When using warning tape or signs if the hazard is not obvious, add specific information about the hazard and the name of a contact person.
6. When working within a posted area, use the personal protective equipment necessary to avoid injury.
7. Neatly install the ribbon/tape and keep it intact as long as the hazard exists.
8. Promptly remove the ribbon/tape and/or signs when the hazardous condition is corrected.
9. Do not use ribbon/tape as a barrier to prevent a fall or in place of a required guardrail. If ribbon/tape is used to warn of a floor opening or hole, ensure a person is continuously stationed at the opening to prevent accidental entry.
10. In switchyards, use red Danger tape to designate energized areas next to work areas. Attach red tape or red flags to designate safe heights on structures, columns or poles above, which workers may not climb because of energized equipment or circuits.

Scaffolds

1. Workers who perform work from and who erect or disassemble scaffolds shall be trained.
2. Inspect all scaffolds before use or at the start of each work shift. Pay attention to footing, planking, guardrails, mesh, connections, weld, rust, ladder condition or other access means.

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3. After significant events that could affect a scaffold's structural integrity, re-inspect the scaffold.
4. Read and follow instructions on scaffold tags.
5. Use personal fall arrest equipment on supported scaffold platforms higher than 6 feet if guardrails are not installed.
6. Use personal fall arrest equipment and a guardrail system on single-point and two-point adjustable suspension scaffolds.
7. Use personal fall arrest equipment on boatswain's chairs, catenary scaffolds, float scaffolds, needle beam scaffolds and ladder jack scaffolds.
8. Where tools, materials or equipment falling from a scaffold could strike workers below, do one or more of the following:
 - a. Install a toe board or equivalent.
 - b. Mark the area below with caution tape or install barricades to prohibit workers from entering.
 - c. If materials are piled higher than the toe board, use a screen around the perimeter of the scaffold.
9. Do not use a defective scaffold. Ensure a WARNING, DO NOT USE tag is put on a faulty scaffold until it is repaired.
10. Use the access provided with the scaffold.
11. Do not accumulate too many tools, materials and debris on the scaffold or overload it beyond the rated capacity.
12. Do not stand on or lay tools, materials and equipment on any scaffold railing.
13. To prevent tipping, do not load a scaffold unevenly.
14. During high winds and storms, do not work on an outside scaffold.
15. Do not work on an ice-coated scaffold.
16. Ensure mobile scaffolds rest on a solid, level footing.
17. If wheels or casters are provided, lock them to prevent accidental movement on scaffolds.
18. When asked to move mobile scaffolds:
 - a. Get help so the pressure of pushing is not concentrated in one point on the scaffold.
 - b. Ensure scaffold will move across level floors that are also free of obstructions and openings.
 - c. Apply force close to (5 feet or less) the base of the scaffold.
19. Workers may "ride" a mobile scaffold if all of the following conditions are met:

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- a. The floor or surface the scaffold will travel on must be within 3 degrees of level and free of obstructions and openings.
 - b. The minimum dimension of the base of the scaffold must be at least half its height.
 - c. Tools, materials, equipment and debris must be removed before the scaffold is moved.
 - d. Workers riding the scaffold know about the movement of the scaffold.
 - e. Workers are not on any part of the scaffold that extends over wheels, casters and other supports.
20. For other than mobile scaffolds, scaffolds shall not be moved horizontally while workers are on them, unless they have been designed by a registered professional engineer specifically for such movement.
21. Before performing work from a scaffold, identify and safeguard any electrical hazards.
22. When moving mobile scaffolding, avoid obstructions including piping equipment, instrumentation, electrical lines, etc.
23. Keep the scaffold's working surface clean and organized at all times.
24. When the job is completed, remove all items from the scaffold.
25. Do not erect, use, dismantle, alter or move scaffolds so that they or any conductive material handled on them comes closer to exposed and energized power lines than:
- a. For lines under 300 volts – 3 feet
 - b. For lines over 300 volts under 50 kV – 10 feet
 - c. For lines over 50 kV – 10 feet plus 4 inches for every 10 kV over 50 kV
26. Do not use the frame on welded tubular frame-supported scaffolds to access upper levels unless the distance between the integral rungs is 16 ³/₄ inches or less and the rungs are uniformly spaced. Otherwise, use an extension or hook-on ladder.
27. Use tag lines or equivalent measures to control swinging loads when they are being hoisted onto or near scaffolds or if the loads could contact the scaffold.
28. On suspension scaffolds inspect wire ropes for defects before each work shift and after any occurrence that could affect a rope's integrity. Replace ropes if:
- a. Any physical damage impairs the function and strength of the rope.
 - b. Kinks impair the tracking or wrapping of rope around the drum(s) or sheave(s).

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- c. Six randomly distributed broken wires are in one rope lay, or three broken wires are in one strand in one rope lay.
 - d. Abrasion, corrosion, scrubbing, flattening or peening causes the loss of more than one-third of the original diameter of the outside wires.
 - e. Heat damage caused by a torch or any damage caused by contact with electrical wires is evident.
 - f. The secondary brake has been activated and has engaged the suspension rope during an over-speed condition.
29. Ensure that wire rope clips on suspension scaffolds are inspected and retightened to the manufacturer's specifications at the start of each work shift.
30. Ensure the wire ropes on suspension scaffolds are shielded, treated to resist corrosive substances or made of material that is not adversely affected by the substance being used when acids and other corrosive substances are used.
31. Shield suspension ropes when performing a heat-producing process.
32. Reduce the possibility of welding current arcing through the suspension wire rope when welding is performed on suspension scaffolds by ensuring the following:
- a. An insulated thimble is used to attach each suspension wire rope to its hanging support.
 - b. Excess suspension wire rope and any additional independent lines from grounding are insulated.
 - c. The suspension wire rope is covered with insulating material extending at least 4 feet above the hoist.
 - d. The tail line below the hoist is insulated to prevent contact between it and the platform.
 - e. The portion of the tail line that hangs free below the scaffold is guided and/or restrained so that it does not become grounded.
 - f. Each hoist is covered with insulated protective covers.
 - g. In addition to a work lead attachment required by the welding process, a grounding conductor is connected from the scaffold to the structure.
 - h. Ensure that the size of this conductor is at least the size of the welding process work lead, and this conductor is not in series with the welding process of the work piece.
 - i. If the scaffold grounding lead is disconnected at any time, the welding machine is shut off.

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- j. An active welding rod or uninsulated welding lead is not allowed to contact the scaffold or its suspension system.

Telecommunications Hazards

1. Optical fibers shall never be examined with the naked eye.
2. Ultraviolet-curing lamps shall only be used in designated holders. Special ultraviolet-proof glasses shall be worn when it is necessary to examine energized lamps.
3. When splicing optical ground wire (OPGW) cable, the cable shall be grounded to the transmission structure ground.
4. Bare wire communication conductors on power poles or structures shall be treated as energized lines unless protected by insulating materials.
5. Rubber matting and appropriate rubber gloves with glove protectors shall be used when working on the telephone company side of the high-voltage isolation equipment.
6. Fiber-optic splicing glass shards shall be removed from worksites daily.

Tools

General

1. Work only with safe, approved tools and equipment properly suited for the job. Use tools in accordance with manufacturer's recommendations.
2. Modification and fabrication of tools and equipment shall be made only if approved. Consult engineering and business unit-specific procedures as appropriate.
3. Inspect tools before use.
4. Handle tools so that contact with exposed energized conductors is avoided.
5. Use proper tools for aligning bolt holes. Remove bolts or rivets in a controlled manner that will prevent injury or damage.
6. Do not tamper with safety switches. Do not modify, tape, bypass or otherwise defeat critical safety functions of devices, including dead man switches and other safety switches.

Grinders

1. Use proper personal protective equipment. Utilize manufacturer's safeguards.
2. Portable grinders shall be equipped with constant pressure control switches.
3. Keep grinding wheels properly dressed and turning true. Use the correct grinding wheel.

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4. Inspect grinding wheels before use.
5. Immediately before mounting, all wheels shall be closely inspected and sounded by the user (ring test) to make sure they have not been damaged.
6. Secure bench grinders properly. Adjust work rest to within 1/8 inch to the grinding wheel. Adjust tongue guard to no more than 1/4 inch between wheel and guard.
7. Drills, grinders and sanders shall not be placed on work surfaces or handed to another worker until the equipment has stopped rotating.

Chain saws

1. Follow manufacturer's instructions for operation and adjustment.
2. Wear PPE including hard hat, goggles or face shield with safety glasses, hearing protection, hand protection and foot protection.
3. Wear leg protection (chaps) when using a chain saw while standing on the ground. Does not apply to pole saws.
4. Chain saws, when not in use, shall be properly protected with a blade guard or case.
5. Gasoline-powered chain saws shall be equipped with a continuous pressure throttle control system that will stop the chain when pressure on the throttle is released.
6. The chain saw shall be started with the chain brake engaged.
7. Chain saw shall not be operated with one hand.
8. Do not cut any material other than wood.
9. Ensure that the chain saw chain does not contact any obstruction such as other logs or branches, rocks, fencing, nails or spikes.
10. Avoid contact of the bar tip with any object to reduce kick-back hazards.
11. The chain saw shall be started at least 10 feet from the fueling area.

Hand tools

1. Keep knives and other cutting tools properly stored when not in use. When using knives and cutting tools, use proper hand protection and avoid drawing the knife/cutting tool toward you or others.
2. Tools with sharp edges should have guards when stored or in transit to work locations.
3. When using a screwdriver or any tool with puncture capability, do not hold work in the hand in such a manner that slipping will cause injury.
4. Tools shall not be painted, taped or modified in any way that would prohibit inspection for visual cracks or defects.

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5. Coverings on the handles of tools shall not be considered as electrical insulation or as a substitute for voltage-rated gloves.
6. Chisels, punches, drifts and similar tools shall be kept free of mushroomed heads to prevent flying fragments.
7. Nonconductive measuring devices shall be used when taking measurements on or near exposed energized electrical conductors or equipment.
8. Handles shall be installed on files and rasps before use.
9. Open-end wrenches shall be used with force in the proper direction. Do not overload wrenches by using extensions. Ensure good footing when using wrenches to prevent slipping.
10. When using a striking face (slugging) wrench, use caution. The wrench, when being struck by a hammer, shall not be held by the hand or foot. Use a properly tied rope or other practical means to secure the wrench.
11. Do not throw tools between other workers or locations. Use a tool bucket or other suitable container and handline to raise or lower tools between elevations.
12. Use diagonal or side cutters or other suitable tool to cut tie wraps.
13. Use of personal knives is prohibited for work-related tasks. Use appropriate cutting tools.

Transmission Substation/Switchyard Entry Requirements

This section applies to all Duke Energy employees and contractors. It defines requirements for entry into Duke Energy substations and switchyards.

Personal Protective Equipment

- ★ 1. Clothing
 - a. It is required that all individuals wear 100 percent natural fiber clothing to enter the substation.
 - b. Long-sleeved flame-resistant (FR) shirt and pants must be worn when performing work on energized substation equipment or when within 10 feet of exposed energized substation equipment. Flame-resistant clothing exceptions for control houses can be found in T&D Work Methods and contractor supplemental requirements.
2. Hard hats
 - a. Hard hats shall be worn at all times inside a substation.
 - b. Hard hats may be removed inside a control enclosure (i.e., control house, work trailer, etc.) when there is no exposure to injury due to falling objects, electric shock, burns or other head injury hazards.

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3. Safety shoes

- a. Safety shoes must be worn at all times inside a substation.
- b. Acceptable safety shoes must, at a minimum:
 - Have a safety toe
 - Have electrical hazard (EH) rated soles
 - Have substantial uppers made of leather (or equivalent)
 - Cover the entire foot, with no openings
 - Have slip-resistant soles

Approved safety shoes must meet the requirements associated with ASTM F-2413, "Standard Specification for Performance Requirements for Protective Footwear."

4. Eyewear

- a. Eye protection shall be worn at all times when inside a substation.
- b. When inside the control enclosure, eye protection may be removed as long as there is no hazard due to particles, fumes, liquids, gases or radiation that could injure the eyes.

5. Additional PPE could be required depending upon the tasks to be performed and may include such items as gloves, traffic vests or face protection.

Jewelry

1. All persons entering a substation shall remove all jewelry prior to entry. This includes, but is not limited to: finger rings, necklaces, earrings, body piercings, chains, wrist bands, wrist watches, key rings/chains, metal or plastic bracelets or studs.
2. Prescription safety glasses with side shields and MedicAlert necklaces, bracelets and shoe tags are not considered jewelry and are exempt from this requirement but must be secured to prevent potential contact, flash or catching hazards.
 - a. MedicAlert necklaces and bracelets shall be worn under FR clothing or rubber protective gloves if working on energized conductors or other energized equipment.

Training/Escort

1. Individuals requesting unescorted physical access to substations and/or switchyards must complete the required Substation Entry Training provided in that region. However, training alone should not be relied upon as the sole determination that an individual understands the hazards that exist within a substation but is one prerequisite to granting unescorted access.

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- a. Qualified persons that have Substation Entry Training as part of their job qualifications and routine training are exempt from this requirement.
 - b. Training completion must be able to be verified through MyTraining Learning Management System (LMS) by having course code HS0005E (Basic Substation Entry; Computer Based Training) or COT329E (Substation Entry Guidelines; Instructor Led Training) completed.
 - c. Contracted companies shall ensure all employees/subcontractors who require unescorted entry to substations are trained to comply with OSHA 1910.269(a)(2)(i) and (ii) and supply documentation upon request.
2. Site-specific training may also be required for certain generation sites, customer sites or other specialized sites. Always check with local management for additional training or entry qualification prior to arriving on-site.
 3. Individuals who do not meet the training and experience requirements for unescorted access shall be permitted on-site as long as they are escorted by a qualified individual during the duration of their visit.
 4. Lock substation entrances that are not observed by an attendant.

Notification of Arrival/Departure

Individuals are required to immediately notify an employee in charge (EIC) or site contact if applicable upon arrival and departure if other work is taking place at the substation. Individuals should consult the EIC or site contact regarding other work taking place in the substation and review the pre-job briefs (PJB) of the other work taking place to ensure understanding of all work taking place and potential impact to the work or task being completed by the individual or group arriving on the site.

1. Upon arrival, if no other group is already on-site, the EIC of the group shall hang a sign on the entry gate that indicates the EIC name and contact number in order to alert future individuals arriving on-site that there are already individuals working on the site. If other workgroups arrive to perform work, the workgroup leads will determine who will act as the overall Site Contact for the site. Note that only a single sign is required with a single name and number indicating the EIC or Site Contact.
2. Individuals are required to provide notification to the appropriate control centers immediately upon arrival at a site as well as immediately upon departure from the same site through the Substation Integrated Voice Response (IVR) system. The IVR system can be reached by dialing 800.820.9365. Note: This does not replace the requirement for additional

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contacts that may be needed for coordination of work with any Transmission Control Center, Distribution Control Center, Plant Control Room or other operating authority.

3. Specific locations may have additional site-specific procedures for arrival and departure such as local alarms that may need to be disabled/enabled upon arrival/departure.

Vehicle Movement

1. Upon entering the gate of any substation, a travel plan discussion must be initiated. If the substation is occupied, notification to the lead person must be made upon entry. Prior to entering, ensure the substation gate is secured so it does not swing into the moving vehicle. The travel plan discussion must include the proposed drive path, the vehicle positioning plan and the obstacles to maneuver. Only vehicles needed for the job task should enter the substation.
2. A 360-degree view of all sides, front and back, over and under, of the vehicle shall be made just prior to vehicle movement.
3. A vehicle guide shall be used when available if vehicle is operated within 10 feet of any device within the substation fence. Backing should be avoided unless:
 - a. It is the safest option
 - b. All hazards are identified and avoided while backing
 - c. The vehicle is operated at a safe speed

When backing, all applicable company rules must be followed.

4. A maximum travel speed of 10 mph shall be observed.

Trenching and Excavations

Avoiding Underground Utility Dig-ins

1. Locate underground utilities prior to soil disturbance. Where appropriate, contact utility locating services. Examples include digging, trenching, excavating, post hole digging, drilling, augering, pile driving, grading, etc.
2. Follow the Cardinal Safe Digging Rules (CSDR) in Transmission and Customer Delivery:
 - Identify the presence of underground utilities.
 - a. Contact 811 to secure valid locates.
 - b. Obtain a positive response.
 - c. Exercise due diligence.

Note: Substations are exempt from 2a and 2b. When digging in

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a substation, other effective means will be used to determine if energized wire or other underground hazards exist before digging.

- Dig safely.
 - a. Visually identify all marked underground facilities and determine tolerance zone.
 - b. Soft dig in the tolerance zone to fully expose all facilities before utilizing any mechanized equipment. Soft digging does not include use of power tools. It can include vacuum excavation. It does not include probing soils with metal rods.
 - c. Utilize the right tool for the job, including vacuum technology.
- Evacuate and establish safe perimeter.
 - a. Do not create ignition sources.
 - b. Immediately report damages.

Trenching and Excavation Requirements

1. Ensure a trench and excavation permit is completed prior to trench and excavation activities. Business units may have equivalent alternatives.
2. No worker shall enter a trench or excavation deeper than 5 feet unless it has been inspected by a competent person.
3. Each worker in an excavation shall be protected from cave-in by an adequate protective system to consist of either sloping, shielding or shoring, except when:
 - a. Excavations are made entirely in stable rock or
 - b. Excavations are less than 5 feet in depth and there is no potential for cave-in.
4. A competent person shall select the protective systems for trenches less than 20 feet deep. A registered professional engineer shall select protective systems for excavations over 20 feet in depth.
5. For trenches deeper than 4 feet, provide a stairway, ladder or ramp and locate it so that no more than 25 feet of lateral travel is required to access.
6. Workers who are exposed to vehicular traffic must wear high-visibility vests or other garments.
7. Workers shall not work under loads handled by lifting or digging equipment.
8. A warning system must be utilized when mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have clear and direct view of the edge.

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9. Atmospheric testing is required where oxygen deficiency (less than 19.5 percent oxygen) or a hazardous atmosphere could exist.
10. When ventilation is used to reduce the level of atmospheric contaminants to an acceptable level, testing must be conducted as often as necessary to ensure continuing safety.
11. Emergency rescue equipment must be readily available where hazardous atmospheric conditions exist or can reasonably be expected to develop.
12. Workers must be protected when working in excavations where water has accumulated or is accumulating.
13. Daily inspections of excavations, adjacent areas and protective systems must be made by a competent person for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres or other hazardous conditions.
14. If evidence of a possible cave-in, failure in the protective system, hazardous atmosphere or other significant concerns are found, all affected workers must be removed from the hazardous exposure until rendered safe.
15. Inspections shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when worker exposure can be reasonably anticipated.
16. To keep soil piles from falling into the trench, clear edges of excavations back to at least 2 feet.
17. Provide walkways where workers or equipment are permitted to cross over excavations. Use guardrails where walkways are 6 feet or more above lower levels.
18. Barricade open, unattended excavations.

o Vegetation Management

Cardinal Vegetation Rules (CVR)

Follow the Cardinal Vegetation Rules (CVR) in Transmission and Customer Delivery.

1. Adhere to drop/fell zone procedures.
2. Utilize fall protection.
3. Adhere to minimum approach distances (MAD) and grounding requirements.

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General

Vegetation management contractors shall comply with applicable OSHA standards and with ANSI Z133, Safety Requirements for Arboricultural Operations. In addition, this section applies.

Every worker is responsible for his or her own safety while on the job site and shall comply with all requirements.

Drop/Fell Zones

1. The drop zone is defined as the area beneath workers aloft involved in arboricultural operations and/or where the potential exists for struck-by injuries from falling objects.
2. Workers overhead shall visually check the drop zone prior to making the first cut.
3. Ground staff shall inform arborists/lineworkers aloft before entering the drop zone under the tree or operating noisy machinery such as chain saws and brush chippers, which could hinder communication.
4. In manual tree felling operations, non-involved workers shall be positioned at a distance from the tree at least two times the height of the tree or trunk being removed until the chain saw operator and/or crew leader communicates it is safe to approach more closely.
5. When felling a tree, the Manual Tree Felling Procedure steps defined by ANSI Z133 Arboricultural Operations shall be followed.
6. The drop/fell zone must be identified and secured. The drop/fell zone shall be marked by the use of suitable signs, cones and/or barriers.
7. A pre-established form of communication shall be agreed upon and documented in the Job Briefing prior to commencing with work aloft or manual tree felling.
8. All verbal, audible or visual communications between ground personnel and the arborists/saw operator require command-and-response.
9. Communication can be whistle, hand signals, etc. and must be effective during the operation of equipment or machinery that hinders audible communication.
10. If more than one aerial lift is working within one span, for instance to access vegetation over or under the conductors, both lifts shall operate either above or below the conductors at one time.

Personal Protective Equipment

1. Contractors are to ensure the appropriate use of eye and face protection in accordance with ANSI Z87.1 and the Personal Protective Equipment section

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- of the EHS Handbook. Exception: Contractors operating chain saws are not required to use face shields unless the need for an additional level of protection is identified during the hazard assessment.
2. Contractors regularly supporting Transmission and Distribution Vegetation Management shall use non-gauntlet work gloves when performing ground work. This includes, but is not limited to, activities that expose individuals to cuts and punctures. Examples include: sharpening blades, working on chain saws, handling materials and tools in beds of trucks, and handling timbers, logs or cut debris. Exception: Glove use when operating a chipper is at the discretion of the contractor. Due to the potential risk of snagging when gloves are used, they shall be non-gauntlet gloves.
 3. Contractors regularly supporting work on Transmission and Distribution Vegetation Management shall wear protective footwear that complies with ASTM F2413. At least one shoe of each pair shall be clearly marked. Requirements include impact resistance (IR or I/75) and compression resistance (CR or C/75). In addition, footwear shall be: safety toe of either steel or composite; substantial over the ankle, lace-up uppers made of leather or other puncture-resistant material; non-slip soles with a substantial heel. Exception: When performing tasks that are subject to walking in water and wet land conditions, contractor is exempted where rubber boots or waders are used. Also, dedicated herbicide applicators shall use over-the-ankle boots and are not subject to other requirements.

Water Safety

Working Over or Near Water

1. Workers working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved personal flotation devices (PFD).
2. When fall protection is used and will prevent persons from falling into water, personal flotation device is not required.
3. Prior to and after each use, personal flotation devices shall be inspected for defects that would alter their strength or buoyancy. Defective units shall not be used.
4. Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.
5. At least one lifesaving skiff shall be immediately available at locations where workers are working over or adjacent to water.

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Working on Watercraft/Boats

1. When in a watercraft, wear Coast Guard-approved personal flotation devices.
2. Prior to and after each use, the personal flotation devices shall be inspected for defects that would alter their strength or buoyancy. Defective units shall not be used.
3. Ensure operators have demonstrated skills and/or training to operate watercraft safely.
4. Ensure all watercraft meet U.S. Coast Guard requirements.
5. Ensure watercraft longer than 16 feet are equipped with a Coast Guard-approved throwable personal flotation device.
6. Prior to getting on or off boats, survey the boat ramp or dock for surface conditions. Look out for slippery surfaces and take precautions as appropriate.

Working on Barges

The following applies to barges used for maintenance and construction around dams and generating plants. It does not apply to coal barges.

1. When working on a barge, wear U.S. Coast Guard-approved Type I, II, III or V personal flotation devices. Inspect personal flotation device before and after each use. Note: Personal flotation devices must be available but are not required to be worn on structural barges with substantial guardrails.
2. Ensure availability of a Coast Guard-approved 30-inch life ring with 90 feet of line and at least one permanent ladder that will reach the surface of the water from the top of the barge.
3. When combustible materials are present, ensure fire extinguishers are readily available.
4. Ensure safe access/egress to and from barge.
5. Ensure handrails are installed, unless their presence is a more significant safety hazard.
6. Ensure all barge connections are in place before operation (e.g., barge-to-barge, spud wells-to-barge and anchorage).
7. Ensure engineering has approved all barge modifications.
8. Designate and maintain unobstructed walkways/aisles at all times.
9. Use and maintain anti-skid material on walking/working surfaces.
10. Safely secure all material/equipment to the barge deck.
11. Ensure operators of equipment (e.g., cranes, drills) are familiar with the equipment and can demonstrate the skills necessary to safely operate it from an unstable platform (e.g., barges, dredges).

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Diving

1. For diving requirements, see OSHA 29CFR 1910 Subpart T, Commercial Diving Operations.

Welding and Thermal Cutting – Health Exposures

1. Do not clean with compressed air. Use HEPA vacuums or other means that do not disperse dust into the air.
2. Do not take contaminated protective clothing or equipment home.
3. Do not enter eating/drinking area with work clothing unless dust has been removed (in a manner that does not disperse dust into the air).
4. Whether working in the weld shop or in the field, position yourself so that your breathing zone is not in the fume plume, regardless of the relative hazard of the process. If work conditions prevent proper positioning, use ventilation to direct fumes away from welders, cutters and helpers.
5. When using welding screens around your work, arrange screens so that restrictions to ventilation are minimized.
6. Position the exhaust system takeoff near enough to the electrode to ensure maximum fume capture when using local exhaust ventilation.
7. Do not use oxygen for ventilation purposes.
8. Where ventilation or natural conditions do not control welding/cutting fumes from reaching the workers' breathing zones, use appropriate respirators.
9. When possible, remove all coatings by chemical or mechanical means (with local exhaust ventilation) prior to thermal cutting. Remove a "cut line" of at least a width of 3 to 4 inches. If coating removal is not possible, use ventilation and/or respiratory protection.
10. Prior to removing or disposing of coating materials, determine if the coating contains lead or hexavalent chromium. See your location H&S/EHS professional for guidance.
11. Before applying heat, verify that metal is clean of any solvents (particularly chlorinated solvents), oils or other materials that may cause hazardous decomposition products.
12. Do not perform welding or thermal cutting activities within 200 feet of the storage of chlorinated solvents.
13. Evaluate potential fume hazards. Review product SDS and/or hazard label, ventilation options and PPE. Coordinate with H&S/EHS professional to determine if adequate exposure assessments have been completed for the specific activity.

• Work Zone Safety

General

1. Follow state and local regulations for establishing safe work zones.

Temporary Traffic Control Zones

1. Temporary traffic control zones established by Duke Energy employees shall comply with the Duke Energy Work Zone Field Manual or the applicable Business Unit Work Zone Program annex.
2. Temporary traffic control zones established by Duke Energy contractors for Duke Energy employees shall comply with Federal Manual on Uniform Traffic Control Devices (MUTCD), applicable state and local work zone requirements, and the following:
 - a. Temporary traffic control zones shall include traffic cones a minimum of 36 inches in height and a minimum of 12 pounds in weight.
 - b. A work zone whistle or air horn for flagger(s) shall be used as an audible alert system to warn of vehicles encroaching the work zone.
 - c. Flaggers shall use retro-reflective stop/slow paddles or retro-reflective red flags when permitted by state or local regulations. The paddles shall be 24 inches by 24 inches on a 7-foot staff.
 - d. Except in emergency situations, flagger stations shall be illuminated at night.
 - e. Increase required flagger crew size by one flagger for specified high-risk activities. The additional flagger provides relief and acts as a traffic spotter. High-risk activities include:
 - i. High traffic volume with high speed
 - ii. Intersections with high traffic volume
 - iii. Night work with high traffic volume
 - iv. When portable temporary rumble strips are utilized

Note: Volume and speed classifications are as defined in MUTCD or specific state regulation, whichever is more stringent.

Environmental Sections

Aerosol Can Management

1. Aerosol cans are considered hazardous waste unless they no longer contain useful product and they reach atmospheric pressure (no propellant remains in the container).
2. The aerosol can is considered empty if it has no more than 3 percent by weight of the total capacity of the container.
3. Empty aerosol cans can be recycled as scrap metal or disposed in the regular trash.
4. Defective aerosols can be collected and stored as hazardous waste in a Department of Transportation-approved container in a Satellite Accumulation Area (SAA). Do one of the following:
 - a. Place a hazardous waste label on the storage container and mark it "Defective Aerosols for Disposal."
 - b. Collect as nonhazardous waste to be punctured by a "qualified individual" to remove the contents and recycle the metal. Contact your field environmental/EHS professional to determine what constitutes a qualified individual.
5. Return defective aerosol cans to the manufacturer, if possible.
6. Treat defective aerosol cans that cannot be returned as hazardous waste. The defective aerosol can must have a secure cap or the valve stem removed, and it must be lab packed for disposal.
7. If you have questions about the proper handling of aerosol cans, contact your supervisor or field environmental/EHS professional.

Air Permitting

1. Proper air permits for the site must be secured prior to starting any work activities that may potentially result in new or modified air emissions.
2. Partner with an environmental/EHS professional to complete the Duke Energy Environmental Requirements Review Checklist (see page 127) to identify potential activities that could trigger the need for an air permit. Generally, the following activities need to be considered:
 - a. New/modified stationary combustion sources (e.g., emergency generators, engines, boilers, turbines, etc.)
 - b. New/modified material handling equipment (e.g., storage silos, tanks, transfer points, conveyors, etc.)

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- c. New/modified sources of fugitive dust (e.g., storage piles, haul roads, material drop points, etc.)
 - d. New/modified process with the potential to emit any pollutant to the atmosphere
3. Contact an environmental/EHS professional with any questions regarding the proposed project or activity, including whether existing permits cover the scope of work or if a modified permit will be required.
4. Construct and operate all equipment in accordance with the specifications and locations provided in the air permit application. If a change is needed, notify your supervisor and an environmental/EHS professional immediately.
5. Ensure that an environmental/EHS professional is provided copies of all documentation required in the permit (i.e., as-built drawings, certificates, etc.). Some permits allow for the construction of equipment and others allow for the operation of emission sources. Additionally, the permit may require notifications and submittals based on operation dates. Prior to initial operation of any piece of equipment addressed in a permit, contact an environmental/EHS professional to confirm proper permissions have been obtained.
6. Because the permit may require a number of notifications or submittals based on different project milestones, ensure that an environmental/EHS professional is included on all project communications related to schedule. Also, notify them of any changes or delays.
7. Route all regulatory correspondence or interpretation questions related to the project and/or permit through an environmental/EHS professional. Only designated environmental/EHS professionals are allowed to interface directly with regulatory personnel.

Containment Systems

1. Identify all oil/water separators and other containment systems at your location and know what drains into them and where they discharge.
2. Include oil/water separator operation inspections in operator rounds. Review regularly for any unusual conditions, alarms or petroleum discharge, where applicable.
3. Operate and maintain these systems as recommended by the manufacturer and document in the approved work management system.
4. Never use oil/water separators for oil storage.

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Oil and Chemical Containment Structures

1. Conduct preventive maintenance of oil and chemical containment structures, including nonearthen berm containment structures that are greater than 55 gallons in volume, as prescribed within the work management system, at a three-year frequency.
2. Focus inspections and maintenance activities on risks associated with spills or unpermitted discharges.
3. All bulk storage container drainage valves must be securely closed when not in use by authorized personnel.
4. Drain oil or chemical bulk storage containment areas in a manner to prevent an uncontrolled discharge.
- ⊕ 5. Inspect secondary containments periodically (as specified in the Spill Prevention, Control and Countermeasure (SPCC) plan). Inspections must be performed on all oil sources, secondary containments, loading/unloading areas and spill response equipment, as specified in the SPCC plan. If the containment is not dry, the area must be inspected by a person trained in oil handling and the facility SPCC plan (i.e., eLearning activity ENC005 or equivalent) prior to opening the valve.
6. Document all inspections and containment draining activities. Inspection records must include the name of the inspector and date of the inspection.
7. Retain inspection records at the facility (or at a designated location for unmanned facilities) for a minimum of three years.
- ⊕ 8. It is critical that facility personnel actively verify the position of manual drain valves located at high-risk containments. At fully staffed sites this shall be done and documented daily. At unstaffed generation sites they shall be checked and verified on a biweekly basis. At other unstaffed facilities they shall be checked and verified monthly. Containments are designated as high risk if they meet one or more of the following criteria:
 - a. Listed as a large spill potential (LSP) containment in FHO
 - b. Located adjacent to a storm drain with unimpeded flow to waters of the U.S. (WOTUS)
 - c. Located within 125 feet of WOTUS
 - d. Stores chemicals where the storage volume exceeds the regulatory Reportable Quantity (RQ) or
 - e. Identified by the business unit.

Note: The use of engineered drainage devices and/or systems that prevent the passage of petroleum products but allow rain water to discharge from spill

containments may be used in lieu of or in addition to drain valves if approved by the business unit.

Contaminated Soil

1. Any known soil contamination, environmental restrictions, engineering controls or environmental investigation results should be discussed with your supervisor and the field environmental/EHS professional prior to performing any clearing, grubbing, stripping, excavation, potholing, trenching or other land-disturbing activities.
2. Before beginning land-disturbing activities, partner with the field environmental/EHS professional to complete an Environmental Requirements Review Checklist (see General Environmental Requirement Review section).
3. Contact your supervisor and an environmental/EHS professional immediately if you encounter previously unknown contaminated soil during land-disturbing activities. If an environmental/EHS professional is not immediately available to respond to the discovery, contact the Spill Coordinator Hotline as described on page 147.
4. Do not spread, stockpile, transport or dispose contaminated soil prior to contacting your supervisor or the field environmental/EHS professional.
5. A site Environmental, Health and Safety Plan must be reviewed and approved by an environmental/EHS professional before disturbing contaminated soil.

Cultural Resources

1. Cultural and archaeological resources include older cemeteries and monuments, historic buildings and structures (50-plus years) or their remains, historic or Native American sites, ancient artifacts (e.g., pottery, arrowheads, etc.), clusters of brick, stone or shell, rock paintings or rock carvings and other items of historic or archaeological value.
2. At all times, avoid or minimize the impacts to cultural resources due to land-disturbing activities such as new construction, expanding, clearing rights of way, etc.
3. Stop work immediately if you discover a cultural resource (e.g., grave, artifacts, archaeological site, human bones, etc.) while working on a Duke Energy project or property.
4. Do not handle or touch the discovered item and notify your supervisor and an environmental/EHS professional.
5. The environmental/EHS professional will contact the appropriate Duke Energy professionals responsible for performing cultural resource evaluations and provide further instructions.

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Decommissioning/Demolition Activities

1. Prior to mobilizing a crew to complete decommissioning or demolition activities at a site or facility, partner with an environmental/EHS professional to complete an Environmental Review Checklist (see page 127).
2. Evaluate or address the following prior to beginning the job:
 - a. Review activities that may affect surface waters, streams, rivers, wetlands or other sensitive environments to determine if permits will be needed. Follow all applicable regulations.
 - b. Submit applicable permits and notifications prior to beginning work if project will disturb one or more acres of land.
 - c. Complete an endangered species evaluation. Contact the field environmental/EHS professional for guidance.
 - d. Complete a hazardous material building inspection if warranted.
 - e. Develop a stormwater management plan and implement best practices, or develop a stormwater pollution prevention plan if required by permit.
 - f. Determine a process for interacting with an agency inspector.
 - g. Determine a process for handling material containing asbestos, including making any necessary notifications to the appropriate environmental/governmental agencies (county/state) and proper disposal.
 - h. Contact the field environmental/EHS professional before initiating a coal pile closure project to ensure that the appropriate procedures are incorporated and the necessary permits are obtained.
 - i. Contact the field environmental/EHS professional before initiating the reuse of demolition materials to ensure appropriate procedures are incorporated and any necessary material tests or reuse approvals are obtained.
 - j. Determine a process to minimize fugitive dust.
 - k. Determine paint removal and sampling processes.
 - l. Determine piping inspection and removal processes.
 - m. Determine a proper storage and management process for solid and hazardous waste. Consider station generator status when planning work to eliminate hazardous waste that could accumulate over station limits.

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3. Evaluate materials such as caulk, paint, mastics and sealants to determine PCB content through proper sampling procedures. Results will determine disposal requirements. Evaluate materials for lead and asbestos on a case-by-case basis. Contact the field environmental/EHS professional for guidance with material disposal testing requirements.
4. Evaluate and test oil from transformers and other oil-filled electrical equipment for PCB content. Any oil with PCB content greater than 50 parts per million (PPM) must be disposed of as PCB-containing oil. Any oil-filled electrical equipment manufactured after 1978 and marked "NON PCB" does not require PCB testing.
5. Contractors are responsible for developing their own Spill Prevention Control and Countermeasure (SPCC) Plan for the decommissioning/demolition activity if there is not an existing SPCC plan in place or the plan is insufficient per 40 CFR 112. This should include the quantity of on-site petroleum, location, type of secondary containment, and frequency of secondary containment and container inspections.
6. Determine the location of all waste accumulation areas. Ensure that all required regulatory inspections are conducted. Work with an approved Duke Energy waste vendor to ensure proper disposal of all site wastes, including materials to be recycled.
7. Contact the field or project environmental/EHS professional for additional support.

Drinking Water

1. In general, drinking water at Duke Energy facilities should be purchased from municipal water sources and should not be supplied by Duke Energy-owned systems.
2. Where Duke Energy is the system owner and operator, the system is regulated and must follow specific regulations before being placed into service and during operation.
3. Construction, expansion or modification of a regulated drinking water system requires a permit before work begins. General system maintenance does not require a permit but may require follow-up disinfection and testing.
4. Operation permits may be required before placing a new drinking water system in operation.
5. Each regulated drinking water system is required to have a minimum of one certified operator assigned. The operator must hold a valid certificate issued by the State Environmental Certification Board, which is equivalent to or exceeds the class of the facility. Re-certification requirements vary.

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6. It is the responsibility of the certified operator to be knowledgeable of federal, state and local regulations that are applicable to their system and ensure that the system is operated in compliance with regulations, this includes verifying all materials used in construction, expansion, operation, treatment and maintenance of a system are certified for said use by NSF International.
7. Systems are required to be sampled at representative locations in the system. Each system shall have a sampling plan that is reviewed and adjusted to describe compliance sampling required and the proper time period. Samples shall be taken in accordance with procedures acceptable to agency with regulatory authority.
8. Laboratories performing compliance analytical work MUST be certified for drinking water testing by appropriate agency and approved by Duke Energy.
9. Cross connection between potable and nonpotable systems is prohibited.
10. Appropriate backflow prevention is required between any public system and Duke Energy-owned systems.
11. Required records (which vary by state) must be kept at the system location.
12. If illness is suspected to have been caused by drinking water, contact the field environmental/EHS professional.

Environmental Requirements Review Checklist

General Environmental Review Requirements

1. Duke Energy complies with all regulations, statutes, permits obligations and policy requirements applicable to its existing and planned facilities. Environmental requirements can be complicated and often require interpretation. State and local permitting and regulatory requirements may also be applicable. As a result, project managers, engineers and work leaders must consult with an environmental professional before starting a project.
2. The Environmental Requirements Review Checklist procedure (ADMP-ENV-EVS-00021) assists individuals in identifying potential environmental requirements when planning projects for new or existing facilities, process modifications and maintenance activities, or when making changes at Duke Energy facilities.
3. The checklist covers many compliance considerations such as chemical control, hazardous and nonhazardous waste management, air compliance and permitting for new construction, new waste water discharges, water permitting, drinking water, asbestos and lead abatement, stormwater erosion and sedimentation, wildlife management and demolition activities.

Completing an Environmental Requirements Review Checklist

1. Complete the checklist early in the project development process to ensure that any environmental permitting or design considerations can be included in the project scope and schedule. Contact an environmental/EHS professional to start the environmental review process.
2. Fill out the checklist based on knowledge of the project work scope.
3. Include work scope details in the checklist comments section or as an attachment (specifications, work plans, drawings, aerials, SDS sheets, etc.) that will provide environmental personnel with enough project detail to perform an adequate review.
4. Submit the completed checklist and supporting information to the field environmental/EHS professional for the project location. If a field environmental/EHS professional is not available, send the checklist directly to Environmental Services for review.
5. The field environmental/EHS professional will review the checklist and provide the project manager with timely feedback regarding any necessary actions to build into the project scope to ensure compliance from a permitting and facility compliance perspective. This feedback can be delivered in many forms but must be timely and accurate to avoid delays in project performance.
6. It is the field environmental/EHS professional's responsibility to involve Environmental Services subject matter experts (SME) as needed to ensure complete and accurate feedback to project management personnel.
7. Notify the field environmental/EHS professional if the project scope changes following the initial review. The project manager must ensure that any additional environmental compliance actions are identified and completed.

• Environmentally Acceptable Lubricants (EALs)

1. Environmentally Acceptable Lubricants (EALs), if accidentally released into the environment, result in reduced environmental harm, compared to conventional hydrocarbon-based lubricants. Depending on the EAL product, spill reporting requirements vary considerably from non-reportable to similar to conventional lubricants. Fines and penalties resulting from spills of an EAL may be less severe than for the same release of conventional lubricants, though the regulatory response cannot be predicted with certainty.
2. There are three properties that an EAL must meet to be classified as "EAL compliant." The lubricant must have all three of these properties:
 - a. Be readily biodegradable

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- b. Have low aquatic toxicity
 - c. Be non-bioaccumulative
 3. Consider evaluating the following equipment for possible conversion to EALs:
 - a. Equipment with a history of reportable lubricant spills
 - b. Equipment over "Waters of the United States"
 - c. Equipment within 100 feet of "Waters of the United States"
 4. Changing the lubricant type in a component shall be considered a configuration change. Prior to converting a lubricant to an EAL, the following factors must be addressed to avoid problems as a result of the change:
 - a. Is the new lubricant "EAL compliant"?
 - b. Is the EAL listed as "Approved" in the Duke Energy Approved Chemical List?
 - c. Does the EAL meet the lubrication needs of the machine?
 - d. Will spill reporting requirements change?
 - e. Is the new lubricant compatible with the existing lubricant?
 - f. Are there potential changes in sampling, relubrication and filter replacement interval(s)?
 - g. Are there potential changes to lubricant storage and handling requirements?
 - h. What is the lubricant cost?
 - i. Are there potential changes to contamination control measures (moisture, particulate, other lubricants)?
 - j. Are there potential changes to waste disposal/handling procedures?
 5. Contact your field environmental/EHS professional for guidance and recommendations on evaluating equipment for conversion to an EAL.

Fugitive Dust

1. All Duke Energy facilities have a general requirement to minimize fugitive dust emissions. Fugitive dust is particulate matter that becomes airborne and is not emitted from a stack or vent.
2. Follow documented fugitive dust management plans and procedures at all times. The field environmental/EHS professional can provide copies of plans upon request.
3. Take additional control measures if the existing controls are ineffective (e.g., changing site or atmospheric conditions).

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4. Use Best Management Practices (BMPs) applicable to the job, project or site to reduce the possibility for fugitive dust to leave the property. The field environmental/EHS professional can provide a list of BMPs upon request. A few examples:
 - a. Maintain good housekeeping throughout the plant/project site.
 - b. Ensure material storage piles are properly stabilized.
 - c. Consider using stabilizers if the material or pile will be inactive for an extended period of time. Contact the field environmental/EHS professional for a list of approved materials.
 - d. Water the roads frequently enough to prevent dusting conditions. Implement an on-site speed limit to minimize the amount of dust generated from vehicle movement.
 - e. Ensure that trucks and other material handling equipment (e.g., conveyors) are covered to minimize exposure to wind.
 - f. Minimize exposed surfaces for storage piles. Items to consider include pile height, slopes and total area exposed.
5. Contact your supervisor or the field environmental/EHS professional for guidance and recommendations on controlling fugitive dust emissions.

Hazardous Material Transportation

1. Hazardous material transportation is any process related to handling, packaging, marking, labeling, placarding, storing, moving, loading and unloading of hazardous materials, and responding to emergency situations while such materials are in transportation.
2. A hazardous material is a substance or material that the Department of Transportation (DOT) has determined to pose an unreasonable risk to health, safety and property when in transport. Examples of DOT hazardous materials are:
 - Paints or solvents
 - PCBs (≥ 1 pound)
 - Asbestos ($\geq 1\%$ friable)
 - Lithium and lead-acid batteries
 - Pesticides or herbicides (mosquito repellent)
 - Compressed gas cylinders (propane, sulfur hexafluoride)
 - Fuels (gasoline or diesel)
 - Laboratory chemicals
 - Acids or bases

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3. DOT regulations govern hazardous material (HAZMAT) transportation. Employees and contractors performing these functions are considered DOT HAZMAT employees. Always consult business unit procedures for guidance before shipping equipment or storage containers that contain hazardous materials (e.g., compressed gas).
4. All DOT HAZMAT employees are required to have training that includes general awareness, safety, security awareness and function-specific training. Initial training must be given within 90 days of employment with Duke Energy.
5. Employees may perform HAZMAT transportation functions before completing the initial training if they are under the direct supervision of a properly trained and knowledgeable employee. All HAZMAT employees must receive recurrent training at least once every three years.
6. DOT's Materials of Trade (MOT) exception is widely used within Duke Energy. The MOT regulations provide exceptions from the hazardous materials regulations for certain small quantities of hazardous materials when transported and used by Duke Energy. Duke Energy requires individuals who ship materials, per the MOT regulations, are trained within 90 days of employment by Duke Energy and take refresher training at least once every three years.
7. Contact your supervisor or the field environmental/EHS professional for more information regarding hazardous material transportation.

Land-Disturbing Activities

General

1. Consult with an environmental/EHS professional when planning any land disturbance. Any use of land that results in a change in the natural cover or topography and that may cause erosion or contribute to sedimentation is considered a land-disturbing activity. This includes altering the quality and quantity of stormwater runoff.
2. Notify the field environmental/EHS professional of any regulatory site visits or inspections as soon as practical. Environmental Services will coordinate any communications with regulatory agencies (federal, state or local).
3. Ensure any site inspection documents are maintained and readily available on-site.
4. Review any permits to ensure that the required documentation and inspections are being completed and that there are clear owners for these activities.

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5. Ensure that the erosion control measures are installed in accordance with approved plans. If changes are made or the project scope extends past the existing limits of disturbance, contact an environmental/EHS professional prior to implementing the change.

Erosion Control in Environmentally Sensitive Areas

1. Minimize any land-disturbing activities within the project area. No land grubbing or grading shall occur when working in environmentally sensitive areas such as streams and wetlands or floodway/floodplain areas without a permit.
2. Minimize any soil, spoil stockpile and/or laydown areas adjacent to environmentally sensitive areas. If stockpiles or laydown areas are needed, provide reinforced, double-row silt fence. Consult with an environmental/EHS professional for guidance and compliance assistance around such areas.
3. Construction equipment should be appropriate for the intended purpose – use of composite mats and low ground pressure tracks/tires should be used to minimize any adverse wetland impacts or to minimize soil disturbance. Heavy equipment should not be used in environmentally sensitive areas.
4. Any wetland activity should include the use of composite mats for access or crossings (riprap, soil, gravel or other such materials should not be used). No logs or cleared vegetation should be used for matting and/or temporary bridging.
5. Any stream crossings should include the use of temporary bridges (riprap, soil, gravel or other such materials should not be used).
6. A minimum 10-foot vegetative buffer zone on both sides of streams should be maintained such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with lines is removed. Consider hand-clearing woody vegetation immediately adjacent to environmentally sensitive areas. Check with the field environmental/EHS professional for any additional regulatory buffers in your project area.
7. Any streambed or streambank disturbance should be minimized and any rutting or similar impacts should be returned to pre-project contours and topography immediately after work is complete.
8. If conditions warrant, protective measures such as silt fences, wattles, straw bales or other appropriate erosion control measures should be utilized to protect sensitive environmental areas.
9. Felled trees in environmentally sensitive areas should be removed by chain or cable. If stumps are to be removed, do so only by grinding in upland areas, outside of wetlands or other environmentally sensitive areas.

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10. Installation of aerial infrastructure should be set back at least 10 feet from a stream, where practical.
11. Transformers or other equipment that has potential for adverse environmental impacts due to potential leaks or spills should be located a minimum of 125 feet away from environmentally sensitive areas.
12. Immediately repair and report any erosion control measure failures, deficiencies and/or concerns to Environmental Services.

Directional Drills/Borings

1. Pipeline/utility line construction through jurisdictional waters and wetlands will be accomplished utilizing directional drilling/boring methods to the maximum extent practicable.
2. When directional boring or horizontal directional drilling (HDD) under surface waters or wetlands, personnel shall closely monitor the project for hydraulic fracturing ("fracking") or releases along the length of the bore.
3. Any discharge or release of hydraulic materials or sediments into surface waters or wetlands will need to be reported to the appropriate Army Corps of Engineers Regulatory Field Office within 48 hours. Contact the field environmental/EHS professional to report a release as soon as possible.
4. Drilling entry and exit points shall be managed to avoid any significant buildup of sediments or other materials that could impact the environment. Silt fences, wattles, hay bales, liners or other such devices shall be installed at these locations to ensure no releases to environmentally sensitive areas occur.
5. Entry/exit points should be located a minimum of 25 feet away from streams, wetlands or other sensitive environmental areas. For directional boring or HDD under surface waters or wetlands, the line should be at least 5 feet below the streambed.

Project Closeout/Maintenance

1. Remove erosion control measures after project closeout conditions are met to ensure diffuse flow of stormwater through the project areas.
2. Take care to avoid any rutting or fill placement in wetlands. Fill or debris should be removed such that revegetation and diffuse flow of stormwater is possible. Mulched material should not be placed in streams or wetland areas.
3. Consult with the field environmental/EHS professional to ensure all permit required activities are completed and the permit is closed, as necessary.

Maintenance Tasks Located Over or Near Water

1. Conduct inspections of equipment, components, secondary containments, spill catchments and surrounding areas for any fluid leaks before and after conducting maintenance.
2. Perform weekly inspections of non-oil filled electrical equipment, while it is running, to ensure that there are no leaks while oil and fluid are moving. Report all leaks and equipment deficiencies to your supervisor and write a work order to complete repairs, as necessary.
3. Any non-oil filled electrical equipment found to have leaks or improper maintenance should be taken out of service immediately, repaired and re-inspected before being put back into service.
4. Properly maintain all equipment per business unit standards or manufacturer instructions. Ensure preventive and corrective maintenance activities are logged or recorded in an approved work management system such as Maximo or Passport.
5. Properly store and handle oils, lubricants and other fluids. Follow all Environmental Health and Safety requirements for oil and chemical storage, such as secondary containment and maintaining and storing material 125 feet outside of the boundary of concern, whenever possible.
6. Obtain the SDS for fluids in the equipment being serviced, and become familiar with associated hazards.
7. If possible, conduct all non-oil filled electrical equipment maintenance in a single location that is far from storm drains and greater than 125 feet from waterways. This may require moving the equipment to a new location that is better suited for spill containment.
8. Conduct major maintenance such as disassembly in a location that is at least 20 feet from storm drains, at least 125 feet from waterways and suitable for proper spill containment.
9. Use drip pans, catchments, plastic coverings, booms and/or drop cloths to catch any potential drips and spills when equipment is being serviced. If equipment is not moved before conducting maintenance and the work is conducted within 125 feet of a waterway, cover any nearby openings to waterways, such as grates or intakes, with plastic, and place oil absorbent booms around grates and in possible paths of flow to bodies of water in case of spills.
10. Make sure that spill cleanup kits are well-stocked, on hand and readily available when performing maintenance.

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11. If a spill occurs, be prepared to respond quickly. Immediately notify your supervisor and the field environmental/EHS professional and, if safe, take steps to prevent spill from spreading or reaching water bodies.
12. Contact your supervisor or the field environmental/EHS professional for any site-specific requirements.

Migratory Birds

1. Over 1,000 species of birds are protected by federal law (including very common species like robins, crows and vultures). This law makes it illegal to injure, kill or capture any protected bird, possess any feather or part of a protected bird, or destroy an active nest.
2. Duke Energy operates 24-hour Migratory Bird hotlines to assist employees and contractors with bird-related incidents that occur during your daily work activities. Hotline numbers are below:

Carolinas: 800.573.3853	Florida: 727.386.3084	Wind: 704.430.7946
Midwest: 317.430.4497	Solar: 704.657.5775	

3. When planning to conduct an outdoor work activity or project, ask the following questions:
 - a. Are there birds or nesting birds in the project area?
 - b. Are there large birds or a large bird nest in the project area?
 - c. Will this action affect important bird habitat (nesting, foraging, hunting, congregating and overwintering areas)?
 - d. Will this action take place adjacent to a river, lake or other natural feature where bald or golden eagles are reasonably expected to be present?
 - e. Could this action/work unintentionally injure or kill any birds?
 - f. Do we need a bird protection plan or bird permit?
4. If you answered "Yes" to any of these questions, call the Duke Energy Migratory Bird Hotline for guidance.
5. Notify your supervisor or the field environmental/EHS professional and call the appropriate Duke Energy Migratory Bird Hotline if you find a dead or injured bird on Duke Energy property or rights of way.
6. Notify your supervisor or an environmental/EHS professional and call the appropriate Duke Energy Migratory Bird Hotline if a bird nest with eggs or chicks or an empty nest is in danger of being disturbed. Do not proceed with

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the work until advised to do so by the Duke Energy Migratory Bird Hotline or the environmental/EHS professional.

7. Notify your supervisor or an environmental/EHS professional and call the appropriate Duke Energy Migratory Bird Hotline if a bird is trapped inside a Duke Energy facility.
8. If you suspect you have come into contact with a dead or injured bald or golden eagle, or a large nest near work activities (which may be a bald or golden eagle nest), stop work immediately. Notify your supervisor or an environmental/EHS professional and call the appropriate Duke Energy Migratory Bird Hotline.

Operating and Maintaining Mobile Equipment

1. Immediately inspect equipment when it arrives on-site for any fluid leaks or maintenance issues.
2. Inspect equipment daily, before and after each use. Be sure to log all inspections per business unit procedures. Pay particular attention to proper installation of hoses, seals, fittings, filters, etc.
3. Any equipment found to have leaks or improper maintenance must be taken out of service immediately, repaired and re-inspected prior to placing back into service.
4. Properly maintain all vehicles and heavy equipment. Ensure preventive and corrective maintenance activities for equipment not managed by Fleet Services are logged or recorded in an approved work management system per business unit procedures.
5. As possible, routinely inspect all fuel, oil or fluid-containing fittings, hoses and seals during machinery operation to detect leaks. Note: Over-tightened hoses or using incompatible fittings/fluids can cause leaks.
6. Ensure proper storage and handling of fuel, oils, lubricants and other fluids such as antifreeze. Keep in mind the appropriate Environmental, Health and Safety requirements for fuel and chemical storage such as secondary containment and container labeling.
7. If possible, conduct all vehicle/equipment maintenance and refueling at one location, away from storm drains, and greater than 125 feet from waterways.
8. Perform major maintenance, repair jobs and vehicle/equipment washing off-site.
- ⊕ 9. Use drip pans, catchments, plastic or drop cloths to catch any potential drips and spills where there is a reasonable potential for a spill or release to reach a storm drain or surface waters.

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10. Perform a weekly inspection of parked equipment to check for leaks, spill containment installation deficiencies or environmental concerns. Keep a record of the most recent inspection at or near the home base of the equipment to allow for supervisor review of results and actions taken for problems found.
11. Conduct a pre-use inspection before operating equipment. This includes checking for hydraulic fluid gathered on the ground barrier, fluid around fittings and fluid on the hydraulic cylinder.
12. Watch out for any fluid leaks that develop during operation, regardless of how minor.
13. Recognize hydraulically supported equipment "drifting" during operation (i.e., if operator must continually fight to keep the load raised on an excavator) as a potential hydraulic fluid leak. Even if no external leaks are apparent, drifting is a sign of internal leaking.
14. Maintain the proper level in all hydraulic reservoirs. Hydraulic systems operated with a low fluid level will run hot, which will shorten the life and/or damage system components such as seals and hoses.
15. Carry portable spill cleanup kits in trucks or heavy equipment to lessen the amount of time needed to respond in case of a problem.
16. If a spill occurs, be prepared to respond quickly. Promptly notify the appropriate personnel and take steps to prevent the spill from spreading or reaching water bodies in the United States.
17. Contact the field environmental/EHS professional for any site-specific equipment requirements.

Open-Burning

1. Open-burning activities (the burning of any materials where contaminants resulting from combustion are emitted directly into the air, without passing through a stack or chimney from an enclosed chamber) may occur as a result of land-clearing activities, conducting fire-fighting training or right-of-way vegetation management.
2. Open-burning activities are generally discouraged if other cost-effective and regulatory-approved options are available.
3. Consider controlled options for open burning in lieu of placing material in an open pile. Consider curtain burners with clean fuel for startup. Contact an environmental/EHS professional to discuss potential permitting requirements related to the use of controlled options.

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4. Restrictions on materials combusted, distance from residences and structures, time of day and burning during periods of drought are specified in state and local regulations. Any type of open burning can also trigger the need for advance permits or approvals from county, local or municipal officials, including the local/state fire marshal, state Division of Forestry and USDA Forest Service (fire towers) that may have jurisdiction. Since these local approvals vary considerably, contact an environmental/EHS professional for support.
5. Prior to an open-burning event, ensure a communication plan has been developed and executed. This includes communications with the appropriate environmental/EHS professionals, and Corporate Communications and Community Relations organizations. Courtesy notifications may be made to regulatory agencies by the designated environmental/EHS professional, even if they are not a regulatory requirement.

Polychlorinated Biphenyl (PCB) Management

Equipment and certain manufactured products that contain ≥ 50 parts per million (ppm) PCBs or materials that have been contaminated with PCBs are regulated by the Environmental Protection Agency under the Toxic Substances Control Act (TSCA). Items with PCBs content ≥ 500 ppm are more stringently regulated.

The following list includes equipment, manufactured products and materials that may be regulated under the TSCA:

- Equipment – transformers, bushings, capacitors, ballasts, natural gas pipe, breakers, switches, fluorescent lamp ballasts and paper-insulated lead-covered cable
 - Manufactured products – paints, caulks, mastics and wire coatings
 - Materials – oil, soil, water, natural gas pipeline liquids (condensate), truck beds, plastics, paper, wood, cardboard and debris
1. PCB spills ≥ 50 ppm and the collection of PCB gas condensate should be reported immediately to your supervisor and an environmental/EHS professional to ensure cleanup protocols and reporting regulatory requirements are met.
 2. All PCB shipments, cleanup records and analysis should be completed by the field environmental /EHS professional and compiled for a site's PCB Annual Document Log/Records.

NOTE: A Hazardous Waste Manifest is required for shipments of PCB Articles and PCB Article Containers to an approved PCB-disposal facility.

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3. PCB materials can be temporarily stored at a location, such as an operations center, for 30 days prior to being shipped to a long-term PCB storage warehouse location (Plainfield, Brecon, Toddville, Garner or Wildwood).
4. Contact your supervisor or the field environmental/EHS professional if you have questions or concerns regarding PCBs or PCB-containing equipment.

Pesticide and Herbicide Application

1. Use only "general use" pesticides and herbicides that are approved chemicals in eTRAC. General use pesticides are available for purchase and use by the general public. "Restricted use" pesticides (RUPs) are generally prohibited for use by Duke Energy. RUPs have the potential to cause unreasonable adverse effects to the environment and injury to applicators.
2. Ensure applications are performed by or under the supervision of a licensed applicator.
3. Follow the personal protective equipment (PPE) instructions on the product label when handling, mixing or applying pesticides or herbicides. Unless otherwise specified on the product label, the minimum PPE includes a long-sleeved shirt, long pants, eye protection (safety glasses or face shield) and impermeable gloves.
4. Personnel can perform incidental applications of general use wasp, hornet, fire ant and other small insect pesticides (including tick, insect and dog repellents) for immediate personal protection as long as all label instructions are read and followed.
5. Maintain pesticide application records for at least three years from the date of application. Generally, records are not required for the following applications:
 - a. Janitorial use of general use disinfectants
 - b. Personal use of tick, insect and dog repellents
 - c. Incidental use of the following household-type products:
 - i. General use rodenticides
 - ii. Wasp and hornet aerosol killers, general use fire ant killers or insect/mosquito repellents for small localized spot applications
6. Keep records for general use applications of microbiocides, molluscicides, algaecides and other antimicrobial products for water, wastewater or cooling tower treatment per the requirements of water and wastewater certifications.
7. Prepare and review a Pesticide Discharge Management Plan for applications performed under a Pesticide Discharge Permit.
8. Ensure all aerial herbicide application projects follow the Transmission Vegetation Management Aerial Herbicide Application Operational Procedures.

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9. Follow best management practices when applying all terrestrial and aquatic vegetation herbicides or insect pesticides.
10. Immediately notify your supervisor or the field environmental/EHS professional if any chemical spills occur.

Refrigerants

Chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) are widely used as refrigerants in industrial refrigeration, commercial and comfort air conditioning, motor vehicle air conditioners (MVAC) and small refrigeration appliances. They are also used as a dielectric gas in some load center transformers. Halon is used as a fire suppressant in waterless fire protection systems for computer, telecommunication and data/document storage facilities and hand-held fire extinguishers.

1. Avoid knowingly venting any refrigerant substance, including approved substitutes, into the atmosphere during testing, maintenance, servicing, repairing or disposal of an appliance or MVAC, except as allowed by the regulations. Minor releases of refrigerant that result from purging hoses or from connecting or disconnecting hoses to charge or service appliances or MVAC are not considered violations of the prohibition on venting.
2. All Duke Energy and contracted technicians servicing or disposing of refrigerant-containing appliances or MVAC must have Environmental Protection Agency (EPA) certification and training for the appliances or MVAC they service. Recycling and recovery equipment certified by the EPA must be used.
 - a. Documentation of the EPA certification(s) must be maintained with the field environmental/EHS professional or with project documents.
 - b. Ensure that the technician certification level aligns with the work to be performed.
 - c. Only certified technicians may purchase refrigerant or halon materials.
3. Follow prescribed service practices from the manufacturer to minimize the release and maximize the recycling of refrigerants and halon during appliance or MVAC servicing, repair, testing, maintenance and disposal.
4. Provide documentation to the field environmental/EHS professional sufficient to track and document annualized leak rate, timely repairs, retrofits and notifications for stationary refrigeration equipment with a full charge of more than 50 pounds, as required by law. Some documentation is also required for appliances containing less than 50 pounds of refrigerant and for MVAC activities.

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5. Follow manufacturer or approved work practices to ensure refrigerants and halon are recovered from appliances or MVAC, as required by regulations. All refrigerant must be recovered prior to disposal.
6. Ensure that recovered refrigerant materials are properly disposed. Contact your supervisor or the field environmental/EHS professional with any questions regarding refrigerant management.

Reciprocating Internal Combustion Engines (RICE)

1. Evaluate the need for an air permit for any reciprocating internal combustion engine (RICE) equipment brought on-site. Equipment may include but is not limited to the following: pumps, generators, light stands and welders.
2. Provide secondary containment for each piece of equipment while on-site to prevent discharge of unanticipated leaks/spills to the environment.
Containment must provide adequate capacity and be in good operating condition.
3. Maintain records (e.g., rental agreements, logbooks) for any portable RICE equipment brought on-site to demonstrate the engine is not stationary.
4. Ensure the field environmental/EHS professional is made aware of any engine rented and/or owned by Duke Energy. Equipment meeting the definition of stationary RICE source may require an air permit modification prior to operation.
 - a. Ensure that any equipment purchased meets the required regulatory emissions standards for the intended use.
 - b. Maintain a copy of the manufacturer's emissions certification on-site.
5. Prior to operation of the equipment, ensure that required maintenance activities have been entered into an approved Work Management System for stationary equipment that is rented or owned by Duke Energy.
 - a. Only use ultra-low-sulfur diesel (ULSD) fuel in the engine.
 - b. Use a logbook to track run time and the reason for the run event. A non-resettable hour meter must be installed on the engine and used to record hours of operation.
 - c. Ensure maintenance, including changing hoses, belts, oil and oil filters, is completed per the manufacturer's guidelines or at the default thresholds provided by EPA. Have the records readily available on-site.

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• Spill Prevention Control & Countermeasure (SPCC) Plans and Requirements

1. Develop and implement a Spill Prevention Control & Countermeasure (SPCC) plan for any facility that has a total above-ground oil storage capacity of 1,320 gallons or more (excluding containers of less than 55 gallons) or total below-ground oil storage capacity of 42,000 gallons, which due to its location could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines.
2. Contractors with oil containers equal to or greater than 55 gallons that have a combined total oil storage capacity of 1,320 gallons or more, and due to its location could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States or adjoining shorelines must prepare and comply with their own SPCC plan that meets the requirements set forth in 40 CFR 112. The SPCC plan and any associated records shall be made available to Duke Energy for review upon request.
3. Contact the field environmental/EHS professional for assistance with SPCC plans and their requirements.
4. Document all inspections and containment draining activities as described in the facility SPCC plan. Inspection records must include the name of the inspector and date of the inspection.
5. Retain inspection records required by the SPCC plan at the facility (or a designated location for unmanned facilities) for a minimum of three years.
6. SPCC plans must be amended when any material changes (i.e., adding/removing oil containers or piping systems, altering secondary containment or drainage, modifying operation or maintenance procedures, etc.) occur at the facility. Amendments must be made within six months of the change.
7. Ensure SPCC plans are reviewed by the assigned professional engineer and/or subject matter expert at least once every five years. Tier I SPCC plans can be reviewed by the field environmental/EHS professional. Any administrative updates such as changes in facility management or phone numbers should be made immediately.
8. Notify the field environmental/EHS professional prior to adding or removing any oil storage containers (excluding containers of less than 55 gallons).
9. Ensure procedures are posted at designated loading/unloading locations per the facility SPCC plan. Perform the loading and unloading of fuel- and oil-containing products in accordance with posted procedures at the unloading

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area with facility personnel in constant attendance. It is important that tank level be evaluated before, during and after product off-loading to prevent tank overflow (see also Oil and Chemical Containment Systems handbook chapter work standard for more information).

10. Train all personnel involved in the operation and/or maintenance of oil storage containers or oil-filled equipment as described in the facility SPCC plan. All personnel involved in the operation and/or maintenance of oil storage containers or oil-filled equipment shall also receive an annual discharge prevention briefing.
11. Train contractors to properly recognize and respond to a spill and be able to promptly notify facility personnel.
12. For sites having an SPCC plan, containment for oil storage containers (drums, totes, tanks, portable and fixed compressors, portable and fixed generators, portable light banks, etc.) greater than 55 gallons should be sized to contain the entire capacity of the largest container and sufficient freeboard for precipitation. The containers and containment should be inspected/checked periodically to ensure there are no issues and the containment is empty of rainwater as described in the facility SPCC plan.

Note: General containment may be either active or passive in design.

Active measures are those that require deployment or a specific action and could be deployed either before an activity involving the handling of oil starts (such as covering drains or putting drip pans down while refueling) or in reaction to a discharge (putting down sorbent material). The active measures must be implemented in time to prevent the spilled oil from reaching surface waters. Passive measures include dikes, berms, retaining walls or other barriers, sumps and collection systems, spill diversion ponds or retention ponds.

13. General containment should be provided for oil-filled operational equipment that is part of an SPCC plan and needs to only address the typical failure mode and the most likely quantity of oil that would be discharged.
14. For sites having an SPCC plan, inspections must be performed and documented as specified in the plan for all listed oil sources, secondary containments, loading/unloading area and spill response equipment.
15. Inspect containment structures subject to periodic integrity testing per the SPCC plan (unless it has been determined that there is no risk of impact to navigable waters if the container is compromised).
16. General containment (see note above) should be provided for oil storage containers less than 55 gallons in volume located at sites having an SPCC plan. The containment strategy utilized should be inspected/checked

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periodically to ensure there are no issues but there is no requirement to document the inspection.

17. Protect containers, above-ground piping and containment structures from potential vehicular traffic and mobile equipment impacts.
18. Maintain records of oil spill events, inspection reports and training records as required by the SPCC plan. Contact the field environmental/EHS professional for assistance with documentation requirements.
19. For sites and/or contractors not meeting the SPCC threshold of 1,320 gallons and therefore not having an SPCC plan, general containment shall (see note above) be provided for all oil storage containers regardless of volume. The containers and/or containment strategy utilized should be inspected/checked periodically to ensure there are no issues but there is no requirement to document the inspection.
20. Secondary containment for motive power containers (e.g., self-propelled crane, self-propelled heavy vehicles, cherry picker, forklift) is not regulated under SPCC. For this type of container/equipment you should assess the risk of an oil spill occurring and provide general spill prevention methods to prevent an oil discharge (see the Operating and Maintaining Mobile Equipment section for more information).

Spills

1. Prior to working with oils and chemicals discuss:
 - a. Your work and the risk of spills associated with your work
 - b. What could go wrong or lessons learned from past events
 - c. What barriers you have put in place to eliminate or reduce the risk of a spill
 - d. Distance or flow paths to water
 - e. The location and access to an appropriate spill kit
 - f. The location of the SPCC plan for the facility, if applicable
2. Generally, perform equipment checks on mobile equipment as follows:
 - a. Inspect equipment at the beginning of a shift, at the end of a shift and when the work scope changes.
 - b. Inspect hydraulic equipment before use and have defective equipment repaired BEFORE it fails.
 - c. Make every effort to park and/or stage equipment more than 125 feet away from water bodies.

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- d. Take precautions to prevent leaks from getting to the water/drains when working near water or yard drains.
 - e. Use containment for off-road or mobile equipment if possible.
 3. Equipment refueling should take place more than 125 feet from water bodies whenever possible. When not possible, extra precautions shall be taken to avoid spills.
 4. Refueling must be attended through the entire refueling operation.
 5. Proper precautions must be taken to prevent the spilling of any fuel.
 - a. Place a bucket/containment under refueling nozzle.
 - b. Have absorbent pads, socks, etc. available.
 - c. Place containment under mobile equipment and refueling truck as applicable.
 6. Dike or contain leaking oil-filled equipment. Properly bag or wrap oil-filled equipment for transport. It may be necessary to pump the oil from the leaking unit in some cases.
 7. Provide containment or construct temporary berms under portable oil-filled equipment, such as compressors, when used outside.
 8. In the event of a spill, your responsibilities are to first protect yourself and then SWIM:
 - a. S – Secure the area.
 - b. W – Warn others to leave the area.
 - c. I – Inform: Contact Environmental Services IMMEDIATELY. Time is of the essence when reporting to Environmental. Do not wait to gather information. Immediately notify your field environmental/EHS professional.
 - d. M – Monitor the area, keeping others away until qualified help arrives.

★ **Oil Releases from Electrical Equipment (Transformers)**

1. If an oil spill from electrical equipment is suspected or detected, first inspect the equipment for PCB content information:
 - a. Use appropriate PPE (steel/composite shoes, reflective vest, eye and hand protection, coveralls, shoe covers, etc.) when approaching and managing an oil spill from electrical equipment.
 - b. Inspect the unit for a Blue or Green Dot, Blue Non-PCB Label and/or review the unit's nameplate to determine the PCB content of the unit.
 - c. If an oil spill has occurred from a transformer whose PCB status cannot be determined by nameplate, Blue Dot or Label, run a Clor-N-Oil PCB field test or assume the unit is PCB-contaminated.

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2. For all leaking PCB transformers or transformers with unknown PCB content:
 - a. Contain or seal the leak.
 - Control leakage to the greatest extent possible.
 - Install knockout seals when bushings are the source of the leak.
 - Use plastic steel putty such as Pig Putty or Aqua Seal pads.
 - b. Bag the unit or pump the oil out of the transformer before bagging the unit, if necessary.
 - Prevent bag damage by removing wire and sharp objects, including porcelain arrestors.
 - c. Wrap absorbent pads around the base of the equipment.
 - d. Tag and fasten the transformer bag.
 - Attach a yellow tag to PCB transformers or transformers with unknown PCB content and record on the back of the yellow tag the "Removal from Service Date."
 - Tape the top of transformer bag.
 - Tape the corners of transformer bag against side of equipment.
 - Minimize pooling in corners of transformer bag.
 - e. Transport the bagged transformer to the Operations Center and palletize the unit.

Spill Reporting

1. In order to ensure the protection of human health and the environment, federal and state laws require that certain types of spills and unpermitted releases be reported to the proper regulatory agencies as soon as possible following identification.
2. Immediately notify your supervisor and the field environmental/EHS professional when a spill or unpermitted release is discovered. In some cases, reporting to an outside agency is required within 15 minutes. There are many types of events that may require reporting. The following are some examples:
 - An oil spill, in any quantity, to navigable water (any oil sheen counts!)
 - Any oil spilled to land within 100 feet of a water body (in North Carolina; other states may vary)
 - A chemical release to air, land or water
 - A release of untreated domestic wastewater
 - An oil spill to soil greater than 25 gallons
 - A coal ash release to the environment greater than 8,000 pounds in a 24-hour period

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- Any fire involving a PCB transformer
 - An unpermitted discharge of industrial wastewater to surface water
 - An unpermitted discharge of pollutants to the air
 - Any spill from an underground storage tank
3. Follow the facility event reporting procedure. Call the control room to report an event at a generating station. Refer to the SPCC plan for facility-specific procedures if available.
 4. If you are unable to reach the field environmental/EHS professional, contact one of the Duke Energy spill reporting hotlines at:

Generation – Regional Environmental SME or Generation Spill Coordinator Hotline: 800.510.7439

Transmission & Distribution – Regional Spill Coordinator Hotline Carolinas and Midwest: 800.527.3853 Florida: 866.769.1266
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Have the following information available when making the notification:

- Location of the spill/release – facility name, address and location on-site.
 - Date and time discovered.
 - Your name and phone number.
 - What has been spilled? Chemical name, process released from, etc.
 - Estimate of the volume released into the environment.
 - To what environmental media has the material been released to – land, water, air?
 - Has the spill reached a drain or waterway? Does it have the potential to reach a drain or waterway?
 - What health risks exist?
 - What actions, if any, have been taken?
5. Perform spill response activities if you are trained and it is safe to do so. Safely reduce the duration/extent of the release and any environmental impact.

Spill Cleanup

1. Ensure the event has been reported prior to beginning cleanup.
2. Do not attempt spill cleanup if you have not been trained in HAZMAT cleanup procedures.

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3. Reference the Facility Response Plan (FRP) if the facility is an FRP regulated site or the SPCC plan if it is an SPCC site.
4. Confine the spill as close as possible to the source of the release. Consider type of spill, location, weather conditions and quantity to determine the best method for spill containment.
5. Identify source of spill and determine the associated hazards.
6. Eliminate all ignition sources if flammable or combustible materials are spilled and the danger of explosion exists.
7. Use experience and judgment in choosing the best approach and remedial actions. The most generally applicable rule: Confine the spill as quickly as possible to minimize environmental impact.
8. Use the tools, equipment and materials that are readily on hand at the time that a response is necessary until there is time to bring additional, perhaps more effective, material to the site.
9. Depending on the size of the spill, containment and/or cleanup strategies needed, you may need to call an Oil Spill Response Organization (OSRO) or facility (hazardous material) HAZMAT team for assistance.
10. Response to an incidental spill does not require the utilization of a HAZMAT team but requires persons to be trained on the chemicals they are using.
11. Contact the facility environmental/EHS professional for assistance coordinating spill waste disposal.

Storage Tanks/Underground Storage Tanks

1. Ensure that the contents of the storage tank are compatible with the system prior to filling.
2. Always check that available volume in the tank is greater than the volume of product to be transferred to the tank.
3. Ensure releases due to spilling or overfilling do not occur by monitoring product transfer constantly (NO EXCEPTIONS).
4. Immediately contact your supervisor and the field environmental/EHS professional upon discovering a release, spill or overfill. If possible, stop and/or contain the release.
5. Contact the field environmental/EHS professional prior to installing an underground storage tank (UST), taking a UST system out of service or placing a UST in temporary closure status. Governing agencies must be notified prior to operation or a change in tank status.

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6. Contact the field environmental/EHS professional prior to installing, removing or taking out of service any above-ground storage tanks (AST). Some states or local agencies have rules requiring permits or registrations for ASTs.
7. Always consult with the field environmental/EHS professional before installing or repairing UST components. Repairs may trigger new compliance requirements that could be onerous or unworkable at your location.
8. Prevent releases due to corrosion by operating and maintaining corrosion protection systems for the metal components of the tank and piping that routinely contain regulated substances and are in contact with the ground.
9. Review printout from the tank monitoring system daily or as required.
10. Records of a passed leak test result for each tank must be collected and filed monthly.
11. Monitor USTs for releases using an approved release detection method once each calendar month, not exceeding 30 days. For exceptions, consult the field environmental/EHS professional.
12. Train personnel on Class A, Class B and Class C USTs according to state-specific training requirements.
13. Maintain a current copy of the UST operating permit, and post it in an area that is visible to the fuel delivery vendor.
14. Keep a copy of fuel and product delivery receipts on file for at least one year.
15. Maintain a sufficient amount of product in used oil tanks (one-third capacity) to ensure a passed leak test is achievable for each calendar month. Do not allow Fleet Services or other vendors to pump tanks out completely as it will take time to allow the tank to rise to the level where the tank monitoring system can give an accurate passed result.
16. Ensure preventive maintenance and inspection requirements for the storage tank are correctly identified and tracked to completion in a work management system or compliance tracking system.

Stormwater

Industrial Stormwater

1. Industrial stormwater permits are often required to effectively manage runoff generated by rain and snowmelt events at a facility. Apply for and maintain a valid stormwater permit at all regulated locations that discharge stormwater associated with industrial activity into the waters of the state and/or United States.

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2. Maintain a Stormwater Pollution Prevention Plan, or equivalent, as required by the issued stormwater permit.
3. Contact the facility environmental/EHS professional for industrial stormwater permitting and compliance assistance.

Construction Stormwater

1. Obtain approval for temporary construction/land-disturbance projects under general state National Pollutant Discharge Elimination System permit programs.
2. Create a Stormwater Pollution Prevention Plan or Erosion Control Plan (ECP) as required by the general permit. The amount of area disturbance, which triggers these permits, varies by the appropriate jurisdictional authority.
3. Contact the facility environmental/EHS professional for construction stormwater permitting and compliance assistance.

Stormwater Permit Requirements

1. Use best management practices at the project site to minimize the mobilization of sediments using items such as silt fence, waddles or other approved erosion control devices.
2. Some jurisdictions require long-term Operational and Maintenance Plans (O&M Plans) to be developed and followed after the construction phase of the project. These O&M Plans may require routine documented inspections of the permanent best management practices, as well as annual reports and other documentation showing compliance of maintenance requirements and verification of site conditions of the permanent practice.
3. Document any inspections and monitoring that are mandated by the stormwater permit.
4. Maintain all documentation on-site per the record retention guidelines specified by the stormwater permit and corporate requirements.

Threatened and Endangered Animals, Plants and Their Habitats

1. There are over 300 species of threatened or endangered animal and plant species in Duke Energy regions that are protected by federal law.
2. Harming, harassing, capturing or collecting a threatened or endangered animal is illegal.
3. Collecting or harming threatened or endangered plants on federal land is illegal.

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4. Altering habitat or degrading habitat to an extent that it impacts a threatened or endangered species in any way, creates stress on a threatened or endangered species, or directly or indirectly causes death or injures a threatened or endangered species is illegal.
5. When planning an outdoor work activity or project that causes ground or habitat disturbances, ask the following questions.
 - a. Are there endangered or threatened animals or plants in the project area?
 - b. Could this action affect protected or important habitat?
 - c. Could this action unintentionally injure or kill any animals or plants?
 - d. Are there state and local laws to protect animals, plants and habitat?
 - e. Do we need a protection plan or permit?
6. If you answer "Yes" or "I don't know" to any of these questions, contact your supervisor and an environmental professional for guidance prior to conducting the work.

Used Oil

1. Do NOT mix hazardous waste or other materials such as solvents, antifreeze or unknown liquids with used oil.
2. Only store used oil in Department of Transportation-approved storage containers.
3. Storage containers must be closed except for when adding used oil.
4. Containers holding used oil shall be clearly labeled or marked with the words "USED OIL."
5. Store containers within secondary containment in a predetermined used oil storage location. Be mindful if the site has a Spill Prevention and Countermeasure Control (SPCC) plan, and adhere to all requirements.
6. Know the location of the closest spill kit in the event of a spill.
7. Immediately report any used oil spills to your supervisor and the field environmental/EHS professional, and take immediate action to minimize the extent of the spill.
8. Transformer oil must have a polychlorinated biphenyls (PCBs) determination made by an environmental professional.
9. Hot-drained used oil filters are considered nonhazardous waste if they are recycled as scrap metal. Except in Florida, they can be placed in the regular trash if they have been properly characterized as nonhazardous based

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on generator's knowledge or analytical data and that characterization is documented in the facility files.

10. Used oil from all Duke Energy facilities can only be sent to a company-approved off-site used oil recycling or disposal vendor.
11. Do not transport more than 55 gallons of used oil at one time unless the vehicle is registered as a "Used Oil Transporter."
12. Contact the field environmental/EHS professional for any state-specific requirements.

Vehicle Washing/Washout

Vehicle Washing Permits

1. Duke Energy facilities discharging vehicle wash water that drains off-site either by direct discharge or through a storm drain must be covered under an industrial wastewater discharge permit. The purpose is to protect against direct or indirect discharges of pollutants to surface waters. Obtain a vehicle wash water discharge permit for any Duke Energy facility that washes vehicles on-site. An individual permit may be required for each company washing vehicles at a Duke Energy facility.
2. Complete an Environmental Requirements Review Checklist prior to modifying an existing wash system or installing a new system.
3. Contact the field environmental/EHS professional for permitting and compliance assistance related to vehicle washing.

General Guidelines for On-Site Vehicle Washing

1. Release vehicle wash water generated during vehicle washing to a permitted waste treatment system.
2. Contact your supervisor or the field environmental/EHS professional before using detergents if you are uncertain of a facility's permitting requirements.
3. Collected sediment from the vehicle washing system must be evaluated by the field environmental/EHS professional to determine methods for proper off-site disposal.
4. Duke Energy vehicles may be washed off-site at a commercial vehicle washing facility.
5. Duke Energy facilities may contract vehicle washing to vendors who provide on-site, turnkey vehicle washing (i.e., taking vehicle wash water with them to be disposed of appropriately).

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Waste Management and Disposal

General Requirements

1. Personnel involved in the management or handling of Resource Conservation and Recovery Act hazardous waste shall be appropriately trained and the records for such personnel shall be maintained on-site.
2. Hazardous waste will be collected in properly labeled containers.
3. All facilities where the following materials are disposed must be Duke Energy-approved:
 - a. Polychlorinated biphenyl waste
 - b. Hazardous waste
 - c. Parts washer fluids
 - d. Recycled drums
 - e. Universal waste
 - f. Electronic waste
 - g. Used oil
 - h. Solvent rags
 - i. Coal combustion residuals
 - j. Manufactured gas plant waste
 - k. Petroleum contaminated materials
 - l. Nonhazardous industrial process waste
 - m. Scrap metal
 - n. Antifreeze
 - o. Selective catalytic reduction catalysts
 - p. Scrubber waste
 - q. Treated wood
4. Minimize the generation of waste by limiting the amount of materials used on a job. Do not co-mingle wastes; this may generate additional hazardous waste.
5. Any discarded or unneeded solid, liquid or gas that presents a danger to people or the environment should be considered a hazardous waste.
6. Report all spills to your supervisor or the field environmental/EHS professional and take immediate action to minimize the extent of the spill.

Hazardous Waste Satellite Accumulation Areas

1. Hazardous waste can be collected indefinitely in a satellite area as long as the waste will continue to be generated and does not exceed 55 gallons.
2. The satellite accumulation area must be located at or near the point of the waste generation.
3. Containers must be closed unless adding or removing waste to the container.
4. Containers must be in good condition.
5. The words "Hazardous Waste" or words identifying the waste must be clearly marked on the container.
6. Once the 55-gallon limit is reached, the generator must mark the date it was full and move the container to the hazardous waste central accumulation area within 72 hours.

Hazardous Waste Central Accumulation Areas

1. All containers in this location must be labeled with the hazardous waste label and include the date the waste was moved to this location.
2. Keep aisle spaces clear and free from obstacles. Maintain at least 2 feet of aisle space.

Nonhazardous Waste Management

1. Characterize each waste stream to determine if usage or interaction with other materials transitioned the material to a hazardous waste category.
 - a. Seek guidance from the field environmental/EHS professional on proper disposal of the following materials:

Aerosol cans	Antifreeze	Caulking	Drip water
Electronics	Empty containers	Grease	Hydrostatic test water
Mercury	Non-PCB ballasts	Oil cleanup debris	Oily rags
Photo processing waste	Rinsates	Solvent rags	Tires
Treated wood	Universal wastes	Used oil	Wastewaters

Recyclable Materials Management

1. Items that are typically recycled by Duke Energy include:
 - a. Asphalt and concrete (larger volumes of this material may be aggregated and used for beneficial purposes such as beneficial fill, etc. if approved prior to such use)

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- b. Cardboard and paper
 - c. Plastic or metal drums (recycle or recondition all drums)
 - d. Electronics such as cathode ray tubes, testing equipment, printers, copiers, computers, etc.
 - e. Lamps
 - f. Used oil
 - g. Tires
 - h. Empty aerosol cans
2. Contact the field environmental/EHS professional for information on recycling programs for your facility or jurisdiction.

Universal Waste Management

1. Universal wastes (UW) are a subset of hazardous wastes that can be managed under reduced requirements. Universal wastes include the following:
 - a. Lamps – mercury vapor lamps, fluorescent lightbulbs, neon lights, high-intensity discharge (HID) lamps, high pressure sodium (HPS) lamps and incandescent lamps
 - b. Mercury-containing equipment – thermostats and manometers
 - c. Batteries – nickel-cadmium (NiCd), lithium (LiOH, Li-ION), silver oxide and lead-gel batteries
2. Follow the basic requirements for managing UW:
 - a. Affix a Universal Waste label on a collection container.
 - Label lamps: Universal Waste – Lamps (In Florida, label containers Universal Waste – Mercury Lamps)
 - Label batteries: Universal Waste – Batteries
 - Label mercury devices: Universal Waste – Mercury-Containing Equipment (In Florida, label containers Universal Waste – Mercury Devices)
 - b. Keep the container closed, except when adding or removing waste.
 - c. Record the accumulation start date (the date when the first item is placed into the container) on the label.
 - d. Recycle universal wastes within one year of the accumulation start date.
3. UW batteries may be recycled through Call2Recycle – Rechargeable Battery Recycling Corporation

4. Broken lamps
 - a. Broken universal waste lamps and residues are to be managed as a hazardous waste. Contact the waste subject matter expert for proper collection and disposal. (Small amounts (< 5%) of unintentional breakage may be acceptable in packaged lamps.)Contact your supervisor or the field environmental/EHS professional for additional guidance in managing wastes.

o Wastewater

1. National Pollutant Discharge Elimination System (NPDES) permits are licenses to discharge pollutants from point sources to waters of the U.S. Each individual wastewater discharge to a surface water body (lake, stream, canal, ocean or wetland area) must be covered under a site-specific NPDES permit to be in compliance with the Clean Water Act.
2. An NPDES permit is granted when the permit holder agrees to comply with a certain set of conditions including:
 - Limits on pollutants that may be present in the discharge
 - Requirements to monitor these pollutants
 - Requirements to report these monitoring results
3. Any samples collected and analyzed at a permitted outfall must be reported to the appropriate regulatory agency.
4. Laboratories performing compliance analytical work MUST be certified by the appropriate agency and approved by Duke Energy.
5. NPDES permit compliance is the responsibility of ALL Duke Energy employees and contractors. Failure to comply with NPDES permit requirements can result in notice of violation (NOV) and associated penalties such as fines, criminal liability (including imprisonment) and disciplinary action.
 - a. What may be considered a permit violation?
 - Exceedance of permit limit
 - Failure to meet monitoring and/or reporting requirements (missed samples, late report submittals, missed compliance schedules)
 - Discharge of pollutants that were not permitted
 - Discharges of oil, hazardous materials or wastes
 - Exceedances of water quality standards
 - Bypassing required treatment

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- Failure to properly operate and maintain wastewater treatment equipment/systems
6. In order to meet strict reporting requirements, immediately report any exceedances or unauthorized discharges to your supervisor and the field environmental/EHS professional.

Water Use and Minimization

1. Many Duke Energy facilities have environmental permits that regulate and limit the consumptive use of water. Be aware and comply with consumptive use permits for the facility where you are working. Contact the site environmental personnel for compliance assistance with facility permits.
2. Detect and repair all water leaks in a timely manner.
3. Use dry methods for cleaning when possible (e.g., sweep paved areas instead of using water).
4. Control water hose flow with an automatic shut-off nozzle. Do not let water run when not in use.
5. Use vehicle-washing systems that reuse water when available.
6. Contact the facility environmental/EHS professional to discuss water conservation ideas or with water-use-related questions.

Well Drilling and Closure Requirements

1. Construct and maintain all groundwater monitoring wells, drinking water wells or wells that withdraw groundwater for process water, in accordance with applicable state statutory requirements, regulatory requirements or permit requirements. These requirements include:
 - a. Obtaining authorization to withdraw groundwater and to install or abandon wells
 - b. Developing and maintaining proper documentation and records
 - c. Conducting monitoring activities in accordance with applicable requirements and analytical procedures
2. Contact the facility environmental/EHS professional when well installation is planned or existing wells are being considered for modification or abandonment.
 - a. Installation and use of wells in the various states may require any, or all, of the following activities, record-generating and record-keeping requirements:
 - Groundwater withdrawal authorization via registration

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- Groundwater withdrawal authorization via permit application
 - Groundwater use permit
 - Well construction, modification, repair or abandonment authorization
 - Well completion record
 - Well construction record
 - Specific requirements for monitoring wells
 - Withdrawal reporting
3. Follow well closure requirements when abandoning/closing a well to limit the risk of surface contaminants entering the groundwater. Contact the facility environmental/EHS professional for assistance with well closure requirements.

Wildlife Management

1. The presence of wildlife can create safety hazards and distractions while working. Wildlife can also impede the progress of a project or become a general nuisance by:
 - a. Leaving droppings in work areas
 - b. Standing in or running across roadways and walkways
 - c. Nesting too close to buildings
 - d. Building dams
 - e. Becoming entrapped or entangled in equipment or buildings
2. Employees and contractors can safely coexist with small and large wildlife on-sites and rights of way by following site-specific rules and regulations and using good judgment.
3. Follow the designated speed limit on-sites.
4. Drive on designated site roads and walk on designated pedestrian walkways.
5. Do not attempt to approach or make contact with any wildlife. Do not try to feed wildlife or leave food scraps out that might attract wildlife to the area.
6. Be aware that state and local laws regulate trapping, relocating, harming and possessing wildlife.
7. Notify your supervisor or an environmental/EHS professional when the presence of wildlife in a particular location becomes a danger or nuisance to employees and contractors.
8. Pay attention to signs on-sites and rights of way that designate managed wildlife habitat and avoid these areas.
9. When planning an outdoor activity or project, ask the following questions.

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- a. Are there managed habitat areas near the project?
 - b. Will this project disturb managed habitats or come near managed habitat boundaries?
 - c. Could this action unintentionally disturb wildlife nests, burrows or dens?
 - d. Do we need a wildlife plan or wildlife permit?
10. If you answer "Yes" or "I don't know" to any of these questions, contact your supervisor and an environmental/EHS professional for guidance prior to conducting the work.

• Contractor Supplemental Requirements

Contractors are required to comply with applicable sections of the EHS Handbook and with business unit-specific supplemental requirements which are mandatory annexes to the handbook. The supplemental requirements documents are available at Duke Energy's Suppliers Resources website at duke-energy.com/partner-with-us/suppliers. Click on Environmental, Health and Safety.

List of Business Unit Supplemental Requirements

- Fossil Hydro Operations (FHO)
- Coal Combustion Products (CCP)
- Natural Gas Business Unit (NGBU)
- Transmission
- Customer Delivery
- Project Management & Construction (PMC)
- Vegetation Management
- Administrative Services (Real Estate and Telecommunications)



ATTACHMENT 9

REPORTING AND NOTIFICATION REQUIREMENTS

A. Contractor will give Company timely notification of the following within 24 hours of the event so as to allow Company to be prepared prior to the information becoming public and to take necessary actions:

- Regulatory notification (reportable event) or correspondence from any Governmental Authority (*e.g.*, NRC, OSHA, FDEP, EPA) proposing, making any determination, or assessing any proposed violation, enforcement conferences, violation, order, finding, fine, or penalty for either D&D activities or ISFSI operations
- Any event or situation, related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned (which news release shall in any event be subject to the provisions of Section 12.3 of the Agreement) or notification to other government agencies has been or will be made; such an event may include an onsite fatality or inadvertent release of radioactively contaminated materials
- Any proposed organizational changes in equity ownership of NorthStar Group Holdings or ORANO (written summary report)
- Any breach of debt covenants, default acceleration, insolvency, reorganization, bankruptcy or liquidation of NorthStar Group Holdings or ORANO

B. Quarterly Information – Face to face meeting

- Summary of items in A, above.
- ██████████ dispute summary.
- Items whereby Contractor is in contract non-compliance.
- Concerns needing management attention.
- Contractor shall present the following project information to Company
 - i. Submitted and pending regulatory submittals
 - ii. Completed and near-term schedule milestones
 - iii. Updated schedule including completed and remaining activities
- The material above shall be provided to Company at least two weeks prior to the scheduled meeting. The meeting shall be scheduled for a duration of 4 hours (other than the annual meeting, which is credited as a quarterly meeting) including ample time for a question and answer session.

C. Annual Information and activities

- Summary of items in A and B, above.
- On or before March 31 of each calendar year following the close of the proposed transaction, Contractor shall provide to Company the following disclosures and reports covering the prior calendar year (or specified 12-month period):
 - i. An assessment of Project Schedule performance and future projections with respect thereto.
 - ii. An assessment of [REDACTED] performance and future projections with respect thereto
 - iii. This annual requirement shall continue until Contractor completes the last of the ISFSI-Only Interim End-State Conditions.
- This information will be reviewed and discussed during the second-quarter meeting each calendar year in addition to the normal quarterly information. The meeting shall be scheduled for a duration of 8 hours including ample time for a question and answer session.

D. Spent fuel and GTCC waste transfer to an off-site storage facility

- If Contractor decides to transfer the spent fuel and GTCC waste away from the CR-3 Facility and the ISFSI Site, including DOE pickup, Contractor shall provide the following information in writing to Company:
 - i. The plan and schedule for the transfer
 - ii. The project risk matrix including mitigation and contingency plans
 - iii. The vendors selected to perform the work
 - iv. The transportation route selected
 - v. A summary of readiness evaluations planned and completed including canister removal, transporting to transportation vehicle, canister loading and transportation
 - vi. These items shall become part of the quarterly meeting agenda once Contractor decides to transfer the fuel and GTCC waste away from the ISFSI Site

E. Post spent fuel and GTCC waste transfer away from the ISFSI Site:

- Contractor shall provide the following information in writing to Company:
 - i. The plan and schedule for the ISFSI decommissioning
 - ii. These items will become part of the quarterly meeting agenda when applicable

NOTE: The reporting and notice requirements described in this Attachment 9 are in addition to and not in lieu of any reporting and notice requirements set forth in the Agreement or the Company EH&S Site Requirements.

ATTACHMENT 10

CONTRACTOR'S INSURANCE

1. Commencing with the performance of the Decommissioning work, and continuing until the termination of the Agreement, Contractor (and any tier subcontractors) shall maintain or cause to be maintained occurrence form insurance policies as follows:

(a) Workers' Compensation in accordance with the statutory requirements of the state in which the Work are performed and Employer's Liability Insurance of not less than \$1,000,000 each accident/employee/disease.

(b) Commercial General Liability Insurance having a limit of at least \$1,000,000 per occurrence/\$2,000,000 in the aggregate for contractual liability, personal injury, bodily injury to or death of persons, and/or loss of use or damage to property, including but not limited to products and completed operations liability (which shall continue for at least three (3) years after Completion), premises and operations liability and explosion, collapse, and underground hazard coverage.

(c) Commercial/Business Automobile Liability Insurance (including owned (if any), non-owned or hired autos) having a limit of at least \$1,000,000 each accident for bodily injury, death, property damage and contractual liability and no fellow employee exclusion.

(d) Umbrella/Excess Liability insurance with limits of at least \$25,000,000 per occurrence and follow form of the underlying Employer's, Commercial General and Auto Liability insurance, and provide at least the same scope of coverages thereunder.

(e) If engineering, consulting, design, or other professional services are to be performed under the Agreement, Professional Liability/Errors & Omissions ("E&O") Insurance (claims-made form acceptable with reporting requirements of at least three (3) years after Completion) with no resulting bodily injury or property damage exclusion in the amount of at least \$1,000,000 each claim.

(f) Environmental/Pollution Legal Liability, including coverage for both sudden/accidental and non-sudden (gradual) occurrences for bodily, property damage, environmental damage, cleanup costs and defense regulations in the minimum amount of \$5,000,000 per occurrence or higher or such limits as may be required according to applicable Laws arising out of the services to be performed under this agreement. Coverage shall be provided for both work performed on Site, as well as during the transport of materials. Coverage shall include owned and non-owned disposal site coverage, scheduling all disposal sites and temporary storage/transshipment/transfer sites to be used in providing services. If coverage is written on a claims-made basis, the retroactive date, if any, shall precede the commencement of the services under this agreement. In addition, Contractor shall maintain an extended reporting period if the policy is canceled or not renewed and not replaced by another claims-made policy with the same (or an earlier) retroactive date either during the term of the agreement or within 5 years after completion of the Agreement.

(g) If Contractor has access to personally identifiable information, including but not limited to Company's employees' or customers' social security numbers or personal financial information ("Personally Identifiable Information"), Cyber Risk/Privacy Data protection liability insurance covering claims arising from breaches of security; violation or infringement of any right privacy, breach of federal, state, or foreign security and/or privacy laws or regulations; data theft, damage, destruction, or corruption, including without limitation, unauthorized access, unauthorized use, identity theft, theft of Personally Identifiable Information, transmission of a computer virus or other type of malicious code information security or data breaches, or misappropriation of data; with a minimum limit of \$1,000,000 each occurrence and in the aggregate.

All insurance policies provided and maintained by Contractor and each subcontractor shall: (i) be underwritten by insurers which are rated A.M. Best "A- VII" or higher; (ii) specifically include Company and its directors, officers, employees, affiliates, subcontractors, and joint owners of any facilities as additional insureds, including for completed operations, with respect to Contractor's acts, omissions, services, products or operations, whether in whole or in part, excluding, however, for Worker's Compensation/Employer's Liability and E&O insurance; (iii) be endorsed to provide, where permitted by law, waiver of any rights of subrogation against Company and its directors, officers, employees, affiliates and subcontractors; (iv) provide that such policies and additional insured provisions are primary with respect to the acts, omissions, services, products or operations of Contractor or its subcontractors, whether in whole or in part, and without right of contribution from any other insurance, self-insurance or coverage available to Company and its affiliates; (v) contain standard separation of insured and severability of interest provisions except with respect to the limits of the insurer's liability; (vi) not contain any provision that limits will not stack, pyramid or be in addition to any other limits provided by the insurer; and (vii) not have any cross liability exclusion, or any similar exclusion that excludes coverage for claims brought by additional insureds under the policy against another insured under the policy. Any deductibles or retentions shall be the sole responsibility of Contractor and its subcontractors.

2. Evidence of coverages described in this Attachment 10 shall be provided via Contractor's certificate of insurance furnished to Company prior to the start of services, upon any policy replacement or renewal and upon Company's request. All insurance policies shall provide that the insurer will provide at least thirty (30) days' written notice to Contractor, who in turn shall provide at least thirty (30) days' written notice to Company prior to cancellation of any policy (or ten (10) days' notice in the case of non-payment of premium). Contractor's compliance with these provisions and the limits of insurance specified herein shall not constitute a limitation of Contractor's liability or otherwise affect Contractor's indemnification obligations pursuant to this Agreement.

Any failure to comply with all of these provisions shall permit Company to suspend all Work until compliance is achieved. The failure by Contractor to provide any or accurate certificates of insurance, or Company to insist upon any or accurate certificates of insurance, shall not be deemed a waiver of any rights of Company under this Agreement or with respect to any insurance coverage required hereunder. Company at its sole discretion may request Contractor or its subcontractors to provide a copy of any or all of its required insurance policies, including endorsements in which Company is included as an additional insured.

Contractor further acknowledges and agrees that Company shall not have any liability or obligation to reimburse Contractor for any premiums or deductibles or other payments made by Contractor to obtain and maintain the insurance coverages set forth herein.

ATTACHMENT 12

INVESTMENT GUIDELINES

Investment Objective To earn risk-adjusted yield, provide liquidity, and preserve capital

Portfolio Strategy Custom laddered U.S. Treasury Fixed Income Strategy

Compliance Compliance with the Investment Guidelines for the strategy will be determined based on the market value of the underlying investments as of the end of the Ramp-up Period. In the event the portfolio's composition deviates from the Investment Guidelines as of the end of the Ramp-up Period, the Manager will either use commercially reasonable efforts to alter the portfolio's composition such that it is within the Investment Guidelines or consult with Client to outline a plan to alter the portfolio's composition such that it is within the Investment Guidelines.

Compliance with the Investment Guidelines shall be assessed based on the investment portfolio constructed by the Manager. The Manager shall not be required to comply with the Investment Guidelines to the extent investment activity is conducted in the Account by a party other than the Manager.

Ramp-up Period The lesser of (i) 45 days or (ii) the period of time required to initially invest 95% of the investment amount indicated above. Manager will use commercially reasonable efforts to maintain yield on funds during the ramp-up period through investment in short-term Treasury bills.

Portfolio Duration The Manager will aim to match investment maturities to the Trust disbursement schedule, as initially communicated and periodically updated by client, with intent to hold investments to maturity as is prudent and practical.

Benchmark The Benchmark shall be the total rate of return of the Liability discounted at the "Liquidity Portfolio Benchmark" curve using standard quantitative techniques.

If liability assumptions change, the benchmark will be adjusted to match the new liability profile. The portfolio will then be rebalanced so the cash flows of the portfolio reasonably match the cash flows of the benchmark. The Liquidity Portfolio Benchmark curve will be derived using the zero coupon U.S. Treasury curve built from the U.S. Treasury curve.

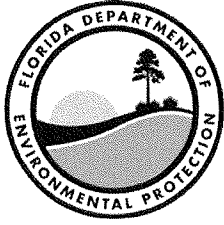
Maximum allocation	Instrument	Eligible investments and limitations
100%	Cash	Cash, and cash equivalents
100%	US Treasury Securities	Securities issued by the U.S. Department of Treasury backed by the full faith and credit of the United States of America

Maturity and Duration Guidelines	Constraints
Security maximum maturity	Equal to date of last projected draw

Cash equivalents are limited to Short-Term Investment Funds (STIFs) selected by Client that hold U.S. Government securities, seek to maintain a constant NAV, and are not subject to liquidity gates or fees. When measured on a trade date basis, Cash and Cash Equivalents may be less than zero, provided the portfolio holds U.S. Treasuries maturing in 185 days or less as are sufficient to offset the negative amount.

Review and Modification

These objectives and guidelines shall be reviewed periodically, and revised or confirmed as needed.



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Duke Energy Florida
Witness: Terry Hobbs
Exhibit No. ____ (TH-1)
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Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

February 15, 2019

Sent by Electronic Mail – Document Access Verification Requested

Terry Hobbs
General Manager Decommissioning SAFSTOR
Crystal River Nuclear Plant
15760 West Power Line Street
Crystal River, FL 34428
Terry.Hobbs@Duke-Energy.com

RE: Crystal River Unit 3 (CR3) – Decommissioning End State Conditions

Mr. Hobbs:

This letter is in response to your December 10, 2018, request for the Florida Department of Environmental Protection's (DEP's or Department's) concurrence on three specific end state conditions that will be used in Duke Energy Florida's (DEF's) development of a U.S. Nuclear Regulatory Commission (NRC) License Termination Plan (LTP) for the CR3 site. The three specific end state conditions are: 1) radioactivity dose limit for unrestricted site release; 2) excavation depth to which subsurface plant structures will be removed; and 3) reuse of clean concrete debris.

As part of preparing the LTP, DEF has indicated that it is evaluating accelerating the decontamination and dismantlement (D&D) of CR3. Some of the topics to be covered in DEF's LTP include: radiological characterization of the site; identification of dismantlement activities; plans for site remediation; detailed plans for the final radiation survey; a description of the end use of the site, if restricted; and a description of any new or significant environmental change associated with the licensee's proposed termination activities. DEF will submit the LTP to the NRC for their review and approval in accordance with federal regulations. Additionally, as part of the FDEP Conditions of Certification (COC) for the Crystal River Energy Complex, DEF is required to submit a copy of the LTP to the Department when it is filed with the NRC to allow the Department to identify any deficiencies in the plan.

You stated in your letter that the ability to establish end state conditions with certainty is critical to DEF's ability to determine the estimated cost to perform accelerated D&D, and to decide when D&D should be initiated. You also stated that it is DEF's position that

Terry Hobbs
February 15, 2019
Page 2 of 5

the end state conditions for which you seek concurrence are either associated with an existing pre-emptive federal regulatory requirement or will be part of the LTP.

The end state conditions that have been determined by DEF to have the greatest potential to affect accurate D&D cost estimation are those for which DEP review and concurrence is requested. The three specific requests are addressed separately below.

1. Specific End State Condition 1: Radioactivity dose limit for unrestricted site release.

DEF requests concurrence from DEP that 25 millirem/year (distinguishable from background) is an acceptable dose limit for use in CR3 decommissioning plans for unrestricted site release.

Federal Regulations

In your submittal, you cite the NRC criteria for radiological release of a site during license termination in 10 CFR 20.1402 as no greater than 25 millirem/year and As Low As Reasonably Achievable (ALARA).¹ NRC Regulatory Guide 1.179 provides that the LTP should demonstrate that the dose from residual radioactivity that is distinguishable from background radiation does not exceed 25 millirem (mrem) per year, and that residual radioactivity means radioactivity in structures, materials, soils, ground water, and other media at a site resulting from activities under the licensee's control. According to your research, the NRC has not deviated from this regulation for any of the commercial nuclear power plants decommissioned to date.

State Regulations

Rule 62-550.310(6)(b), Florida Administrative Code (F.A.C.), includes a Primary Drinking Water standard for man-made radionuclides of an annual dose equivalent no greater than 4 millirem/year. Although the NRC criteria of 25 millirem/year applies to the total effective dose equivalent which would include any potential potable use of groundwater, among other things, DEF has committed to ensuring that the 4 millirem/year standard will be applied as a dose limit for any potential potable use of groundwater at the CR3 site.

Department of Health Rule 64E-5, F.A.C., describes a site as acceptable for unrestricted use if the total effective dose equivalent from the residual radioactivity does not exceed 25 millirem/year including radioactivity from groundwater sources of drinking water and the residual radioactivity levels are as low as reasonably achievable. This is consistent with the NRC acceptance criteria of 25 millirem/year.

¹ U.S. Nuclear Regulatory Commission, Title 10, Code of Federal Regulations, Part 20, Subpart E, Section 20.1402, "Radiological criteria for unrestricted use."

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Conclusion

DEP concurs that 4 millirem/year is an acceptable proposed dose limit for any potential drinking water use of groundwater at the site; and that the referenced federal and state 25 millirem/year criteria is an acceptable proposed dose limit for release of the site for unrestricted use in CR3 decommissioning plans to be submitted to the NRC for review and approval.

2. Specific End State Condition 2: Excavation depth to which subsurface plant structures will be removed.

DEF requests concurrence from DEP that three feet below grade is an acceptable depth to which all subsurface structures would be removed in preparation for final radiological surveys.

LTPs must address planned actions to either remove or evaluate the structural components that will remain behind before final site surveys are performed. Removal of components at a site assures the 25 millirem/year dose rate will be met for the release of the site for unrestricted use. In your letter, you refer to establishment of the acceptance of excavation of structures to a depth of three feet in 1976 as an industry standard. You further state that this industry standard has historically been used both during the development of regulatory required Decommissioning Cost Estimates (DCE), and in LTPs submitted and approved by the NRC. For example, you referenced the NRC's September 28, 2018, approval that included an LTP for the Zion Nuclear Power Station, Units 1 and 2 which reflected use of the three-foot depth as the excavation standard.

As you pointed out, DEF published its intent to implement its strategy in its Post-Shutdown Decommissioning Activity Report.²

'This study assumes that site structures addressed by this analysis are removed to a nominal depth of three feet below the top grade of the embankment, wherever possible. This assumption was applied to the disposition of all CR-3 facilities on the berm and, as a result, the general topography of the berm will be retained at the conclusion of site restoration. The three-foot depth allows for the placement of gravel for drainage, as well as topsoil, so that vegetation can be established for erosion control.'

For comparison, the quantity of fill required for closure of facilities such as landfills in Florida is typically specified as two feet of clean fill with the top six inches supportive of vegetative growth. The proposed end state condition for CR3 of excavation of subsurface structures to a three-foot depth and replacement of the

² CR-3 to NRC letter, 3F1213-02, "Crystal River Unit 3-Post-Shutdown Decommissioning Activities Report," December 2, 2013

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excavated area with three feet of fill appears more stringent than landfill requirements.

Conclusion

With the understanding that DEF will assure remediation of the site will be performed to meet the 25 millirem/year limit in Rule 64E-5, F.A.C., DEP concurs that the proposed industry standard of a removal depth for subsurface structures to a resulting depth of three feet below final grade is acceptable in preparation for final radiological surveys for use in CR3 decommissioning plans to be submitted to the NRC for review and approval.

3. Specific End State Condition 3: Reuse of clean concrete debris.

CR3 requests concurrence from DEP with its plans to segregate clean concrete debris produced during the demolition of site structures and to recycle the clean concrete debris to backfill the subsurface structures that will remain in place.

Federal Regulations

According to the information provided in your letter, Supplement I of the NRC's Generic Environmental Impact Statement requires facilities to perform an analysis of acceptability of demolition debris prior to its reuse. The analysis is submitted and reviewed as part of the LTP. CR3 plans to perform the analysis required to obtain approval to segregate clean concrete debris produced during the demolition of site structures and to recycle the clean demolition debris to backfill the subsurface structures.

You note that in 2018, this practice was approved in the LTP for the Zion Nuclear Power Station in Illinois. Zion described how radiological surveys and samples would be performed to provide confidence that any plant-derived radionuclides would be detected, and agreed to assign a dose contribution to concrete debris designated for reuse, including for debris that surveys confirmed would be acceptable for an unconditional offsite release. The NRC Zion LTP Safety Evaluation Report issued in September 2018 concurred that Zion appropriately analyzed the acceptability of reuse of concrete debris with respect to assuring that any undetected contribution to the final radiological conditions of the site that might be present because of reuse of demolition debris would not impact the station's ability to meet the 25 millirem/year limit for unrestricted release. '

State Regulations

As identified in your letter, Rule 62-701.730(17), F.A.C., includes a provision for recycling or reuse of demolition debris, via onsite disposal, on the property where it is generated. That is, this provision would allow reuse of non-contaminated concrete

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debris as structural fill for remaining subsurface structures. It is your understanding, based on discussions with DEP regulatory staff, that disposal of concrete, meeting the definition of "clean debris" contained in Rule 62-701.200, F.A.C., on the property where it was generated is allowable pursuant to this rule with no further required permitting. As defined in Rule 62-701.200(15), F.A.C., "Clean debris" means:

"any solid waste that is virtually inert, is not a pollution threat to ground water or surface waters, is not a fire hazard, and is likely to retain its physical and chemical structure under expected conditions of disposal or use. The term includes brick, glass, ceramics, and uncontaminated concrete including embedded pipe or steel."

You stated, "It is DEF's position that so long as radiological surveys (i.e. inspections) are performed to verify concrete is not contaminated and would be acceptable for unconditional offsite release to any construction and debris landfill in accordance with federal guidelines, that the debris produced from demolition of the concrete would meet state requirements to be considered uncontaminated concrete and therefore clean debris if no other contaminants of concern are present."

Conclusion

With the understanding that DEF will perform radiological surveys and assure that the debris produced from demolition of the concrete would meet state requirements to be considered "clean debris" as defined in Rule 62-701.200(15), F.A.C., DEP concurs with DEF's plans to segregate clean concrete debris produced during the demolition of site structures and to recycle the clean demolition debris to backfill the subsurface structures that will remain in place. Please note that the cited provision under Rule 62-701.730(17), F.A.C., allowing clean debris such as non-contaminated concrete to be disposed of on the property where it is generated, also specifies that the final cover shall consist of a 24-inch-thick soil layer, as well as other requirements such as associated grading and side slope requirements.

If you have questions regarding this feedback please contact me at (850) 717-9110.

Sincerely,

Cindy Mulkey, Administrator
Siting Coordination Office

CC by email:
Paula Leverett Cobb, Duke
John A. Coates, DEP

ATTACHMENT 14-A

ENVIRONMENTAL PERMITS

As of the Closing Date, all existing Environmental Permits (a) will be maintained by Company; or (b) will have been obtained by Contractor (or its designee), or transferred from Company to and held by Contractor (or its designee), as indicated in the table below.

In the event the disposition of an Environmental Permit as described below cannot be completed as of the Closing Date, Company may, at its sole discretion, continue to hold such Environmental Permit as needed to facilitate implementation of the Project Schedule. Notwithstanding the foregoing, Company shall have no obligation to allow Contractor to operate under any of Company's Environmental Permits if Company determines, in its sole discretion, that Contractor has failed to promptly and diligently complete all necessary applications and other requirements to obtain any such Environmental Permits. Moreover, if Company has good faith reasons to believe, in its sole discretion, that Contractor has in the past, is currently, or will in the future fail to comply with any Environmental Laws, then Company shall have no obligation to allow Contractor to operate under any of the Company's Environmental Permits.

The existing Environmental Permits known to Company that are subject to the provisions above are listed below. Notwithstanding the foregoing, Contractor is and will be solely responsible for (i) identifying all Environmental Permits that are required for Contractor to perform the Decommissioning; and (ii) confirming, prior to the performance of any Decommissioning work that all Environmental Permits applicable to such Decommissioning work have been approved and are valid and in effect.

ENVIRONMENTAL PERMITS	DISPOSITION
Conditions of Certification Duke Energy Florida Crystal River Energy Complex Sections PA 77-09S	Company to request release from Conditions that no longer apply. General and CR3 Specific Conditions that continue to apply to be transferred from Company to Contractor.
NPDES Wastewater Discharge Permit FL0000159	Company to modify the Permit renewal application to request the creation of a standalone Permit for CR3. If approved, new Permit to be transferred from Company to Contractor. If not approved, Contractor to apply for new NPDES permit.
NPDES Multi Sector Generic Permit (MSGP) Notice of Intent (NOI) for Storm Water Discharge (CR123) issued per 62-621.300(5) FAC	Company to request change in Standard Industrial Classification (SIC) of the CR-3 Facility to support eliminating this Permit; if this Permit cannot be eliminated, Company to submit Notice of Termination (NOT) and Contractor to submit a Notice of Intent (NOI) to obtain their own permit coverage.
Domestic Wastewater Facility Permit (CR123) issued per Chapter 403 FS and 62-600 FAC	Permit to be transferred from Company to Contractor.

ENVIRONMENTAL PERMITS	DISPOSITION
CR3 South Laydown Area-Storm Water System Permits 09-0270612-005 and 017	Permit to be transferred from Company to Contractor.
Helper Cooling Tower/ EPU Laydown Area Storm Water permit # 09-0270612-007 and #09-0270612-020	Company will continue to hold this Permit.
CR3 Spent Fuel Storage Area Storm Water System Permit PA77-090	Permit to be transferred from Company to Contractor.
Hazardous Waste EPAID number: FLD040216764 (CREC) issued per EPA 40CFR261	Contractor to obtain its own EPA ID number, under which Contractor shall operate.
Title V Air Operation Permit 0170004 (CREC)	Company to remove CR-3 Facility equipment from Permit. Contractor to determine if a new permit is needed for performance of the Decommissioning activities based on planned deployment of equipment in support of the Decommissioning, and shall obtain any such required Permit(s).
Special Purpose Permit, Alligator Management Program SPGS-18-32 (CREC)	Company will continue to hold this Permit. Contractor will notify Company if activities under this Permit must be performed, and upon authorization by Company, Contractor will coordinate management activities through a licensed subcontractor reasonably acceptable to Company.
USFWS Depredation Permit No. MB05556B-0	Company will continue to hold this Permit. Contractor will notify Company if activities under this Permit must be performed, and upon authorization by Company, Contractor will coordinate management activities through a licensed subcontractor reasonably acceptable to Company.

Execution Copy

ATTACHMENT 14-B

REQUIREMENTS FOR SEA TURTLE PROTECTION

On July 15, 1999, the National Marine Fisheries Service (“NMFS”), under Section 7 of the Endangered Species Act, issued a Biological Opinion regarding sea turtle species at the intake area of the Crystal River Energy Complex, which was replaced and superseded by a Biological Opinion NMFS issued on August 8, 2002, as may be replaced and superseded (the “Biological Opinion”). Compliance with the Biological Opinion is a requirement of the NRC License and the Biological Opinion authorizes take of listed species that may occur as a result of implementing the NRC License. Compliance with the Biological Opinion’s requirements is achieved through Section 4.2 of the Permanently Defueled Technical Specifications of the NRC License (the “Turtle Tech Spec”) and supporting procedures.

In connection with the transfer of the NRC License from Company to Contractor, the Parties acknowledge and agree that, as of the Closing Date:

- (a) Company will be the authorized agent of Contractor for the sole purpose of operating the intake area of the Crystal River Energy Complex and any take of listed species in the Biological Opinion caused by Company as a result of Company operating the intake area shall remain authorized by the Biological Opinion;
- (b) Contractor will have and maintain a procedure in full force and effect that implements the requirements of the Turtle Tech Spec, which may be amended from time to time after the Closing Date in consultation with Company (the “Contractor Turtle Procedure”); and
- (c) Company will have and maintain a procedure in full force and effect that describes the activities in the Contractor Turtle Procedure that Company will perform on behalf of Contractor, which may be amended from time to time after the Closing Date in consultation with Contractor (the “Company Turtle Procedure”).

Each Party shall cooperate with the other Party in connection with the development of the Contractor Turtle Procedure and the Company Turtle Procedure.

Following the Closing Date, Company will use commercially reasonable efforts to implement an alternative means to achieve compliance with the Endangered Species Act by December 31, 2026 for intake area operations so that the requirement to comply with the Biological Opinion can be removed from the NRC License. However, until such alternate means is implemented by Company, Contractor shall maintain the Contractor Turtle Procedure in full force and effect and shall not file an amendment with the NRC to amend or remove the Turtle Tech Spec or cause a consultation with NMFS to be reinitiated.

**Exhibit No. __ (TH-1) to the
Direct Testimony of Terry Hobbs**

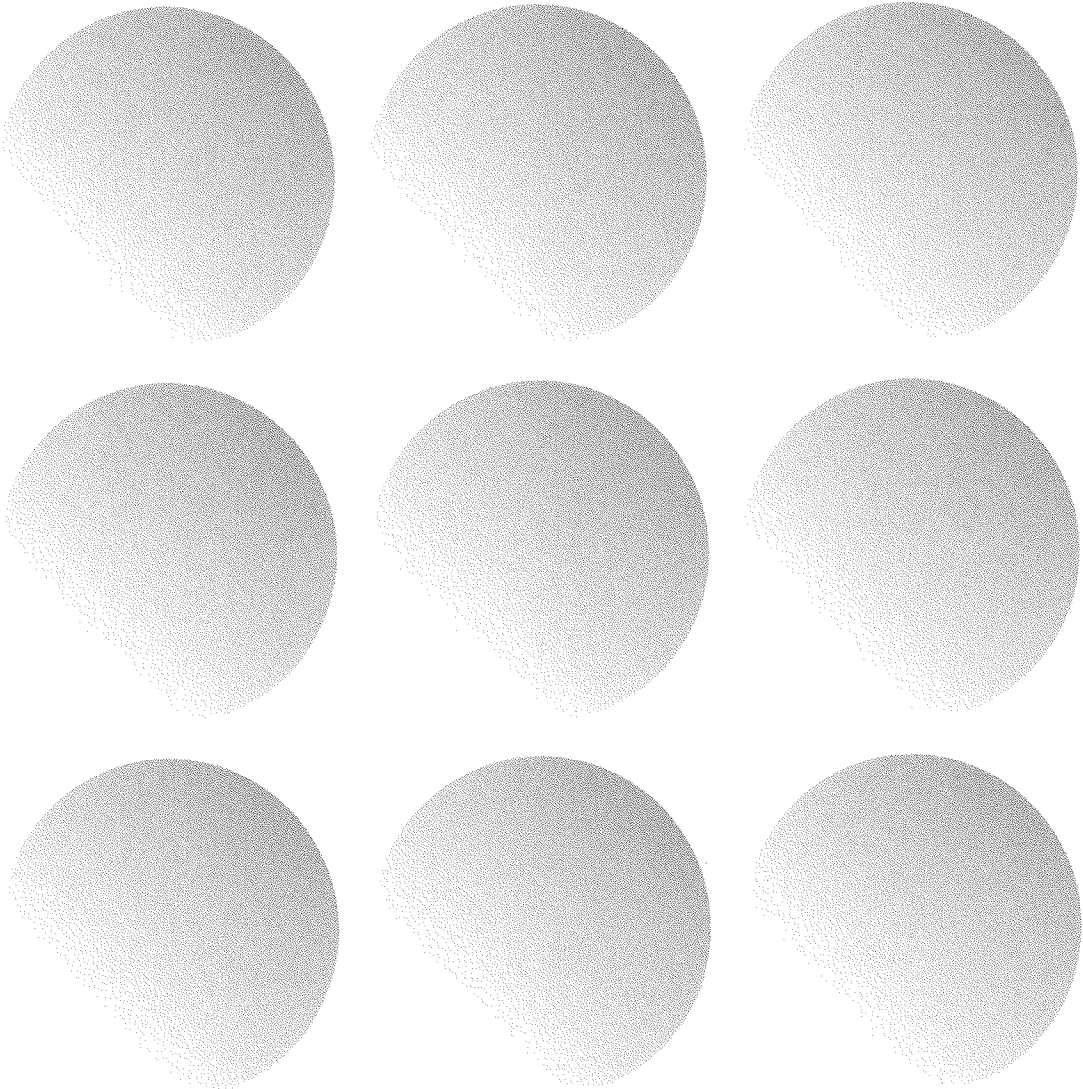
Pages 530-537 of 597

Attachment 15

**REDACTED IN
ENTIRETY**



Z Choice[®] Pollution Legal Liability





Market leadership

Zurich has been providing comprehensive solutions for more than 140 years around the globe

Financial strength

We demonstrate strength and stability:
AA- S&P and A+ A.M. Best ratings

Industry experience

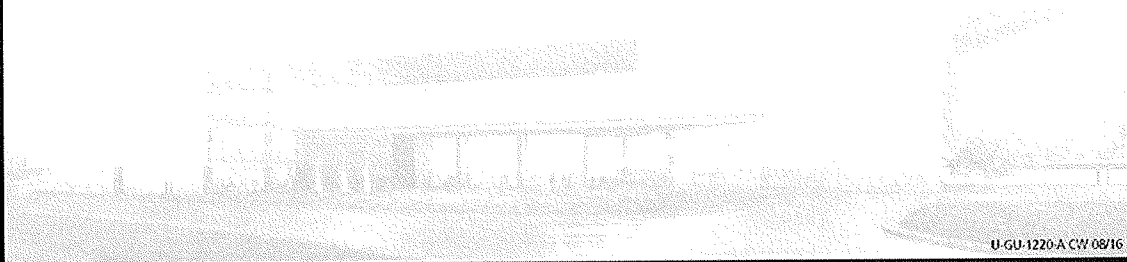
Zurich insures 90% of Fortune 500 companies, and provides cutting-edge insights for 25 industries

Exceptional people

We are a values-based organization and live the Zurich Commitment in all we do, which includes acting responsibly and following our core values

Delivering when it matters

Customers who experience Zurich Claims service in the U.S. are twice as likely to recommend Zurich



U-GU-1220-A CW 08/16

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www.zurichna.com

Rating as of 12/31/2015. A.M. Best's and S&P's ratings are under continuous review and subject to change and/or affirmation. For information about the ratings of Zurich American Insurance Company and its subsidiaries, access the ratings section on www.zurichna.com. The rating represents the overall financial status of the individual member companies of Zurich in North America, including Zurich American Insurance Company, and is not a recommendation of the specific policy provisions, rates or practices of each issuing insurance company.

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PROPOSAL

Submission ID: 16962696

Z Choice® Pollution Legal Liability

Proposal prepared for:

Name Insured Address:

Proposal Issued By: Steadfast Insurance Company

Date of Proposal:

This Proposal is presented to you with the understanding that neither Zurich nor any of its subsidiaries, affiliates or employees, offer or purport to offer, advice to you concerning the proper financial, accounting, or tax treatment for the policy(ies) of insurance referenced herein and nothing should constitute such advice. If accounting advice, tax advice or other expert professional assistance is required you should consult with your own accountant, advisor, counsel or other similar competent professional with expertise in the required field.

Overview

Policy Period: TBD to See Options Below

Covered Locations:

Site	Address	Use Description	Retroactive Date	Delimitation Date
1				

Schedule of Proposed Limits, Deductibles and Premium					
Option #	Limits of Liability		Deductible Each Pollution Event	Term (Years)	Total Premium
Applies to All Options	Crisis Management Expense Aggregate Limit:	\$50,000			
	Green Remediation Aggregate Limit:	\$50,000			
	Green Standards Aggregate Limit:	\$50,000			
1	Each Pollution Event Limit:	\$25,000,000	\$1,000,000	3	
	Aggregate Policy Limit:	\$25,000,000		9	

Terrorism Risk Insurance Program Act (TRIA)

The premium includes a 1% additional charge on the US exposure premium applicable to coverage under the Terrorism Risk Insurance Program Reauthorization Act of 2007. Please refer to the attached Disclosure of Premium Notice U-GU-632-D

Surplus Lines Filings

Insurance offered through Steadfast Insurance Company must be placed by a surplus lines producer licensed in the jurisdiction where the policy is issued. The surplus lines producer shall be responsible for complying with all applicable regulatory requirements including the remittance of the premium tax.

Insuring Agreements / Coverages	
Coverage A: Cleanup Costs – Onsite and/or Offsite Existing and/or New Pollution Event	
Existing Pollution Event	
On-Site First Party Discovery	NO
On-Site Third Party Liability	YES
Off-Site First Party Discovery	NO
Off-Site Third Party Liability	YES
New Pollution Event	
On-Site First Party Discovery	YES
On-Site Third Party Liability	YES
Off-Site First Party Discovery	YES
Off-Site Third Party Liability	YES
Coverage B: Bodily Injury, Property Damage and Natural Resource Damages – Onsite and/or Offsite Existing and/or New Pollution Event	
Existing Pollution Event	
1. On-Site	YES
2. Off-Site	YES
New Pollution Event	
1. On-Site	YES
2. Off-Site	YES
Coverage C: Non Owned Location Liability	YES
Coverage D: Transportation Liability	YES
Coverage E: Incidental Contractor’s Pollution Liability	NO
Coverage F: Loss of Business and/or Rental Income	
Loss of Business Income	NO
Loss of Rental Income	NO
Coverage G: Emergency Expenses	YES

If applicable, Coverage F Period of Indemnity: N/A

If applicable, Coverage F Waiting Period: N/A

**THIS DISCLOSURE DOES NOT GRANT ANY COVERAGE OR CHANGE THE TERMS
AND CONDITIONS OF ANY COVERAGE UNDER ANY POLICY.**

**DISCLOSURE OF IMPORTANT INFORMATION
RELATING TO TERRORISM RISK INSURANCE ACT**

SCHEDULE*

Premium attributable to risk of loss from certified acts of terrorism for lines of insurance subject to TRIA:

1% OF APPLICABLE PREMIUM

*Any information required to complete this Schedule, if not shown above, will be shown in the quote or proposal.

A. Disclosure of Premium

In accordance with the federal Terrorism Risk Insurance Act ("TRIA"), as amended, we are required to provide you with a notice disclosing the portion of your premium, if any, attributable to the risk of loss from terrorist acts certified under that Act for lines subject to TRIA. That portion of premium attributable is shown in the Schedule above. The premium shown in the Schedule above is subject to adjustment upon premium audit, if applicable.

B. Disclosure of Federal Participation in Payment of Terrorism Losses

The United States Government may pay a share of insured losses resulting from an act of terrorism. The federal share will decrease by 5% from 85% to 80% over a five year period while the insurer share increases by the same amount during the same period. The schedule below illustrates the decrease in the federal share:

January1, 2015 – December 31, 2015 federal share: 85%

January1, 2016 – December 31, 2016 federal share: 84%

January1, 2017 – December 31, 2017 federal share: 83%

January1, 2018 – December 31, 2018 federal share: 82%

January1, 2019 – December 31, 2019 federal share: 81%

January1, 2020 – December 31, 2020 federal share: 80%

C. Disclosure of \$100 Billion Cap on All Insurer and Federal Obligations

If aggregate insured losses attributable to terrorist acts certified under TRIA exceed \$100 billion in a calendar year (January 1 through December 31) and an insurer has met its deductible under the program, that insurer shall not be liable for the payment of any portion of the amount of such losses that exceeds \$100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of Treasury.

D. Availability

As required by TRIA, we have made available to you for lines subject to TRIA coverage for losses resulting from acts of terrorism certified under TRIA with terms, amounts and limitations that do not differ materially from those for losses arising from events other than acts of terrorism.

E. Definition of Act of Terrorism under TRIA

TRIA defines "act of terrorism" as any act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act ("TRIA"), to be an act of terrorism. The Terrorism Risk Insurance Act provides that the Secretary of Treasury shall certify an act of terrorism:

1. To be an act of terrorism;
2. To be a violent act or an act that is dangerous to human life, property or infrastructure;
3. To have resulted in damage within the United States, or outside of the United States in the case of an air carrier (as defined in section 40102 of Title 49, United States Code) or a United States flag vessel (or a vessel based principally in the United States, on which United States income tax is paid and whose insurance coverage is subject to regulation in the United States), or the premises of a United States mission; and
4. To have been committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

No act may be certified as an "act of terrorism" if the act is committed as part of the course of a war declared by Congress (except for workers' compensation) or if losses resulting from the act, in the aggregate for insurance subject to TRIA, do not exceed \$5,000,000.

Endorsement #



Sanctions Exclusion Endorsement

Policyholder:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

The following exclusion is added to the policy to which it is attached and supersedes any existing sanctions language in the policy, whether included in an Exclusion Section or otherwise:

SANCTIONS EXCLUSION

Notwithstanding any other terms under this policy, we shall not provide coverage nor will we make any payments or provide any service or benefit to any insured, beneficiary, or third party who may have any rights under this policy to the extent that such cover, payment, service, benefit, or any business or activity of the insured would violate any applicable trade or economic sanctions law or regulation.

The term policy may be comprised of common policy terms and conditions, the declarations, notices, schedule, coverage parts, insuring agreement, application, enrollment form, and endorsements or riders, if any, for each coverage provided. Policy may also be referred to as contract or agreement.

We may be referred to as insurer, underwriter, we, us, and our, or as otherwise defined in the policy, and shall mean the company providing the coverage.

Insured may be referred to as policyholder, named insured, covered person, additional insured or claimant, or as otherwise defined in the policy, and shall mean the party, person or entity having defined rights under the policy.

These definitions may be found in various parts of the policy and any applicable riders or endorsements.

ALL OTHER TERMS AND CONDITIONS OF THIS POLICY REMAIN UNCHANGED



Disclosure Statement

It is our pleasure to present the enclosed policy to you
for presentation to your customer.

INSTRUCTION TO AGENT OR BROKER:

WE REQUIRE THAT YOU TRANSMIT THE ATTACHED/ENCLOSED DISCLOSURE STATEMENT TO THE CUSTOMER
WITH THE POLICY.

Once again, thank you for your interest, and we look forward to meeting your needs and those of your customers.

SPECIMEN



Disclosure Statement

NOTICE OF DISCLOSURE FOR AGENT & BROKER COMPENSATION

If you want to learn more about the compensation Zurich pays agents and brokers visit:

<http://www.zurichnaproducercompensation.com>

or call the following toll-free number: (866) 903-1192.

This Notice is provided on behalf of Zurich American Insurance Company
and its underwriting subsidiaries.

SPECIMEN



ZURICH

Z Choice[®] Pollution Liability Declarations

STEADFAST INSURANCE COMPANY
Dover, Delaware
Administrative Offices – 1299 Zurich Way
Schaumburg, Illinois 60196

THIS POLICY PROVIDES COVERAGE ON A DISCOVERY AND/OR CLAIMS-MADE AND REPORTED BASIS DEPENDING UPON THE COVERAGE LISTED AS PROVIDED BELOW. PAYMENT OF DEFENSE COSTS ERODES THE APPLICABLE LIMITS OF LIABILITY. THE ITEMS BELOW MAY BE MODIFIED BY ENDORSEMENT. READ THE DECLARATIONS, POLICY, AND ALL ENDORSEMENTS CAREFULLY.

Policy Number: TBD

Renewal of:

Item 1. Named Insured:

Address:

Item 2. Policy Period: From: TBD To:
12:01 A.M. Local time at the address shown in Item 1.

Item 3. Limits of Liability: \$25,000,000 Each Pollution Event Limit
\$25,000,000 Aggregate Policy Limit

See Schedule of Covered Locations (Financial Assurance) for applicable Financial Assurance Limits to the extent coverage for Financial Assurance is provided

**Supplementary Payments
Limits:**

\$50,000 Crisis Management Expenses Limit
\$50,000 Green Remediation Expenses Limit
\$50,000 Green Standards Expenses Limit
\$50,000 Insured Compensation Expenses Limit

Item 4. Deductible: \$1,000,000 Each Pollution Event

Item 5. Coverages:

This policy provides coverage only with respect to the specific Insuring Agreements indicated below and as described in the Z Choice[®] Pollution Liability policy and/or any endorsements. If the word YES appears in the PROVIDED column corresponding with an insuring agreement listed below, it means that such coverage is provided in this policy. If the space on this Declarations in the PROVIDED column is blank or blacked out it means that such coverage is not provided in this policy.

INSURING AGREEMENTS	PROVIDED
Coverage A: Cleanup Costs – Onsite and/or Offsite Existing and/or New Pollution Event	
Existing Pollution Event	
On-Site First Party Discovery	NO
On-Site Third Party Liability	YES
Off-Site First Party Discovery	NO
Off-Site Third Party Liability	YES
New Pollution Event	
On-Site First Party Discovery	YES
On-Site Third Party Liability	YES
Off-Site First Party Discovery	YES
Off-Site Third Party Liability	YES
Coverage B: Bodily Injury, Property Damage and Natural Resource Damages – Onsite and/or Offsite Existing and/or New Pollution Event	
Existing Pollution Event	
1. On-Site	YES
2. Off-Site	YES
New Pollution Event	
1. On-Site	YES
2. Off-Site	YES
Coverage C: Non Owned Location Liability	YES
Coverage D: Transportation Liability	YES
Coverage E: Incidental Contractor’s Pollution Liability	NO
Coverage F: Loss of Business and/or Rental Income	
Loss of Business Income	NO
Loss of Rental Income	NO
Coverage G: Emergency Expenses	YES

Item 6. Coverage F Period of Indemnity: N/A

Item 7. Coverage F Waiting Period: N/A

Item 8. Policy Premium: \$TBD

Item 9. Broker:



Schedule of Forms and Endorsements

Form/Endorsement Title	Form Number
Sanctions Exclusion Endorsement	U-GU-1191-A CW (03/15)
Z Choice® Pollution Liability Declarations	STF-EPC-D-100-C CW (06/13)
Z-Choice Pollution Liability Policy	STF-EPC-100-C CW (06/13)
Schedule of Covered Locations with Material Change in Use/Operations Exclusion	STF-EPC-151-B CW (11/15)
Additional Insured (Where Required by Contract)	STF-EPC-196-C CW (05/17)
Known Pollution Event Schedule - Excluding Cleanup	STF-EPC-304-B CW (05/15)
Nuclear Energy Liability Exclusion	STF-EPC-312-A CW (06/13)
Additional Named Insured	STF-EPC-326-B CW (05/15)
Deed Restrictions and Land Use Controls Exclusion	STF-EPC-329-B CW (11/15)
Minimum Earned Premium	STF-EPC-334-B CW (11/15)
Amendment of Cancellation	STF-EPC-A 350 (11-15)
Amendment of Transportation Definition - First and Third Party Coverage for all Modes	STF-EPC-353-A CW (05/16)
Amendatory Endorsement	STF-EPC-359-A CW (03/16)
Microbial Substances Cleanup Costs Exclusion	STF-EPC-370-A CW (02/17)
Important Notice Service of Suit and In Witness Clause	STF-GU-199-B (01 09)
DISCLOSURE OF IMPORTANT INFORMATION RELATING TO TERRORISM RISK INSURANCE ACT	U-GU-630-D CW (01/15)
Cap On Losses From Certified Acts Of Terrorism	U-GU-767-B CW (01/15)



ZURICH

Z Choice[®] Pollution Liability Policy

This policy provides coverage on a discovery and/or claims-made and reported basis depending upon the coverage specifically listed as provided in Item 5. of the Declarations. A "pollution event" must be first "discovered" during the "policy period" and reported to us in writing during the "policy period" or applicable extended reporting period. A "claim" must be first made against an "insured" during the "policy period" or optional extended reporting period, if purchased, and such "claim" must be reported to us in writing during the "policy period" or applicable extended reporting period. Notice of a "potential claim" is not notice of a "claim".

This policy has certain unique provisions and requirements that may be different from other policies the "insured" may have purchased. Coverage is provided only if the word YES appears in the column marked PROVIDED set forth in Item 5. of the Declarations and to the extent indicated in a Schedule of Covered Locations endorsement. The payment of "claim expenses" reduces the applicable Limits of Liability set forth in Item 3. of the Declarations. If the applicable Limits of Liability are exhausted, we shall not be liable for "claim expenses", "loss", "cleanup costs", "interruption expenses", "emergency expenses" or Supplementary Payments which would otherwise be covered under this policy. Read the entire policy carefully including any endorsements thereto to determine rights, duties, and what is and is not covered.

Throughout this policy, the words "we", "us" and "our" refer to the Company providing this insurance as identified in the Declarations. Other words and phrases that appear in quotation marks have special meaning. Refer to DEFINITIONS (Section V.).

In consideration of the "first named insured's" payment of premium and the Deductible, in reliance upon the statements made in the Application all of which are made a part hereof, and subject to the Limits of Liability of this insurance as set forth in Item 3. of the Declarations, and the exclusions, conditions and other terms of this policy, we agree with the "first named insured" as follows:

I. INSURING AGREEMENTS

THESE COVERAGES ONLY APPLY IF AND TO THE EXTENT SPECIFICALLY LISTED AS PROVIDED IN ITEM 5. OF THE DECLARATIONS.

COVERAGE A: CLEANUP COSTS - ONSITE AND/OR OFFSITE EXISTING AND/OR NEW POLLUTION EVENT LIABILITY

We will pay "cleanup costs" an "insured" is legally obligated to pay to the extent "cleanup costs" result from an "existing pollution event" and/or "new pollution event" that is on, at, under, migrating or which has migrated from a "covered location" if that "pollution event":

1. Is first "discovered" during the "policy period" and the "discovery" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.); or
2. Results in a "claim" first made against the "insured" during the "policy period" or optional extended reporting period, if purchased, and the "claim" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE B: BODILY INJURY, PROPERTY DAMAGE AND NATURAL RESOURCE DAMAGES - ONSITE AND/OR OFFSITE EXISTING AND/OR NEW POLLUTION EVENT LIABILITY

We will pay "loss" that an "insured" is legally obligated to pay as a result of a "claim" for "bodily injury", "property damage" or "natural resource damages" resulting from an "existing pollution event" and/or "new pollution event" that is on, at, under, migrating or which has migrated from a "covered location", provided the "claim" is first made against the "insured" during the "policy period" or optional extended reporting period, if purchased, and the "claim" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE C: NON-OWNED LOCATIONS LIABILITY

We will pay "loss" and "cleanup costs" resulting from a "pollution event" that is on, at, under, migrating or which has migrated from a "non-owned location" and that an "insured" is legally obligated to pay as a result of a "claim" made by parties other than the owner, operator, or contractor of the "non-owned location", provided the "claim" is first made against the "insured" during the "policy period" or optional extended reporting period, if purchased, and the "claim" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE D: TRANSPORTATION LIABILITY

We will pay "loss" and "cleanup costs" resulting from a "pollution event" that happens in the course of "transportation" that an "insured" is legally obligated to pay as a result of a "claim", provided the "claim" is first made against the "insured" during the "policy period" or optional extended reporting period, if purchased, and the "claim" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE E: INCIDENTAL COVERED OPERATIONS LIABILITY

We will pay "loss" and "cleanup costs" resulting from a "pollution event" caused by "covered operations" that an "insured" is legally obligated to pay as a result of a "claim", provided that the "claim" is first made against the "insured" during the "policy period" or optional extended reporting period, if purchased, and the "claim" is reported to us in writing during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE F: LOSS OF BUSINESS AND/OR RENTAL INCOME

We will pay "interruption expenses" to the "named insured" during the "period of indemnity" caused by a "suspension of operations" on or at the "covered location" which is caused by a "pollution event" that results in "cleanup costs" covered under the policy, provided that the "suspension of operations" is reported to us during the "policy period" or applicable extended reporting period described in EXTENDED REPORTING PERIODS (Section VII.).

COVERAGE G: EMERGENCY EXPENSES

We will pay "emergency expenses" resulting from a "potential claim" if the "emergency expenses" are reasonably necessary to prevent or mitigate "cleanup costs" and/or "loss" to which insurance under this policy applies and the "potential claim" is reported to us during the "policy period" in writing as described in CLAIM PROVISIONS (Section IX.). Such "emergency expenses" must be reported to us in writing within ninety-six (96) hours of incurring such "emergency expenses".

II. SUPPLEMENTARY PAYMENTS

According to the terms of this policy, we will pay the following Supplementary Payments which will not reduce the Limits of Liability or Deductible. Supplementary Payments apply to Coverages A, B, C, D and E, and any other Insuring Agreement provided by endorsement to the policy indicated as applicable to Supplementary Payments.

A. CRISIS MANAGEMENT EXPENSES

We will pay "crisis management expenses" in order to minimize negative publicity and restore your reputation in response to a "claim" and/or "potential claim" resulting from a "pollution event" that subjects the "named insured" to significant adverse regional or national media attention provided the "crisis management expenses" are first incurred by the "named insured" during the "policy period" and reported to us in writing as described in CLAIM PROVISIONS (Section IX.).

The amount we will pay for "crisis management expenses" is set forth in Item 3. of the Declarations and described in LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.).

B. GREEN REMEDIATION EXPENSES APPLICABLE TO COVERAGE A ONLY

In connection with a "claim" under Coverage A for which we pay "cleanup costs" we will pay reasonable "green remediation expenses" incurred at the "insured's" election and for which we have provided our consent which shall not be unreasonably withheld, delayed or denied.

The amount that we will pay for "green remediation expenses" in connection with a "claim" for "cleanup costs" is set forth in Item 3. of the Declarations and described in LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.) paragraph F.

C. GREEN STANDARDS EXPENSES APPLICABLE TO COVERAGE A ONLY

In connection with a "claim" under Coverage A for which we pay "cleanup costs" for reasonable and necessary costs, charges and expenses to repair, replace or rebuild real property or improvements damaged in the course of performing activities for "cleanup", we will pay reasonable and necessary "green standards expenses" incurred in the repair, replacement or rebuilding of such damaged property, incurred at the "insured's" election and for which we have provided our consent which shall not be unreasonably withheld, delayed or denied.

The amount that we will pay for "green standard expenses" in connection with a "claim" is set forth in Item 3. of the Declarations and described in LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.) paragraph G.

D. INSURED COMPENSATION EXPENSES

In connection with a "claim" under the policy, we will pay for reasonable "insured compensation expenses" for which we have provided our consent which shall not be unreasonably withheld, delayed or denied.

The amount that we will pay for "insured compensation expenses" in connection with a "claim" is set forth in Item 3. of the Declarations and described in LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.) paragraph H.

III. DEFENSE

We shall have the right and duty to assume the adjustment, defense and settlement of any "claim", including "claims" within the Deductible amounts, to which coverage is specifically listed as provided in Item 5. of the Declarations applies. "Claim expenses" reduce the applicable Limits of Liability set forth in Item 3. of the Declarations as described in LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.).

If permitted by applicable law, we shall have the right to appoint one legal counsel to represent and/or defend one or more of the "insureds" who are or may be involved in a "claim" to which this insurance applies. In the event an "insured" is entitled by law to select independent counsel to represent and/or defend an "insured" at our expense, the attorney's fees and all other litigation expenses we must pay to that counsel are limited to "reasonable legal costs". Furthermore, an "insured" may at any time waive any right it may have to select independent counsel.

Our duty to adjust, defend and settle any and all "claims", pending and future, to which coverage is specifically listed as provided in Item 5. of the Declarations applies, ends when the remaining applicable Limits of Liability have been tendered into court or have been exhausted by payment of "loss", "cleanup costs", "interruption expenses" or "emergency expenses".

We may elect to investigate any "potential claim". Any costs associated with the investigation of a "potential claim" prior to a "claim" being made will not be considered "claim expenses". Such costs, if incurred by us, shall not reduce the applicable Deductible amount, and are in addition to the Limits of Liability and shall be borne by us.

IV. COVERAGE TERRITORY

This policy applies worldwide where permitted by applicable law.

V. DEFINITIONS

- A. "Bodily injury" means any physical injury, sickness, disease, mental anguish or emotional distress sustained by any person, including death resulting from any of these at any time.
- B. "Business operations" means the normal and customary operations of the "insured" applicable to Coverage F: Loss of Business Income and/or Rental Income as indicated in the Application or Business Income Calculator Worksheet.
- C. "Certified industrial hygienist" means a licensed professional currently certified pursuant to the requirements of the American Board of Industrial Hygiene and who has experience in indoor air quality, particularly with respect to "microbial substances". However, a "certified industrial hygienist" shall not, without our prior written consent which shall not be unreasonably withheld, delayed or denied, include:
 - 1. A "named insured";
 - 2. Any person who is an "insured" or who is an employee, director or officer of a "named insured" or of a "named insured's" parent, subsidiary or affiliate company; or
 - 3. Any person who has any investment or ownership interest in a "covered location" prior to or during the "policy period".

D. "Claim" means:

1. A written demand or written notice received by the "insured" alleging liability or responsibility on the part of the "insured"; or
2. A "suit" against the "insured" alleging liability on the part of the "insured".

"Claim" does not include a "potential claim" that was reported in a prior policy period as described in CLAIM PROVISIONS (Section IX.) paragraph B. NOTICE OF POTENTIAL CLAIM, that has become a "claim" during the "policy period".

E. "Claim expenses" means:

1. Fees charged by an attorney designated by:
 - (a) Us; or
 - (b) The "insured" with our prior written consent which shall not be unreasonably withheld, delayed or denied, provided such fees are "reasonable legal costs"; and
2. All other fees, costs and expenses resulting from the adjustment, defense, settlement and appeal of a "claim" if incurred by us, or by or on behalf of the "insured" with our written consent which shall not be unreasonably withheld, delayed or denied, including "crisis management expenses" in connection with a "claim" agreed to by us, interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay (including an offer of judgment), or deposited in court the amount available for the judgment under the policy.

"Claim expenses" does not include "insured compensation expenses" pursuant to SUPPLEMENTARY PAYMENTS (Section II.) paragraph D. INSURED COMPENSATION EXPENSES.

F. "Cleanup" means the investigation, removal, remediation (including associated monitoring), neutralization or immobilization of contaminated soil, surface water, groundwater, or other contamination resulting in "cleanup costs".

G. "Cleanup costs" means:

1. Reasonable and necessary costs, charges and expenses incurred for "cleanup":
 - (a) To the extent required by "governmental authority"; or
 - (b) That have actually been incurred by the government or any political subdivision of the United States of America or any state there of or by third parties.
2. Reasonable and necessary costs, charges and expenses to repair, replace or rebuild real property or improvements damaged in the course of "cleanup" to substantially the same condition immediately prior to any such damage, but excluding any:
 - (a) Damage caused by the underlying "pollution event"; or
 - (b) Other than "green standards expenses" as described in SUPPLEMENTARY PAYMENTS (Section II.) paragraph C. GREEN STANDARDS EXPENSES APPLICABLE TO COVERAGE A ONLY, any costs, charges or expenses for improvements or betterments, including, but not limited to, those arising from compliance with any law that was not applicable to (including by operation of any grandfather provision contained in any such law) or was not enforced against the property before it was so damaged; and
3. "Claim expenses" in connection with a "claim" for "cleanup costs"; provided however, "claim expenses" shall not be considered part of the definition of "cleanup costs" to the extent of coverage provided for Financial Assurance indicated in a Schedule of Covered Locations (Financial Assurance) endorsement attached to the policy; and
4. Civil fines and civil penalties and punitive, exemplary or multiple damages to the extent insurable by law in connection with a "claim" for "cleanup costs"; and
5. With respect to "discovery", only those "reasonable legal costs" incurred with our prior written consent which shall not be unreasonably withheld, delayed or denied.

"Cleanup costs" do not include "loss" for "property damage" except as provided in subparagraph 2. above, or "natural resource damages".

- H. "Covered location" means the property(ies) listed in a Schedule of Covered Locations endorsement and any amendments endorsed onto the policy.
- I. "Covered operations" means those activities or operations described in the Application and any supporting documentation provided to us by the "named insured" in the application process or in an endorsement attached to the policy that are being conducted by or on behalf of the "named insured" on or after any applicable "retroactive date" for a third party at a "job site". "Covered operations" only apply for the period of time that the "named insured" or a third party acting on its behalf is physically performing "covered operations" at a "job site". "Covered operations" does not include:
1. The "transportation" or the movement of any material beyond the boundaries of a "job site"; and
 2. Professional services performed by or rendered by or on behalf of the "insured", including but not limited to, recommendations, opinions, or strategies, rendered for architectural, consulting or engineering work, such as drawings, designs, maps, reports, surveys, change orders, plan specifications, assessment work, remedy selections, site maintenance equipment selection, and supervisory, inspection or engineering service.
- J. "Crisis management expense" means reasonable and necessary costs, charges, expenses and fees that are incurred by the "insured" with our consent which shall not be unreasonably withheld, delayed or denied:
1. To retain a public relations or crisis management firm with our consent which shall not be unreasonably withheld, delayed or denied to help maintain or restore public confidence in the "named insured";
 2. For essential emergency travel expenses incurred by the "named insured's" principals, partners, officers, directors, employees, members or managers;
 3. For rental of temporary staging or meeting space necessitated by the unavailability of the "named insured's" space as a result of the "pollution event"; and
 4. For any other services or activities for which we have given our prior written consent which shall not be unreasonably withheld, delayed or denied.
- K. "Delimitation date" means the date set forth in a Schedule of Covered Locations endorsement or Schedule of Non Owned Locations endorsement, as applicable, and is the date that indicates whether on, after or before a "pollution event" must first commence.
- L. "Discovered" or "discovery" means discovery by a "responsible insured" of a "pollution event" in concentrations or at levels that exceed allowable levels or concentrations established under "governmental authority".
- M. "Emergency expenses" means costs incurred in the investigation, removal, remediation (including associated monitoring), neutralization or immobilization of contaminated soil, surface water, groundwater, or other contamination that is necessary to avoid an actual imminent and substantial endangerment to the public health or welfare or the environment, but only to the extent that such costs are reasonably necessary to prevent or mitigate "cleanup costs", "loss", or "emergency expenses" includes the reasonable and necessary costs to evacuate affected individuals.
- N. "Existing pollution event" means a "pollution event" that commenced on or after any applicable "retroactive date" and prior to the "delimitation date." Coverage for an "existing pollution event" shall apply to the extent it is indicated as provided in Item 5. of the Declarations.
- O. "First named insured" means the person or entity set forth in Item 1. of the Declarations.
- P. "Fungus" or "fungi" means any:
1. Form or type of mold, mushroom or mildew;
 2. Other fungal structure; and
 3. Volatile organic compounds, mycotoxins, allergenic proteins or other substances or gases produced by or arising out of any mold, mushroom, mildew, fungal structure or "spore(s)".
- Q. "Governmental authority" means federal, state or local statutes, regulations, ordinances or orders applicable to "pollution events" including:

1. Those federal, state or local statutes, regulations, ordinances or orders applicable to any licensed professional authorized pursuant to state law to oversee remediation; and/or
2. Requirements to satisfy a "voluntary cleanup program".

Provided further that for the purpose of "microbial substances" and in the absence of applicable "governmental authority", "governmental authority" also includes a written determination by a "certified industrial hygienist" in accordance with all applicable professional standards or to the extent required in writing by the United States Center for Disease Control or local health department with jurisdiction over the "microbial substances".

- R. "Green standards expenses" mean the increase in costs for following standards, products, methods, and processes for improving the environment, increasing energy efficiency, and enhancing safety and property protection pursuant to the following guidance, requirements and codes:
1. LEED® Green Building Rating System™ of the U.S. Green Building Council;
 2. Green Globes™ Assessment and Rating System;
 3. ENERGY STAR®;
 4. National Fire Protection Association codes, Underwriter Laboratories standards, or other local or international codes; and
 5. As further described in a Green Standards Expenses Proof Of Loss Endorsement if attached to this policy.
- S. "Green remediation expenses" mean the increase in costs attributable to apply green techniques which operate to minimize waste generation, reduce energy consumption, or conserve natural resources in the execution of a reasonable and necessary "cleanup" for which we have provided our consent which shall not be unreasonably withheld, delayed or denied and as further described in a Green Remediation Proof of Loss Endorsement if attached to this policy.
- T. "Insured" means:
1. The "named insured";
 2. Any current or former principal, partner, officer, director, employee, member or manager (in the case of a limited liability company) or leased personnel of a "named insured", while acting within the scope of their employment or written agreement with such "named insured";
 3. Any entity that has entered into a note, mortgage or deed of trust with the "named insured" for which the "covered location" serves as collateral and for which such entity obtains a lien or other security interest in the "covered location" but only to the extent of a "claim" made against such entity; and
 4. Any other entity endorsed onto the policy as an additional "insured".
- U. "Insured compensation expenses" means expenses for compensating an "insured's" principals, partners, officers, directors, employees, members or managers for personally attending any meetings, hearings or depositions at our request up to \$500 per day.
- V. "Insured contract" means a written contract or agreement listed in a Schedule of Insured Contracts endorsement attached to this policy, if any.
- W. "Interruption expenses" means "loss of business income" and/or "loss of rental income" at the "covered location" where "cleanup costs" are covered under the policy sustained by the "named insured" during the "period of indemnity." Coverage for "interruption expenses" shall apply to the extent it is indicated as provided in Item 5. of the Declarations.
- X. "Job site" means a location that is neither owned, leased nor rented by an "insured" at which an "insured" is performing "covered operations".
- Y. "Loss" means:
1. Compensatory damages, whether awarded by a court in a judgment or paid in settlement for:
 - (a) "Bodily injury" including costs for medical monitoring for a person but only when such medical monitoring is a direct result of physical injury to such person;

- (b) "Property damage" including diminution in property value and stigma damage to property, but only when such diminution in value or stigma damage is a direct result of physical injury to such property;
2. "Natural resource damages";
 3. Civil fines and civil penalties and punitive, exemplary or multiple damages to the extent insurable by law in connection with a "claim" for "bodily injury", "property damage" or "natural resource damages"; and
 4. "Claim expenses"
- Z. "Loss of business income" means:
1. The sum of:
 - (a) Total net sales value of goods that could not be produced during the "period of indemnity";
 - (b) Total net sales of merchandise that could not be sold during the "period of indemnity"; and
 - (c) Other income derived from "business operations";
 2. Less the:
 - (a) Actual cost of raw stock from which production is derived;
 - (b) Actual cost of supplies which constitute the materials consumed directly in conversion of raw stock into "finished stock" or in supplying the services sold by the "insured";
 - (c) Sale price of merchandise sold, including the actual cost of related packaging materials;
 - (d) Services purchased from outsiders (not employees of the "insured") for resale which do not continue under contract; and
 - (e) Remaining salvage value of any property obtained for temporary use during the "suspension of operations" that remains in use after the "business operations" have resumed;
 3. In determining "loss of business income", we will consider:
 - (a) The income experience before the "suspension of operations" and the probable future experience had no "suspension of operations" occurred, taking account of seasonal patterns, trends, variations, and/or special circumstances which would have affected the "business operations" if the "suspension of operations" had not occurred;
 - (b) Continuation of normal charges and expenses, including payroll, to the extent necessary to resume the "named insured's" "business operations" with the same quality of service which existed immediately preceding the "suspension of operations";
 - (c) Suspension or reduction of any obligation for labor costs, charges and expenses during the "period of indemnity" and liquidated damages and any other compensation the "named insured" is entitled to receive, whether collectible or not;
 - (d) Appropriate deductions to the extent the "named insured" can resume "business operations", in whole or in part, by using damaged or undamaged property (including stock, raw, in process or "finished stock") at the "covered location" or elsewhere; and
 - (e) Whether the "suspension of operations" results in part from any other cause other than a "pollution event" which is covered under the policy. In such case, our obligation is limited to that portion of "loss of business income" we reasonably deem attributable to the "pollution event" provided coverage under the policy.

"Finished stock" as used herein shall mean stock which the "named insured" has manufactured and also includes whiskey and other alcoholic and non-alcoholic products being aged. "Finished stock" does not include stock the "named insured" has manufactured which is held for sale on the premises of any "covered location"; and
 4. "Loss of business income" also includes expenses necessarily and reasonably incurred to reduce "loss of business income" to the extent such expenses do not exceed the amount of "loss of business income" that otherwise would have been payable.

AA. "Loss of rental income" means:

1. The sum of the following:
 - (a) The total anticipated rental income of that portion of the "covered location" as described in the written lease(s) that the "named insured" would have received had there been no "suspension of operations" and if the written lease(s) were executed and in force when the "pollution event" is first "discovered" or the "claim" is made against the "named insured" at the "covered location", as provided by such "named insured", less any necessary operating expenses;
 - (b) The amount of charges to the "named insured" which are the legal obligation of the existing "tenant" whose occupancy is suspended and which would otherwise be the "named insured's" obligation; and
 - (c) The fair rental value of any portion of the "covered location" which, but for the "suspension of operations", would have been occupied by the "named insured";
2. Less rental income actually received from any partial or complete rental of that portion of the "covered location" described in the written lease(s); and
3. In determining "loss of rental income":
 - (a) The "named insured" shall have a duty to provide alternative leased premises at the "covered location" to any "tenant" who experiences a "suspension of operations" within a reasonable time thereafter. "Loss of rental income" shall not include any amount of rental income that is lost because alternative leased premises are not provided by the "named insured", except to the extent that the fair market value of the alternative premises provided is less than the premises originally leased by the "tenant"; and
 - (b) If the "suspension of operations" results in part from any other cause other than a "pollution event" that is covered under the policy, our obligation is limited to that portion of "loss of rental income" we reasonably deem attributable to the "pollution event" that is covered under this policy.

"Loss of rental income" includes expenses reasonably and necessarily incurred to reduce "loss of rental income" including, but not limited to, expenses incurred in relocating "tenants", to the extent such expenses do not exceed the amount of "loss of rental income" that otherwise would have been payable had there been no "suspension of operations".

BB. "Microbial substance" means any substance that reproduces through release of "spore(s)" or the splitting of cells including but not limited to bacteria (including legionella pneumophila), viruses, "fungus(i)", "spore(s)", protozoa, chlamydiae, or rickettsiae, whether or not the substance is living.

CC. "Named insured" means:

1. The "first named insured";
2. Any corporations, partnerships, companies or other entities that exist at the effective date of the policy or may hereafter exist during the "policy period" and in which the "first named insured" has at least a 50% ownership interest solely with respect to liability arising out of the ownership, operation, maintenance or use of a "covered location"; and
3. Any other person or entity listed in a Named Insured endorsement attached to the policy, if any.

DD. "Natural resource damages" means the reasonable and necessary costs for the injury to, destruction of, loss of use and loss of value (and the cost for assessment and replacement of such injury, destruction or loss required by law to restore the natural resources to their baseline condition as they existed prior to the "pollution event") of land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States of America (including the resources of the fishery conservation zone established by the Magnuson Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), any State or local government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

"Natural resource damages" does not include "cleanup costs" or "property damage".

EE. "New pollution event" means a "pollution event" that first commences on or after the "delimitation date" and prior to the end of the "policy period". Coverage for a "new pollution event" shall apply to the extent it is indicated as provided in Item 5. of the Declarations.

FF. "Non-owned location" means a location that is neither partially nor wholly owned nor operated by an "insured" or any subsidiary or affiliate company of an "insured" and includes:

1. Location(s) listed on a Schedule of Non-Owned Locations endorsement which may include locations(s) the "named insured" has divested its interest or in the past has leased, rented or occupied; or
2. Waste treatment, waste storage or waste disposal locations listed on a Schedule of Non Owned Locations endorsement and, if not listed on a Schedule of Non-Owned Locations endorsement, such waste treatment, waste storage or waste disposal location that is:
 - (a) Licensed and/or certified by "governmental authority" to accept waste generated from or transferred through a "covered location"; and
 - (b) Not included nor proposed to be included on the National Priorities List (NPL) or any state equivalent at the time of any treatment, recycling, reclamation, storage or disposal of any waste.

GG. "Period of indemnity" means the period of time set forth in Item 6. of the Declarations which commences at the conclusion of the "waiting period". The "period of indemnity" shall end the earlier of:

1. The expiration of the corresponding period of days set forth in Item 6. of the Declarations; or
2. The date on which the "cleanup" is complete and the "named insured" can resume "business operations", or "tenants" can have physical access to the leased premises at the "covered location" and resume their tenancy, excluding any period of time attributable to:
 - (a) The enforcement of any ordinance or law regulating the construction, use or repair, or requiring the demolition, of any property; or
 - (b) Work stoppage, boycott or strike by employees of the "insured" or others; or
3. Exhaustion of the applicable limits of liability.

The "period of indemnity" shall not be limited by the expiration date of the policy.

HH. "Policy period" means the period set forth in Item 2. of the Declarations or:

1. Any shorter period arising from:
 - (a) Cancellation or termination of this policy; or
 - (b) With respect to a specific "covered location" or "non-owned location" the deletion of such "covered location" or "non-owned location" from this policy by us upon the "first named insured's" written request; or
2. As otherwise expressly provided in an endorsement.

II. "Pollution event(s)" means the discharge, dispersal, release, seepage, migration or escape of any solid, liquid, gaseous or thermal irritant, contaminant or pollutant, including smoke, vapor, soot, fumes, acids, alkalis, toxic or hazardous substances, electromagnetic fields, chemicals, waste (including materials to be recycled, reconditioned or reclaimed, and/or medical, infectious and pathological waste), radioactive waste and materials, asbestos, and lead into or upon land, or any structure on land, the atmosphere, or any watercourse or body of water including groundwater, in concentrations at levels in excess of those naturally present in the environment.

"Pollution event" includes:

1. The illicit abandonment of any irritant, contaminant or pollutant at a "covered location" provided that such abandonment was committed by parties other than any "insured" and without the knowledge of any "responsible insured"; and
2. The presence of any "fungus(i)", "spore(s)" or legionella pneumophila on, at or within any buildings or other structures at a "covered location".

However, "pollution event" does not include any exposure to infected humans or animals, or contact with bodily fluids or materials of infected humans or animals.

JJ. "Potential claim" means a "pollution event" that is reasonably likely to result in a "claim" to which this insurance applies.

KK. "Property damage" means:

1. Physical injury to or destruction of tangible property of parties other than an "insured" and including the resulting loss of use thereof; or
2. Loss of use of tangible property of parties other than an "insured" that has not been physically injured or destroyed.

"Property damage" does not include "cleanup costs" or "natural resource damages".

LL. "Reasonable legal costs" means attorneys' fees, costs, charges, and all other litigation expenses in connection with the defense of a "claim" or negotiation of cleanup standards in connection with "discovery", limited to rates we actually pay to counsel we retain in the ordinary course of business in the defense of similar "claims" or negotiation of similar matters in the community where the "claim" arose or is being defended or the "discovery" was made; provided that we shall pay such rates and amounts only to the extent that and so long as they are evidenced to be reasonable and necessary attorney fees, costs, charges, and expenses. We may exercise the right to require that such counsel have certain minimum qualifications with respect to legal competency including experience in defending "claims" or negotiating in connection with a "discovery" similar to the one pending against or involving an "insured" and to require such counsel to have errors and omissions insurance coverage. It is a condition precedent to our obligation to pay any "reasonable legal costs" that an "insured" agree and be responsible for counsel responding to our requests for information regarding the "claim", "discovery" or any other matter in a timely and comprehensive manner.

MM. "Responsible insured" means an "insured's" principal, partner, director, officer, manager or member (in the case of a limited liability company), or employee with responsibility for compliance, environmental or legal affairs, or risk management, or any manager or supervisor responsible for the "insured's" "covered operations" or "transportation".

NN. "Retroactive date" means the earliest date that an applicable "pollution event", "transportation", or "covered operation" can commence for coverage to be provided under the policy. A "retroactive date", if applicable, will be set forth for a specific "covered location" in a Schedule of Covered Locations endorsement or with respect to an event of "transportation", "covered operation" or "non-owned location" coverage, in an endorsement attached to the policy, if any. If no "retroactive date" is provided then a "retroactive date" shall not apply.

OO. "Spore" or "spore(s)" means any reproductive body produced by or arising out of any "fungus" or "fungi".

PP. "Suit" means a civil proceeding, an arbitration proceeding or any other alternative dispute resolution against the "Insured" in which "loss" and/or "cleanup costs" is claimed and to which the "insured" must submit or does submit with our consent.

QQ. "Suspension of operations" means the necessary partial or complete suspension of "business operations" at the "covered location" during the "policy period", or the necessary suspension of an existing "tenant's" right to physical access or enjoyment of substantially all rights to leased premises at a "covered location" during the "policy period", caused by "cleanup" covered under the policy. "Suspension of operations" does not include restricted access that hinders, but does not prevent, a "tenant" from accessing leased premises.

RR. "Tenant", "tenants" or "tenant's" means the entity or individual who has leased premises at a "covered location" as described in a written lease agreement with the "named insured" where that written lease is in effect when the "pollution event" is first "discovered" at a "covered location".

SS. "Termination of coverage" means, for the purpose of EXTENDED REPORTING PERIODS, (Section VII.) the effective date of:

1. Cancellation or nonrenewal of this policy by the "first named insured", or cancellation or nonrenewal of this policy by us other than for fraud or material misrepresentation, material change in use or a material change in operations under any coverage part which is different from the uses or operations identified in writing to us during the underwriting process, in the Application or in an endorsement to the policy and which materially increases a risk covered hereunder, or nonpayment of premium; or
2. Deletion of a "covered location" or "non-owned location" from this policy by us upon a "first named insured's" written request but only with respect to such "covered location" or "non-owned location".

TT. "Transportation" means the movement on or after any applicable "retroactive date" of goods, products or waste, including oil, petroleum, pesticide products, and materials to be recycled, reconditioned or reclaimed to or from a

"covered location", "non-owned location" or "job site" by auto where "covered operations" have been or are being performed by the "named insured", or a third party properly licensed to transport such goods, products or waste acting on behalf of the "named insured" pursuant to written contract commencing with the loading of such goods, products or waste onto an auto and ending when the unloading of the goods, products or waste is complete.

UU. "Underground storage tank" means any tank in existence at a "covered location" as of the inception date of the policy or installed thereafter, including associated underground piping connected thereto, that has at least ten (10) percent of its volume, or any associated piping, below the ground.

VV. "Voluntary cleanup program" means a federal, state or municipal program of the United States enacted pursuant to statutes or regulations which provide for a mechanism for the written approval of, or authorization to conduct, voluntary remedial action for the "cleanup" of a "pollution event" that exceed allowable levels or concentrations established under "governmental authority".

WW. "Waiting period" means the corresponding number of days in Item 7. of the Declarations beginning with the date the "named insured" provides written notice to us of a "suspension of operations".

VI. EXCLUSIONS

This insurance does not apply to "claims", "cleanup costs", "loss", "interruption expenses", "emergency expenses", "claim expenses" or Supplementary Payments based upon, arising out of, or to the extent comprised of:

A. ABATEMENT AND CONTROL – ASBESTOS

Any activities to remove, or prevent, abate, avoid, or control the release of asbestos or asbestos-containing material which are part of or applied to any fixtures, buildings or improvements including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

B. ABATEMENT AND CONTROL – LEAD BASED PAINT

Any activities to remove, or prevent, abate, avoid, or control the release of lead-based paint which are part of or applied to any fixtures, buildings or improvements including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

C. FINANCIAL ASSURANCE LIABILITY

Any liability or responsibility pursuant to a Financial Assurance law, rule or regulation, including closure and/or post closure care, except to the extent Financial Assurance is specifically provided for in an endorsement to the policy.

D. CONTRACTUAL LIABILITY

Any liability assumed by an "insured" under any contract or agreement. However, this exclusion does not apply to liability:

1. For "cleanup costs" or "loss" that would have attached to an "insured" by operation of law in the absence of such contract or agreement; or
2. That is specifically assumed in an "insured contract" but only to the extent that any indemnity or contractual liability assumed thereby is liability covered under, and not otherwise excluded from coverage by, this policy.

E. CRIMINAL FINES OR CRIMINAL PENALTIES

Any criminal fines or criminal penalties.

F. DAMAGE TO INSURED'S WORK

"Property damage" to work performed by, or on behalf of, the "insured" arising out of the "insured's" "covered operations".

G. DIVESTED, ABANDONED OR CONDEMNED PROPERTY

Any "pollution event" that first commences on or after the "covered location" is sold, given away or abandoned by the "insured" or condemned during the "policy period" unless such location is a divested property listed as a "non-owned location" at the time of the "pollution event" on a Schedule of Non-Owned Locations endorsement.

H. KNOWN POLLUTION EVENT

Any "pollution event" known to a "responsible insured" prior to the effective date of the policy including any byproduct or breakdown products of the irritant, contaminant or pollutant and shall include the entire quantity and geographic extent of any "pollution event". However, this exclusion shall not apply to the extent that:

1. You disclose such known "pollution event" in writing to us prior to the effective date of the policy; and
2. We issue a Known Pollution Event Schedule endorsement and/or Disclosed Documents endorsement to the policy indicating coverage for such "pollution event" either:
 - a. At the time of issuance of the policy; or
 - b. During the "policy period" at your request, if we accept a written No Further Action determination or other equivalent confirmation from the governmental agency or body having jurisdiction over the "pollution event" that no further action is required with respect to such "pollution event".

I. KNOWN UNDERGROUND STORAGE TANKS

Any "underground storage tank", whether active, inactive or abandoned, known to any "responsible insured"; however this exclusion does not apply to any:

1. "Underground storage tank" that is listed on a Scheduled Underground Storage Tank endorsement to this policy or a Known Pollution Event Schedule endorsement to the policy, if any;
2. "Underground storage tank" that was removed prior to the inception date of this policy;
3. "Underground storage tank" that was abandoned in place and closed pursuant to "governmental authority";
4. Septic tank;
5. Oil water separator; or
6. Storage tank that is situated in an underground area such as a basement, cellar, mine shaft or tunnel if such storage tank is situated upon or above the surface of the floor.

J. MATERIAL CHANGE IN USE

Any material change in the use of a "covered location" from that which is indicated in a Schedule of Covered Locations endorsement or any amendment thereto attached to the policy.

K. MAINTENANCE, UPGRADES, IMPROVEMENTS OR INSTALLATIONS

Costs, charges or expenses for maintenance, upgrade, repair or improvement of, or installation of any preventative measures to, any property or processes on, at, within or under a "covered location", "non-owned location" or "job site" even if such maintenance, upgrade, improvement, repair or installation is required:

1. By "governmental authority"; or
2. As a result of "cleanup costs" or "loss" otherwise covered under the policy except to the extent of coverage provided for "cleanup costs" in DEFINITIONS (Section V.) paragraph G. 2 only.

L. MICROBIAL SUBSTANCE

Any "microbial substance", with the exception of "fungus", "spore(s)" and legionella pneumophila.

M. PRODUCTS LIABILITY

Goods or products outside the boundaries of the "covered location", "non owned location" or "job site". However, this exclusion shall not apply to a "pollution event" which occurs during:

1. The course of "transportation" under INSURING AGREEMENTS (Section I.) Coverage D.

N. RELATED PERSONS AND ORGANIZATIONS

Any "claim" made:

1. By an "insured" against any other "insured", however this provision shall not apply to any indemnification given by a "named insured" to another "insured" in an "insured contract" or to a "claim" made against a "named insured" by an additional "insured"; or
2. Against an "insured" by an organization or individual:

- (a) That wholly or partially controls, owns, operates or manages an "insured"; or
- (b) That is wholly or partially controlled, owned, operated or managed by the "insured".

O. WAR

1. War, including undeclared or civil war;
2. Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
3. Insurrection, rebellion, revolution or usurped power, or action taken by any government, sovereign or other authority in hindering or defending against any of these.

P. WORKERS' COMPENSATION AND INJURY AS A CONSEQUENCE OF EMPLOYMENT

1. Any obligation of the "insured" that is owed, in whole or in part, under a workers compensation, disability benefits, unemployment compensation or any similar law;
2. Injury to any "insured" if such injury occurs during and in the course of employment;
3. Injury to the spouse, child, parent, brother or sister of any "insured" as a consequence of such "insured's" employment; or
4. Any obligation of an "insured" for indemnity or contribution to another because of "loss" arising out of such injury in the course of employment.

Q. WRONGFUL ACTS OR DELIBERATE NON-COMPLIANCE

Any:

1. Knowingly wrongful act, or
2. Any dishonest, fraudulent or malicious act, error or omission, or those of a knowingly wrongful nature or the intentional, willful or deliberate non-compliance with any statute, regulation, ordinance, administrative complaint, notice of violation, notice letter, executive order, or instruction of any governmental agency or body by or at the direction of the "insured" except that this exclusion will not apply to an "insured" who did not commit, participate in, or have knowledge of any of the acts described.

VII. EXTENDED REPORTING PERIODS

A. PROVISIONAL EXTENDED REPORTING PERIOD - RENEWAL OF COVERAGE

Solely with respect to any INSURING AGREEMENTS (Section I.) Coverage A through F listed as provided in Item 5. of the Declarations and provided that the "first named insured" has renewed this policy, the "insured" shall be entitled to a provisional extended reporting period of ninety (90) days (at no additional charge) after the expiration of this "policy period" in which to: report a "claim" that is first made against the "insured", or a "discovery" that is first made by a "responsible insured" during the final thirty (30) days of the "policy period", or report a "suspension of operations", that began during the final thirty (30) days of the "policy period".

B. AUTOMATIC EXTENDED REPORTING PERIOD - TERMINATION OF COVERAGE

Solely with respect to any INSURING AGREEMENTS (Section I.) Coverage A through F listed as provided in Item 5. of the Declarations, the "insured" shall be entitled to an automatic extended reporting period of ninety (90) days (at no additional charge) upon "termination of coverage" in which to: report a "claim" that is first made against the "insured", or a "discovery" that is first made by a "responsible insured" during the "policy period", or report a "suspension of operations", that began during the "policy period".

C. OPTIONAL EXTENDED REPORTING PERIOD - TERMINATION OF COVERAGE

Solely with respect to any INSURING AGREEMENTS (Section I.) Coverage A through E listed as provided in Item 5. of the Declarations, the "first named insured" shall be entitled to purchase an optional extended reporting period of up to three (3) years commencing upon "termination of coverage" (not applicable to Coverage A - Cleanup Costs, paragraph 1. for Discovery) for an "insured" to report any "claim" first made against an "insured" during the "policy period" or such optional extended reporting period, provided that the "first named insured":

1. Has not purchased any other insurance to replace coverage provided by this policy and which applies to a "claim" covered hereunder;

2. Makes a written request for such optional extended reporting period which we receive within thirty (30) days following the effective date of the "termination of coverage"; and
3. Pays the additional premium when due. The charge for such optional extended reporting period shall not exceed one hundred percent (100%) of the total premium for the policy as set forth in Item 8. of the Declarations plus any additional premium described in an endorsement to the policy, if any.

At the commencement of any such optional extended reporting period, the entire premium shall be considered fully earned, and in the event the optional extended reporting period is terminated before its expiration for any reason, we shall not return any portion of the premium paid. If such additional premium is paid when due, the optional extended reporting period may not be canceled by us, provided that all other terms and conditions of the policy are met.

- D. Any "claim", "discovery" or "suspension of operations" reported to us in writing during the optional extended reporting period, if purchased, the automatic extended reporting period, or the provisional extended reporting period will be deemed to have been made on the last day of the "policy period" and will be subject to the remaining Limits of Liability for the "policy period", if any, provided that:
1. The "pollution event" first commenced on or after any applicable "retroactive date", or on, before or after any applicable "delimitation date", and before the end of this "policy period", and
 2. The "claim" is otherwise covered under the terms and conditions of this policy.

VIII. LIMITS OF LIABILITY AND DEDUCTIBLE

A. EACH POLLUTION EVENT LIMIT

Subject to the Aggregate Policy Limit set forth in Item 3. of the Declarations, the most we will pay for all "cleanup costs", "loss", "interruption expenses", and "emergency expenses", including applicable "claim expenses" arising out of any one "pollution event", including the same, continuous or repeated "pollution event" or series of related "pollution events" is the Each Pollution Event Limit set forth in Item 3. of the Declarations.

We shall not be obligated to pay any "cleanup costs", "loss", "interruption expenses" and "emergency expenses", including applicable "claim expenses" or undertake or continue the defense of any "claim", pending or future, after the Each Pollution Event Limit has been tendered into court or exhausted by payments for "cleanup costs", "loss", "interruption expenses" and "emergency expenses" including applicable "claim expenses".

B. AGGREGATE POLICY LIMIT

The most we will pay for all "cleanup costs", "loss", "interruption expenses" and "emergency expenses" including applicable "claim expenses" to which this insurance applies is the Aggregate Policy Limit set forth in Item 3. of the Declarations. If the Aggregate Policy Limit is exhausted, we shall not be liable for "cleanup costs", "loss", "interruption expenses", "emergency expenses" including applicable "claim expenses" or Supplementary Payments which would otherwise be covered under this policy.

C. CRISIS MANAGEMENT EXPENSES LIMIT

The most we will pay for all "crisis management expenses" under SUPPLEMENTARY PAYMENTS (Section II.) paragraph A. is the Crisis Management Expenses Limit set forth in Item 3. of the Declarations. The Crisis Management Expenses Limit does not reduce any other Limit of Liability and any applicable Deductible shall not apply to the Crisis Management Expenses Limit. If the Aggregate Policy Limit is exhausted we shall not be liable for "crisis management expenses".

D. GREEN REMEDIATION EXPENSES LIMIT

The most we will pay for all "green remediation expenses" under SUPPLEMENTARY PAYMENTS (Section II.) paragraph B. is the Green Remediation Expenses Limit set forth in Item 3. of the Declarations. The Green Remediation Expenses Limit does not reduce any other Limit of Liability. If the Aggregate Policy Limit is exhausted we shall not be liable for "green remediation expenses".

E. GREEN STANDARDS EXPENSES LIMIT

The most we will pay for all "green standards expenses" under SUPPLEMENTARY PAYMENTS (Section II.) paragraph C. is the Green Standards Expenses Limit set forth in Item 3. of the Declarations. The Green Standards Expenses Limit does not reduce any other Limit of Liability. If the Aggregate Policy Limit is exhausted we shall not be liable for "green standards expenses".

F. INSURED COMPENSATION EXPENSES LIMIT

The most we will pay for "insured compensation expenses" under SUPPLEMENTARY PAYMENTS (Section II.) paragraph D. is the Insured Compensation Expenses Limit set forth in Item 3. of the Declarations. The Insured Compensation Expenses Limit does not reduce any other Limit of Liability. If the Aggregate Policy Limit is exhausted we shall not be liable for "insured compensation expenses".

G. SUB-LIMIT OF LIABILITY AND AGGREGATE SUB-LIMIT

If a Sub-Limit of Liability is applicable as indicated in a Sub-Limit Schedule set forth in an endorsement to this policy, then, subject to the Each Pollution Event Limit and Aggregate Policy Limit set forth in Item 3. of the Declarations and the corresponding Aggregate Sub-Limit, such Sub-Limit of Liability is the most we will pay for all coverage subject to the Sub-Limit of Liability under this policy. The corresponding Aggregate Sub-Limit is the most we will pay for all coverage subject to the Sub-Limit of Liability.

The Sub-Limit of Liability is not in addition to and will reduce the Each Pollution Event Limit and the Aggregate Policy Limit set forth in Item 3. of the Declarations. If the Each Pollution Event Limit and/or Aggregate Policy Limit has been reduced to an amount which is less than the Sub-Limit of Liability set forth in an endorsement, the lesser of the remaining Aggregate Policy Limit or remaining Each Pollution Event Limit is the most that will be available for payment of coverage, subject to the Sub-Limit of Liability.

H. DEDUCTIBLE

We will pay "cleanup costs", "loss", "interruption expenses", "emergency expenses" and applicable "claim expenses" to which this insurance applies in excess of the Deductible amount set forth in Item 4. of the Declarations or in any other endorsement to this policy, if any. Any applicable Deductible under the policy shall not apply to Supplementary Payments provided coverage under SUPPLEMENTARY PAYMENTS (Section II.). The Deductible amount is the "first named insured's" obligation and applies to all "cleanup costs", "loss", "interruption expenses", "emergency expenses" and applicable "claim expenses" arising from the same, continuous or repeated "pollution event" or series of related "pollution events". The Deductible amount does not reduce the Limits of Liability, except the applicable Deductible amount shall reduce the applicable Limits if: (i) we are required to pay such Deductible by specified Financial Assurance law, rule or regulation indicated in the Schedule of Covered Locations (Financial Assurance) endorsement, if attached to the policy; or (ii) if we choose to advance payment for "cleanup costs", "loss", "interruption expenses", "emergency expenses" and applicable "claim expenses" before the "first named insured" has paid the Deductible amounts. In the event that we advance payment for such "cleanup costs", "loss", "interruption expenses" "emergency expenses" and applicable "claim expenses" within the Deductible, the "first named insured" shall promptly reimburse us for such amounts. Upon our receipt of such reimbursement amounts, and after the expenses we incurred in collecting such Deductible are deducted, any reduced Limit shall be restored to the extent of such reimbursement amount paid by or on behalf of the "named insured" and received by us. If the "first named insured" fails to reimburse us then any reduced limit shall not be restored.

If an "insured" agrees with us to use non-binding mediation to resolve a "claim" for which a defense has been provided and such "claim" is resolved thereby, the Deductible only shall be reduced by 50% for that "claim" only, subject to a maximum reduction of \$25,000.

I. MULTIPLE INSURED OR CLAIMANTS, MULTIPLE COVERAGES AND MULTIPLE POLICY PERIODS

1. MULTIPLE INSURED OR CLAIMANTS

The inclusion of more than one "insured" in the "discovery" of a "pollution event" or in the making of a "claim" regarding the same "pollution event" shall not increase the Limits of Liability set forth in Item 3. of the Declarations.

2. MULTIPLE COVERAGES

If the same, continuous or repeated "pollution event" or series of related "pollution events" is covered under more than one insuring agreement specifically listed as provided in Item 5. of the Declarations, only the highest single Each Pollution Event Limit shall apply to all "cleanup costs", "loss", "interruption expenses" and "emergency expenses" and applicable "claim expenses" arising from such "pollution event" or series of related "pollution events". Furthermore, if more than one respective Deductible amount is applicable, only the highest respective Deductible amount shall apply to all "cleanup costs", "loss", "interruption expenses",

"emergency expenses" and applicable "claim expenses" arising from such "pollution event" or series of related "pollution events".

Subject to the above paragraph, if a "claim" is covered under this policy and any other liability policy of insurance issued by us or an affiliate to the same "named insured", including an obligation to provide a defense and pay the costs of legal defense, the total limit of liability for such "claim" under all applicable policies issued by us or an affiliate shall be the highest limit of liability available under any of the applicable policies.

3. MULTIPLE POLICY PERIODS

If we or an affiliate have issued pollution liability coverage to the "named insured" for the "covered location" in one or more consecutive and uninterrupted policy periods, and:

- (a) A "pollution event" or series of related "pollution events" that is first reported to us in accordance with all of the terms and conditions of this policy takes place over the "policy period" and one or more subsequent policy periods; and/or
- (b) A "claim" for "cleanup costs", "loss", "interruption expenses", "emergency expenses" or "supplementary payments" is first made against the "insured" during the "policy period" and reported to us in accordance with all of the terms and conditions of this policy; and/or
- (c) A "pollution event" is first "discovered" during the "policy period" and reported to us in accordance with all of the terms and conditions of this policy;

all "claims", "cleanup costs", "loss", "interruption expenses", "emergency expenses" and applicable "claim expenses" arising out of the same, continuous or repeated "pollution event" or series of related "pollution events" whether reported during the "policy period" or during a subsequent policy period shall be subject to the Limits of Liability and applicable Deductible amount corresponding with the policy in effect when the "claim" or "discovery" was first reported to us subject to the provisions for EXTENDED REPORTING PERIODS (Section VII.).

IX. CLAIM PROVISIONS

A. NOTICE OF DISCOVERY OR CLAIM

In the event of a "discovery" or "claim", the "insured" shall give written notice to us as soon as possible, and within ninety-six (96) hours after any portion of "emergency expenses" or "crisis management expenses" are incurred by an "insured." Such written notice shall contain information sufficient to identify an "insured" and include:

1. The time, place, location, and a detailed explanation of the "pollution event" including, as applicable, the date of "discovery" or the date the "insured" had knowledge of the "claim";
2. The names and addresses of any injured parties and available witnesses;
3. Any and all investigative or engineering reports, data or information about the "pollution event", "cleanup costs", "loss", "emergency expenses" or "crisis management expenses", as applicable;
3. Any and all other relevant information about the "pollution event", "claim", "cleanup costs", "loss", "emergency expenses" or "crisis management expenses" as applicable; and
4. An itemization of "emergency expenses" and "crisis management expenses".

If a "claim" is made against an "insured", the "insured" shall immediately forward to us every demand, notice, summons, complaint, order or other process or legal papers received by an "insured" or its representatives.

B. NOTICE OF POTENTIAL CLAIM

1. If during the "policy period" the "insured" first becomes aware of a "potential claim" for which the "insured" seeks coverage for "emergency expenses" and/or "crisis management expenses" the "insured" must report such "potential claim" to us as soon as possible and in any event within ninety-six (96) hours after any portion of such "emergency expenses" and/or "crisis management expenses" is incurred by an "insured".

The "insured" may report all other "potential claims" as soon as reasonably possible.

2. Notice of "potential claim" reported by the "insured" as described in paragraph 1. shall provide all of the following information:

- (a) The cause of the "pollution event" if known or suspected, including any potential cause;
- (b) The time, place, location, and details of the "pollution event" including how and when the "insured" first became aware of the "potential claim";
- (c) The names and addresses of any actually or potentially injured parties or damaged property, and available witnesses, if and to the extent reasonably available;
- (d) Any and all investigative or engineering reports, data or information about the "potential claim", and any other information regarding "cleanup costs", "loss", "interruption expenses", "emergency expenses" or "crisis management expenses" that may result;
- (e) Any other relevant information about the "potential claim", "cleanup costs", "loss", "interruption expenses", "emergency expenses" or "crisis management expenses"; and
- (f) An itemization of "emergency expenses" and/or "crisis management expenses" to the extent the "insured" is seeking coverage for such costs.

If all of the foregoing information is provided to us in writing during the "policy period" or during an applicable extended reporting period and the "potential claim" subsequently becomes a "claim" made against the "insured" and reported to us during any renewal policy, or any applicable extended reporting period, such "claim" shall be deemed, for the purposes of this insurance, to have been made on the date on which written notice of the "potential claim" was first received by us and shall be subject to the terms, conditions and Limits of Liability applicable to the policy in effect as of such date. With respect to "new pollution events" only, the preceding sentence shall only apply to a "potential claim" that becomes a "claim" within five (5) years after the end of any renewal policy or applicable extended reporting period.

C. NOTICE OF SUSPENSION OF OPERATIONS

In the event of a "suspension of operations" the "named insured" shall:

1. Give written notice to us as soon as possible, including a description of how, when and where the "suspension of operations" occurred, a list of all "tenants" affected, and an itemization of "interruption expenses" as applicable;
2. Keep written records of all expenditures, and copies of all bills, invoices, deeds, leases, contracts and any other sources of information relevant to "interruption expenses" sustained in connection with the "suspension of operations";
3. Send us a signed, sworn proof of "interruption expenses", containing the information we request to investigate the "suspension of operations", within sixty (60) days after our request; and
4. Allow us to examine the "named insured" and any other "insured" under oath and at such times as we may reasonably require, about any matter relating to "interruption expenses", including such "named insured's" or other "insured's" books and records. In the event of an examination, the "named insured's" or other "insured's" answers must be signed.

D. NOTICE TO US

All "claim(s)" and potential "claim(s)" and notices of "discovery" or "suspension of operations" shall be reported in writing to:

Zurich in North America – NY Environmental Claims
P.O. Box 968041
Schaumburg, IL 60196-8041
Fax: (866) 255-2962
Email: usz_zurich_environmental@zurichna.com
Or by phone contact, followed up in writing, to:
The Claim Reporting Center 1 800 987 3373

E. SETTLEMENT

The "insured" shall not settle any "claim" without our written consent which shall not be unreasonably withheld, delayed or denied. If we recommend a settlement, the "insured" shall have the opportunity to concur, such concurrence not to be unreasonably withheld, delayed or denied. If we recommend a settlement that is

acceptable to a claimant for a total amount in excess of the applicable Deductible amount and the "insured" refuses to concur with such settlement, then our liability for "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses" and any applicable Supplementary Payment shall be limited to that portion of the recommended settlement and the "claim expenses" incurred as of the date of the "insured's" refusal, which exceed the Deductible amount and fall within the Limit of Liability.

F. VOLUNTARY PAYMENTS, ADMISSIONS OR ASSUMPTIONS OF LIABILITY

No costs, charges or expenses shall be incurred or paid or liability admitted or assumed by an "insured", other than "emergency expenses" or "crisis management expenses", without our prior written consent, which shall not be unreasonably withheld, delayed or denied.

X. CONDITIONS

A. ASSIGNMENT

Assignment of interest under this policy shall not bind us unless and until our consent is endorsed thereon, which consent shall not be unreasonably withheld, delayed or denied.

B. AUDIT AND INSPECTION

We shall be permitted upon reasonable prior notice to audit the "insured's" books and records at any time during the "policy period" and within three (3) years after the termination of this policy, as far as they relate to the subject matter of the policy and any "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses" or Supplementary Payments for which payment may be made under the policy. We shall also be permitted, upon reasonable prior notice, to inspect, sample and monitor on a continuing basis any "covered location" and operations conducted thereon and any "covered operations". Neither our right to make inspections, sample and monitor, nor the actual undertaking thereof, nor any report thereon shall constitute an undertaking, on behalf of us or others, to determine or warrant that a "covered location" or operation is safe, healthful, conforms to acceptable engineering practice or is in compliance with any law, rule or regulation. We will not manage or exercise control over any "covered location" or operation.

In the event we pay "interruption expenses", we shall have the right but not the obligation to conduct an audit of the "named insured's" records to confirm the amount of "loss of business income" and/or "loss of rental income". In the event that covered "interruption expenses" as determined by the audit are less than or exceed the sum paid by us for such "interruption expenses", the difference between the two amounts shall be paid by or to us as applicable.

C. BANKRUPTCY

Bankruptcy or insolvency of an "insured" or an "insured's" estate will not relieve us of our obligations to an "insured" under this policy nor increase our obligations including, but not limited to, those with respect to any Deductible amount. However, if we have advanced any payment for "cleanup costs", "loss", "interruption expenses", or "emergency expenses" within the Deductible amount pursuant to LIMITS OF LIABILITY AND DEDUCTIBLE (Section VIII.), paragraph J., then any such payments to the extent not reimbursed to us shall reduce the Limits of Liability. Furthermore, this condition shall not impair our ability to assert any defense on behalf of an "insured".

D. CANCELLATION AND NONRENEWAL

This policy may be canceled by the "first named insured" by surrender to us or by mailing to us written notice stating when thereafter cancellation shall be effective.

We may cancel this policy for the following reasons only:

1. Fraud or material misrepresentation;
2. Any "insured's" failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible amount when due;
3. A material change in use or a material change in operations under any coverage which is different from the uses or operations identified in writing to us during the underwriting process, in the Application or in an endorsement to the policy and which materially increases a risk covered hereunder; or
4. Nonpayment of premium.

We shall provide written notice of cancellation to the "first named insured" stating a reason for the cancellation not less than:

1. Ninety (90) days prior to the effective date of cancellation for any "insured's" failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible amount when due, or a material change in use or a material change in operations under any coverage which is different from the uses or operations identified in writing to us during the underwriting process, in the Application or in an endorsement to the policy and which materially increases a risk covered hereunder;
2. Thirty (30) days prior to the effective date of cancellation for fraud or material misrepresentation; and
3. Ten (10) days prior to the effective date of cancellation for nonpayment of premium.

The time of surrender or the effective date and hour of cancellation stated in the notice shall become the end of the "policy period".

If we cancel, subject to any minimum earned premium that may apply, the return premium will be calculated on a pro rata basis. If the "first named insured" cancels, subject to any minimum earned premium that may apply, the return premium may be less than pro rata.

If we elect to non-renew this policy, we shall provide written notice of non-renewal to the "first named insured" at least thirty (30) days prior to the expiration date of the policy.

We shall provide written notice of cancellation or nonrenewal to the governmental agency or body with jurisdiction over the "covered location" with respect to the specified Financial Assurance law, rule or regulation indicated in a Schedule of Covered Locations (Financial Assurance) endorsement, not less than sixty (60) days prior to the effective date of cancellation for any reason except ten (10) days prior to the effective date of cancellation for nonpayment of premium regardless of any other notice requirement applicable to Cancellation set forth above.

We shall send all notices required under this section by certified mail to the "first named insured" at the address set forth in Item 1. of the Declarations, and by mail or electronic mail to the "first named insured's" authorized agent, if any. The mailing of notice as aforesaid shall be sufficient proof of notice. Delivery of such written notice either by the "first named insured" or by us shall be equivalent to mailing.

E. CHANGES

The terms of this policy shall not be waived or changed, except by endorsement issued to form a part of this policy.

F. CHOICE OF LAW

In the event of a disagreement as to the meaning, interpretation or operation of any term, condition, definition or provision of this policy that results in arbitration, litigation or other form of dispute resolution, this policy shall be governed by the law of the State of New York without giving effect to any conflicts or choice of law principles.

G. COOPERATION

The "insured" agrees with us to assist and cooperate in the fulfillment of the policy's terms, including the investigation, adjustment, defense or settlement of any "claim" or in connection with the "discovery" of any "pollution event". Such cooperation may include authorizing us to obtain records and other information, participating at meetings; testifying at hearings, depositions and trials; and securing evidence. In addition, all "insureds" shall cooperate with us in the pursuit of any coverage that may be available from other insurers and/or under other insurance policies for "claim expenses", "cleanup costs", "loss", "interruption expenses", "emergency expenses" or "crisis management expenses", covered under this policy.

H. COVERAGE F: LOSS OF BUSINESS AND/OR RENTAL INCOME – CONDITIONS PRECEDENT

Under INSURING AGREEMENTS (Section I.) COVERAGE F: LOSS OF BUSINESS AND/OR RENTAL INCOME, it is a condition precedent to payment that:

1. The "insured" must act in good faith to:
 - (a) Take steps to reduce "loss of business income", and/or "loss of rental income" including taking prompt and reasonable steps to relocate "tenants" where reasonably and economically feasible;
 - (b) Diligently execute and complete "cleanup" to the extent within the "insured's" control; and

- (c) Resume "operations" at the "covered location" as soon as reasonably possible; and
2. No "suspension of operations" or suspension of other normal and customary operations at the "covered location" exist at the time of a "discovery" of a "pollution event" or the making of a "claim" against the "insured" with respect to a "pollution event"; and/or
 3. With respect to "loss of rental income", a written lease agreement between the "tenant" and the "named insured" is in effect when the "pollution event" is first "discovered" at a "covered location" or the "claim" is made against the "insured".

I. HEADINGS

The descriptions in the headings of this policy are solely for convenience and form no part of the policy terms and conditions.

J. LEGAL ACTION AGAINST US

No person or organization has a right under this policy to:

1. Join us as a party or otherwise bring us into a "claim" or any other adjudication asking for "cleanup costs", "loss", "interruption expenses", "supplementary payments", "emergency expenses", "crisis management expenses" or applicable "claim expenses" from an "insured"; or
2. Sue us unless all of the policy's terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an "insured" obtained after an actual trial; but we will not be liable for "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses" or applicable "claim expenses" that are not payable under the terms of this policy or that are in excess of the applicable limits of liability. An agreed settlement means a settlement and release of liability signed by us, the "insured" and the claimant or the claimant's legal representative.

K. OTHER INSURANCE

1. The insurance provided under this policy is primary insurance, except this insurance shall apply as excess insurance: a) with respect to INSURING AGREEMENTS (Section I.) COVERAGE C: NON OWNED LOCATION LIABILITY and COVERAGE D: TRANSPORTATION LIABILITY, to any other available insurance, including auto insurance; b) as provided in connection with any extended reporting period as described in EXTENDED REPORTING PERIODS (Section VII.); or c) where stated in an endorsement to apply in excess of, or contingent upon the absence of, other insurance. When this insurance is primary and the "insured" has other insurance which is stated to be applicable to the "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments on an excess basis, the amount of our liability under this policy shall not be reduced by the existence of such excess insurance.
2. When this insurance is excess, we shall have no duty to defend the "insured" against any "claim" if any other insurer has a duty to defend the "insured" against such "claim". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers. When this insurance is excess over other insurance, we will pay only our share of the amount of "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments if any, that exceeds the sum of:
 - (a) The total amount that all such other insurance would pay for the "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments in the absence of this insurance; and
 - (b) The total of all Deductible and/or self-insured amounts under all that other insurance.
3. When both this insurance and other insurance apply to the "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments on the same basis, whether primary, excess or contingent, we shall not be liable under this policy for a greater proportion of the "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments than the amount set forth in Item 3. of the Declarations or in an endorsement as applicable, or the amount resulting from the following contribution methods, whichever is lesser:

- (a) Contribution by equal shares - Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the "cleanup costs", "loss", "interruption expenses", "emergency expenses", "crisis management expenses", applicable "claim expenses" and Supplementary Payments remains, whichever occurs first; or
- (b) Contribution by limits - each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

L. REPRESENTATIONS

By acceptance of this policy, the "named insured" agrees that the statements in the Declarations, and those made in the Application are its agreements and representations and are accurate and complete, that this policy is issued in reliance upon the truth of such statements and representations and that this policy embodies all agreements existing between the "named insured" and us relating to this insurance.

M. SEPARATION OF INSUREDS

Except with respect to the Limits of Liability and any rights and duties specifically assigned to the "first named insured", this insurance applies:

1. As if each "first named insured" were the only "named insured"; and
2. Separately to each "insured" against whom a "claim" is made.

Misrepresentation, concealment, breach of condition or violation of any duty under this policy by one "insured" shall not prejudice the interest or coverage for another "insured" under this policy, except where an "insured" is a parent, subsidiary, or affiliate of the "named insured" set forth in Item 1 of the Declarations. For purposes of the immediately preceding sentence, an "affiliate" is any company or entity that is in control of, controlled by, or under common control with the "named insured". "Control" (including the terms "controlled by" and "under common control with") as used herein includes, but is not limited to, the possession, directly or indirectly and whether acting alone or in conjunction with others, of the authority to direct or cause the direction of the management or policies of a company or entity. A voting interest of twenty five percent (25%) or more creates a rebuttable presumption of control.

N. SOLE AGENT

The "first named insured" shall act on behalf of all "insureds" for all purposes, including but not limited to the payment of Deductible amounts, payment or return of premium, receipt and acceptance of any endorsement issued to form a part of this policy, giving and receiving notice of cancellation or nonrenewal, and the exercise of the rights provided in EXTENDED REPORTING PERIODS (Section VII.).

O. SUBROGATION

In the event of any payment under this policy, we shall be subrogated to all of an "insured's" rights of recovery against any person or organization, including any rights to contribution from any other insurer. An "insured" shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. No "insured" shall do anything to impair, prejudice or waive such rights.

Any recovery obtained through subrogation shall accrue first to the "insured" to the extent of any payments in excess of the limit of liability; then to us to the extent of our payment under the policy; and then to the "insured" to the extent of the Deductible. Expenses incurred in such subrogation shall be apportioned among the interested parties in the recovery in the proportion that each interested party's share in the recovery bears to the total recovery.

P. THIRD PARTY BENEFICIARIES

No third party beneficiaries are created as a result of this policy. This policy creates no rights by or on behalf of any third parties. We have no obligation under this policy to any third party whatsoever and specifically we have no obligation to make payment to or on behalf of anyone except the "insured".



ZURICH

Schedule of Covered Locations with Material Change in Use/Operations Exclusion

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, that the following are "covered location(s)" for purposes of Section V. Definitions, paragraph H.:

	Covered Location Description	Use Description	Retroactive Date	Delimitation Date

It is further agreed that Section VI. (Exclusions), paragraph J. Material Change in Use, is deleted in its entirety and replaced with the following:

J. Material Change in Use or Operations

Any material change in the use of, or operations conducted at, a "covered location" from that which was disclosed in the Application or listed on this Schedule of Covered Locations endorsement. However, this exclusion does not apply to a specific change in use of, or operations conducted at, a "covered location" to which we have expressly given our prior written consent. Material change in use includes, but is not limited to, disturbance of vacant land.

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.



ZURICH[®]

Additional Insured (Where Required by Contract)

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice™ Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "named insured and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions and conditions of the policy, that any person or entity that the "named insured" is required to add as an additional "insured" on this policy in a written contract or written agreement executed and effective prior to a "pollution event" shall be added as an "insured" under this policy but solely with respect to liability arising from the "named insured's" ownership, operation, or use of a "covered location" and otherwise covered under the terms and conditions of this policy.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.



Known Pollution Event Schedule Excluding Cleanup

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice® Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "first named insured" and in reliance upon the statements made in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, that:

1. Pursuant to EXCLUSIONS (Section VI.), Exclusion H. Known Pollution Event, shall not apply to any known "pollution event" scheduled below or disclosed in the documents scheduled below, provided that any such "pollution event" is not otherwise excluded under the policy.

"COVERED LOCATION(S)"	"POLLUTION EVENT" REFERENCE

2. Pursuant to paragraph 1 of this endorsement, the "pollution event(s)" scheduled below or disclosed in the documents scheduled below are hereby excluded solely with respect to "cleanup costs".

"COVERED LOCATION(S)"	"POLLUTION EVENT" REFERENCE

3. Notwithstanding paragraph 2, above, following our receipt and review of a No Further Action determination or other equivalent confirmation from the "governmental authority" having jurisdiction over the "pollution event" that no further cleanup or other action is required with respect to such "pollution event", we may issue an endorsement modifying the exclusion in paragraph 2 above to provide coverage in whole or in part for such referenced "pollution event" provided further that any such modification may include specific terms, conditions, sub-limits of liability, or separate Deductibles/Retentions we reasonably deem necessary and appropriate.

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.

SPECIAL ENDORSEMENT



ZURICH

Nuclear Energy Liability Exclusion

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice® Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "first named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, that the following is added to EXCLUSIONS (Section VI.):

Nuclear Energy Liability

1. Any coverage for "cleanup costs", "loss", "interruption expenses", "emergency expenses", Supplementary Payments and applicable "claim expenses":
 - a. For which an "insured" under the policy is also an "insured" under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada or any of their successors, or would be an "insured" under any such policy but for its termination upon exhaustion of its limit of liability; or
 - b. Resulting from the "hazardous properties" of "nuclear material" and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the "insured" is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.
2. Under any liability coverage, "cleanup costs", "loss", "interruption expenses", "emergency expenses", Supplementary Payments and applicable "claim expenses" resulting from "hazardous properties" of "nuclear material," if:
 - a. The "nuclear material" (i) is at any "nuclear facility" owned by or operated by or on behalf of, an "insured" or (ii) has been discharged or dispersed therefrom;
 - b. The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an "insured"; or
 - c. The "cleanup costs", "loss", "interruption expenses", "emergency expenses", Supplementary Payments and applicable "claim expenses" arises out of the furnishing by an "insured" of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility," but if such facility is located within the United States of America, its territories or possessions or Canada, this exclusion (3) applies only to "property damage" to such "nuclear facility" and any property thereat.

As used in this exclusion:

“Hazardous properties” includes radioactive, toxic or explosive properties.

“Nuclear material” means “source material”, “special nuclear material” or “by-product material”.

“Source material”, “special nuclear material”, and “by-product material” have the meanings given them in the Atomic Energy act of 1954 or in any law amendatory thereof.

“Spent fuel” means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a “nuclear reactor.”

“Waste” means any waste matter (a) containing “by-product material” other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its “source material” content, and (b) resulting from the operation by any person or organization of any “nuclear facility” included under the first two paragraphs of the definition of “nuclear facility”.

“Nuclear facility” means:

- a. Any “nuclear reactor”;
- b. Any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing “spent fuel”, or (3) handling, processing or packaging “waste”;
- c. Any equipment or device used for the processing, fabricating or alloying of “special nuclear material” if at any time the total amount of such material in the custody of the “insured” at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;
- d. Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of “waste”;

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

“Nuclear reactor” means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material. “Property damage” for the purposes of this endorsement, includes all forms of radioactive contamination of property.

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.



ZURICH

Additional Named Insured

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions and conditions of the policy, that the person(s) or entity(s) listed below is(are) a "named insured" pursuant to DEFINITIONS, Section V., paragraph CC. Named Insured:

Named Insured:

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.



ZURICH[®]

Deed Restrictions and Land Use Controls Exclusion

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice[®] Pollution Liability- Claims Made and Reported Coverage

Schedule
Per Schedule of Covered Locations with Material Change in Use/Operations Exclusion endorsement # STF-EPC-151

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions and conditions of the policy and ONLY with respect to the "covered locations" shown in the Schedule above, that the following is added to EXCLUSIONS (Section VI.):

Deed Restrictions and Land Use Controls

Any noncompliance with, or violation of, any deed restrictions, restrictive covenants or land use controls by or on behalf of an "insured" applicable to a "covered location".

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.



Minimum Earned Premium

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice™ Pollution Liability – Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, that this policy has a

100	% earned at inception	
	% earned at end of year	
	% earned at end of year	
	And fully earned as of year	

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.



ZURICH[®]

Amendment of Cancellation

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice™ Pollution Liability - Claims Made and Reported Coverage

Schedule
Per Schedule of Covered Locations with Material Change in Use/Operations Exclusion endorsement # STF-EPC-151

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions and conditions of the policy and ONLY with respect to the "covered location" shown in the Schedule above,, that CONDITIONS, Section X., paragraph D. Cancellation is deleted and replaced with the following:

E. CANCELLATION

This policy may be canceled by the "first named insured" by surrender to us or by mailing to us written notice stating when thereafter cancellation shall be effective.

We may cancel this policy for the following reasons only:

1. Fraud or material misrepresentation;
2. Any "insured's" failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible amount when due;
3. A material change in use or a material change in operations under any coverage which is different from the uses or operations identified in writing to us during the underwriting process, in the Application or in an endorsement to the policy and which materially increases a risk covered hereunder. This cancellation will only apply to specific site(s) where material change in use or material change in operations occurs; or
4. Nonpayment of premium.

We shall provide written notice of cancellation to the "first named insured" stating a reason for the cancellation not less than:

1. Ninety (90) days prior to the effective date of cancellation for any "insured's" failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible amount when due, or a material change in use or a material change in operations under any coverage which is different from the uses or operations identified in writing to us during the underwriting process, in

the Application or in an endorsement to the policy and which materially increases a risk covered hereunder;

2. Thirty (30) days prior to the effective date of cancellation for fraud or material misrepresentation; and
3. Ten (10) days prior to the effective date of cancellation for nonpayment of premium.

The time of surrender or the effective date and hour of cancellation stated in the notice shall become the end of the "policy period".

If we cancel, subject to any minimum earned premium that may apply, the return premium will be calculated on a pro rata basis. If the "first named insured" cancels, subject to any minimum earned premium that may apply, the return premium may be less than pro rata.

If we elect to non-renew this policy, we shall provide written notice of non-renewal to the "first named insured" at least thirty (30) days prior to the expiration date of the policy.

We shall provide written notice of cancellation or nonrenewal to the governmental agency or body with jurisdiction over the "covered location" with respect to the specified Financial Assurance law, rule or regulation indicated in a Schedule of Covered Locations (Financial Assurance) endorsement, not less than sixty (60) days prior to the effective date of cancellation for any reason except ten (10) days prior to the effective date of cancellation for nonpayment of premium regardless of any other notice requirement applicable to Cancellation set forth above.

We shall send all notices required under this section by certified mail to the "first named insured" at the address set forth in Item 1. of the Declarations, and by mail or electronic mail to the "first named insured's" authorized agent, if any. The mailing of notice as aforesaid shall be sufficient proof of notice. Delivery of such written notice either by the "first named insured" or by us shall be equivalent to mailing.

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY SHALL AND REMAIN UNCHANGED.



ZURICH

Amendment of Transportation Definition First and Third Party Coverage for all Modes

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice® Pollution Liability - Claims Made and Reported Coverage

- I. In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, that DEFINITIONS (Section V), paragraph TT. "Transportation" is deleted in its entirety and replaced with the following:

TT. "Transportation" means the movement on or after any applicable "retroactive date" of goods, products or waste, including oil, petroleum, pesticide products, and materials to be recycled, reconditioned or reclaimed to or from a "covered location", "non-owned location" or "job site" by automobile, railcar, aircraft and watercraft where "covered operations" have been or are being performed by the "named insured", or a third party properly licensed to transport such goods, products or waste acting on behalf of the "named insured" pursuant to written contract commencing with the loading of such goods, products or waste and ending when the unloading of the goods, products or waste is complete.

ALL OTHER TERMS, EXCLUSIONS, AND CONDITIONS OF THE POLICY APPLY AND REMAIN UNCHANGED.



ZURICH

Amendatory Endorsement

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice® Pollution Liability - Claims Made and Reported Coverage

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions and conditions of the policy that the following amendments shall apply:

1. DEFINITIONS (Section V.) shall be amended as follows:

A. Definition A. "Bodily Injury" is deleted in its entirety and replaced with the following:

"Bodily injury" means any physical injury, sickness, disease, mental anguish or emotional distress sustained by any person, including death resulting therefrom. "Bodily Injury" shall also include medical monitoring costs.

B. Definition G. "Cleanup costs" is deleted in its entirety and replaced with the following:

G. "Cleanup costs" means:

1. Reasonable and necessary costs, charges and expenses, incurred in the investigation, removal, remediation (including associated monitoring), neutralization or immobilization of contaminated soil, surface water, groundwater, or other contamination:
 - a. To the extent required by "governmental authority", plus reasonable additional costs, charges and expenses incurred, at the "insured's" election, for "green remediation" not to exceed the Green Remediation Limit set forth in Item 3. of the Declarations, where such "green remediation" is neither legally necessary nor required by "governmental authority"; or
 - b. That have actually been incurred by the government or any political subdivision of the United States of America or any state thereof or of the District of Columbia or Canada or any province thereof, or by third parties;
2. Where real property or improvements thereto are damaged in the course of performing the activities described in paragraph 1. above, reasonable and necessary costs, charges and expenses to repair, replace or rebuild such real property or improvements to substantially their condition immediately prior to any such damage, plus reasonable additional costs, charges and expenses to repair, replace or rebuild such damaged property to comply with applicable "green standards" not to exceed the Green Standards Limit set forth in Item 3. of the Declarations; but excluding any other costs, charges or expenses for improvements or betterments, including, but not limited to, those arising from compliance with any law

that was not applicable to (including by operation of any grandfather provision contained in any such law) or not enforced against the property before it was so damaged; and

3. "Emergency expenses".
4. "Claim expenses" in connection with a "claim" for "cleanup costs"; provided however, "claim expenses" shall not be considered part of the definition of "cleanup costs" to the extent of coverage provided for Financial Assurance indicated in a Schedule of Covered Locations (Financial Assurance) endorsement attached to the policy; and
5. Civil fines and civil penalties and punitive, exemplary or multiple damages to the extent insurable by law in connection with a "claim" for "cleanup costs"; and
6. With respect to "discovery", only those "reasonable legal costs" incurred with our prior written consent which shall not be unreasonably withheld, delayed or denied.

"Cleanup costs" do not include "loss" for "property damage" except as provided in subparagraph 2. above, or "natural resource damages".

C. Definition H. "Covered Location" is deleted in its entirety and replaced with the following:

H. "Covered location" means:

1. Property listed in a Schedule of Covered Locations endorsement and any amendments thereto including an endorsement to add a "covered location" that is not an "automatically qualified property" because it does not satisfy the "environmental due diligence policy" but for which we have otherwise agreed to provide coverage subject to any additional exclusions, conditions or other limitations;
2. "Inadvertently omitted property".

D. Definition M. "Emergency expenses" is deleted in its entirety and replaced with the following:

M. "Emergency expenses" means costs, charges and expenses incurred to avoid or otherwise mitigate an actual imminent and substantial endangerment to the public health or the environment.

E. Definition Q. "Governmental authority" is deleted in its entirety and replaced with the following:

Q. "Governmental authority" means federal, state, local or District of Columbia statutes, regulations, ordinances, "voluntary cleanup program(s)" or orders applicable to "pollution events" including those applicable to any licensed professional authorized pursuant to state law to oversee remediation that is on, at, under or that is migrating or has migrated beyond the boundaries from a "covered location". For the purpose of "microbial substances", "governmental authority" includes a written determination by a "certified industrial hygienist" in accordance with all applicable professional standards.

F. Definitions Y. "Loss" is deleted in its entirety and replaced with the following:

Y. "Loss" means:

1. Compensatory damages, whether awarded by a court in a judgment or paid in settlement for:
 - (a) "Bodily injury" including costs for medical monitoring for a person but only when such medical monitoring is a direct result of physical injury to such person; or
 - (b) "Property damage" including diminution in property value and stigma damage to property, but only when such diminution in value or stigma damage is a direct result of physical injury to such property;
2. "Cleanup costs";
3. "Natural resource damages";
4. Civil fines and civil penalties and punitive, exemplary or multiple damages to the extent insurable by law in connection with a "claim" under paragraph 1., 2., and 3. above; and
5. "Claim expenses".

G. Definition CC. "Named Insured" is deleted in its entirety and replaced with the following:

All corporations, partnerships, LLC's, Joint Ventures and organizations in which the named insured did or does have more than 50% ownership interest, and/or has effective or managerial control, or for which it is required to maintain insurance including any affiliated, associated, allied and subsidiary entities."

H. Definition II. "Pollution event(s)" is deleted in its entirety and replaced with the following:

II. "Pollution event(s)" means the discharge, dispersal, release, or escape of any solid, liquid, gaseous or thermal irritant, contaminant or pollutant, including smoke, vapor, soot, fumes, acids, alkalis, toxic or hazardous substances, electromagnetic fields, chemicals, waste (including medical, infectious and pathological waste), and low level radioactive waste and materials, into or upon land, or any structure on land, the atmosphere, or any watercourse or body of water including groundwater in concentrations or at levels in excess of those naturally present in the environment. "Pollution event" includes:

1. The illicit abandonment of any irritant, contaminant or pollutants at a "covered location" provided that such abandonment was committed by parties other than the "insured" and without the knowledge of a "responsible insured"; and
2. Any "microbial substances" that are present on, at or within any buildings or other structures at a "covered location" or "job site".

I. Definitions VV. "Voluntary cleanup program" is deleted in its entirety and replaced with the following:

VV. "Voluntary cleanup program(s)" means a program of the United States or a state of the United States, including the District of Columbia, enacted pursuant to "governmental authority" which provides for a mechanism for the written approval of, or authorization to conduct, voluntary remedial action for the cleanup, removal or remediation of "pollution events" that exceed actionable levels established pursuant to "governmental authority".

J. Definition of "Asbestos abatement" – The following Definition is added:

"Asbestos abatement" means any activities to remove, or prevent, abate, avoid, or control the release of asbestos-containing material including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs conducted by a licensed and certified asbestos contractor in the jurisdiction, state or district where the abatement is being conducted.

K. Definition of "Lead abatement" – The following Definition is added:

"Lead abatement" means any activities to remove, prevent, abate, avoid or control the release of lead-based paint including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs conducted by a licensed and certified asbestos contractor in the jurisdiction, state or district where the abatement is being conducted.

2. EXCLUSIONS (Section VI.) shall be amended as follows:

A. Exclusion A. **ABATEMENT AND CONTROL – ASBESTOS** is deleted in its entirety and replaced with the following:

A. ABATEMENT AND CONTROL – ASBESTOS

Any activities to remove, or prevent, abate, avoid, or control the release of asbestos-containing material which are part of or applied to any fixtures, buildings or improvements on, at or under a "covered location", including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

However, this exclusion shall not apply to:

- 1) Claims for "Bodily injury", "Property damage" or "Natural resource damages" based upon or arising out of "asbestos abatement"; or

- 2) Inadvertent disturbance of asbestos-containing material; or
- 3) "Cleanup costs" for the remediation of asbestos-containing material in soil and groundwater.

B. Exclusion B. ABATEMENT AND CONTROL – LEAD BASED PAINT is deleted in its entirety and replaced with the following:

B. ABATEMENT AND CONTROL – LEAD BASED PAINT

Any activities to remove, or prevent, abate, avoid, or control the release of lead-based paint which are part of or applied to any fixtures, buildings or improvements on, at or under a "covered location", including, but not limited to, removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

However, this exclusion shall not apply to:

- 1) Claims for "Bodily injury", "Property damage" or "Natural resource damages" based upon or arising out of "lead abatement"; or
- 2) Inadvertent disturbance of lead- based paint; or
- 3) "Cleanup costs" for the remediation of lead-based paint in soil and groundwater.

C. Exclusion I., Known Underground Storage Tanks shall be deleted in its entirety and replaced with the following:

I. Known Underground Storage Tanks

Any "underground storage tank", whether active, inactive or abandoned, known to any "responsible insured"; however this exclusion does not apply to:

1. Any "underground storage tank" that is listed on a Scheduled Underground Storage Tank endorsement to this policy, if any;
2. Any "underground storage tank" that was closed or abandoned-in-place prior to the inception date of this policy in accordance with all "environmental laws" in effect at the time of closure or abandonment;
3. Any septic tank;
4. Any oil-water separator;
5. Any storage tank that is situated in an underground area such as a basement, cellar, mine shaft or tunnel if such storage tank is situated upon or above the surface of the floor; or
6. Any storm water tank and/or wastewater tank.

B. Exclusion Q. Wrongful Acts or Deliberate Non-Compliance shall be deleted in its entirety and replace with the following:

Q. Wrongful Acts or Deliberate Non-Compliance

Any:

1. Knowingly wrongful act, by or at the direction of a "responsible insured, or
2. Deliberate non-compliance with any "governmental authority", administrative complaint, notice of violation, notice letter, or instruction of any governmental agency or body by or at the direction of a "responsible insured".

However, this exclusion does not apply to such noncompliance based upon the "insured's" good faith reliance on the written advice of qualified outside counsel received in advance of such non-compliance or upon our prior written consent.

3. CONDITIONS (Section X.) shall be amended as follows:

A. Condition A. ASSIGNMENT is deleted in its entirety and replaced with the following:

This Policy may be assigned with the prior written consent of the Company, which consent shall not be unreasonably withheld or delayed. Assignment of interest under this Policy shall not bind the Company until its consent is endorsed thereon.

- B. Condition B. AUDIT AND INSPECTION is deleted in its entirety and replaced with the following:

B. AUDIT AND INSPECTION

To the extent the "insured" has such rights, any of the Company's authorized representatives shall have the right and opportunity but not the obligation to interview persons employed by the "insured" and, with prior reasonable notice to the "insured", to inspect at any reasonable time during the "policy period" or thereafter, the "covered location". Neither the Company nor its representatives shall assume any responsibility or duty to the "insured" or to any other party, person or entity, by reason of such right or inspection. Neither the Company's right to make inspections, sample and monitor, nor the actual undertaking thereof nor any report thereon shall constitute an undertaking on behalf of the "insured" or others, to determine or warrant that property or operations are safe, healthful or conform to acceptable engineering practices or are in compliance with any law, rule or regulation. The "named insured" agrees to provide appropriate personnel to assist the Company's representatives during any inspection.

- C. Condition D. CANCELLATION AND NONRENEWAL is deleted in its entirety and replaced with the following:

D. CANCELLATION AND NONRENEWAL

This policy may be canceled by the "named insured" by surrender to us or by mailing to us written notice stating when thereafter cancellation shall be effective.

This policy may be canceled by us by mailing to the "named insured" at the address set out in Item 1. of the Declarations, a notice stating when thereafter such cancellation shall be effective. We may cancel this policy for the following reasons only:

1. Fraud or material misrepresentation;
2. Any "insured's" material failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible when due;
3. Nonpayment of premium.

The mailing of notice as aforesaid shall be sufficient proof of notice. The time of surrender or the effective date and hour of cancellation stated in the notice shall become the end of the "policy period." Delivery of such written notice either by the "named insured" or by us shall be equivalent to mailing. Notice of pending cancellation will be provided not less than: (a) ninety (90) days for any "insured's" failure to comply with the terms, conditions or contractual obligations under this policy including failure to pay the Deductible when due; (b) thirty (30) days for fraud or material misrepresentation; and (c) ten (10) days for nonpayment of premium.

If we cancel, subject to any minimum earned premium that may apply, the return premium will be calculated on a pro rata basis. If the "named insured" cancels, subject to any minimum earned premium that may apply, there may be no return premium or the return premium may be less than pro rata.

In the event we issue a Notice of Cancellation, the "named insured" shall have the right to remedy the cause for cancellation. We agree to rescind the Notice of Cancellation if such remedy is satisfied to our reasonable discretion, not to be unreasonably withheld, delayed or denied, prior to the expiration of the ninety (90) day Notice of Cancellation (ten (10) days for non-payment of premium).

- D. Condition L. REPRESENTATIONS is deleted in its entirety and replaced with the following:

By acceptance of this policy, the "named insured" agrees that the statements in the Declarations and in the Application are its agreements and representations, that this policy is issued in reliance upon the "named insured's" belief of the truth of such statements and representations and that this policy embodies all agreements existing between the "named insured" and us relating to this insurance.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

Microbial Substances Cleanup Costs Exclusion



Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
					---	---

Named Insured and Mailing Address:

Producer:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

Z Choice® Pollution Liability - Claims Made and Reported Coverage

"COVERED LOCATION"
Per Schedule of Covered Locations with Material Change in Use/Operations Exclusion endorsement # STF-EPC-151

In consideration of the payment of premium and the Deductible by the "named insured" and in reliance upon the statements made in the application process and in the Application all of which are made a part hereof, we agree, subject to all the terms, exclusions, and conditions of the policy, solely with respect to "cleanup costs" based upon, arising out of or compromised of, in whole or in part, "microbial substances" under COVERAGE A CLEANUP COSTS - ONSITE AND/OR OFFSITE EXISTING AND/OR NEW POLLUTION EVENT LIABILITY or COVERAGE E - INCIDENTAL COVERED OPERATIONS LIABILITY, and ONLY with respect to the "covered locations" shown in the Schedule above, the following changes are made to the policy:

1. DEFINITIONS (Section V.), Paragraph II. "Pollution event" is deleted in its entirety and replaced with the following:
 - II. "Pollution event(s)" means the discharge, dispersal, release, seepage, migration or escape of any solid, liquid, gaseous or thermal irritant, contaminant or pollutant, including smoke, vapor, soot, fumes, acids, alkalis, toxic or hazardous substances, electromagnetic fields, chemicals, waste (including materials to be recycled, reconditioned or reclaimed, and/or medical, infectious and pathological waste), radioactive waste and materials, asbestos, and lead into or upon land, or any structure on land, the atmosphere, or any watercourse or body of water including groundwater, in concentrations at levels in excess of those naturally present in the environment. "Pollution event" includes the illicit abandonment of any irritant, contaminant or pollutant at a "covered location" provided that such abandonment was committed by parties other than any "insured" and without the knowledge of any "responsible insured".

However, "pollution event" does not include any exposure to infected humans or animals, or contact with bodily fluids or materials of infected humans or animals.
2. EXCLUSIONS (Section VI.) Paragraph L. MICROBIAL SUBSTANCE, is deleted in its entirety and replaced with the following:

MICROBIAL SUBSTANCE

Any "microbial substance".

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

SPECIMEN



Important Notice

Service of Suit and In Witness Clause

Service of Suit

In the event an action or proceeding arises under the contract, it is agreed that the Company, at your request, will submit to the jurisdiction of a court of competent jurisdiction within the United States. Nothing in this condition constitutes or should be understood to constitute a waiver or limitation of the right to arbitration as set forth herein or to commence an action in any court of competent jurisdiction in the United States to remove an action to a United States District Court or to seek a transfer of a case to another court as permitted by the laws of the United States or any state in the United States. It is further agreed that service of process in such suit may be made upon Illinois Corporation Service Company, 801 Adlai Stevenson Drive, Springfield, IL 62703. In any suit instituted against the Company upon this policy, the Company will abide by the final decision of such court or of any appellate court in the event of an appeal.

Further, pursuant to any statute of any state, territory, or district of the United States which makes provision therefore, the Company hereby designates the Superintendent, Commissioner or Director of Insurance, other officer specified for that purpose in the statute, or his successors in office as its true and lawful attorney upon whom may be served any lawful process in any action, suit, or proceeding instituted by or on behalf of the Insured of any beneficiary hereunder arising out of this policy of insurance and hereby designates the above named Illinois Corporation Service Company as the entity to whom the said officer is authorized to mail such process or a true copy thereof.

In Witness Clause

In return for the payment of premium, and subject to the terms of this policy, coverage is provided as stated in this policy.

IN WITNESS WHEREOF, this Company has executed and attested these presents and, where required by law, has caused this policy to be countersigned by its duly Authorized Representative(s).

Handwritten signature of Mark G. Karpfner in black ink.

President

Handwritten signature of the Corporate Secretary in black ink.

Corporate Secretary

QUESTIONS ABOUT YOUR INSURANCE? Your agent or broker is best equipped to provide information about your insurance. Should you require additional information or assistance in resolving a complaint, call or write to the following (please have your policy or claim number ready):

Zurich in North America
Customer Inquiry Center
1299 Zurich Way
Schaumburg, Illinois 60196
1-800-382-2150 (Business Hours: 8am - 4pm [CT])
Email: info.source@zurichna.com



Insured Name:
Policy Number:
Effective Date:

THIS DISCLOSURE IS ATTACHED TO AND MADE PART OF YOUR POLICY.

**DISCLOSURE OF IMPORTANT INFORMATION
RELATING TO TERRORISM RISK INSURANCE ACT**

SCHEDULE*

Premium attributable to risk of loss from certified acts of terrorism for lines of insurance subject to TRIA:

*Any information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Disclosure of Premium

In accordance with the federal Terrorism Risk Insurance Act ("TRIA"), as amended, we are required to provide you with a notice disclosing the portion of your premium, if any, attributable to the risk of loss from terrorist acts certified under that Act for lines subject to TRIA. That portion of premium attributable is shown in the Schedule above. The premium shown in the Schedule above is subject to adjustment upon premium audit, if applicable.

B. Disclosure of Federal Participation in Payment of Terrorism Losses

The United States Government may pay a share of insured losses resulting from an act of terrorism. The federal share will decrease by 5% from 85% to 80% over a five year period while the insurer share increases by the same amount during the same period. The schedule below illustrates the decrease in the federal share:

January1, 2015 – December 31, 2015 federal share: 85%
January1, 2016 – December 31, 2016 federal share: 84%
January1, 2017 – December 31, 2017 federal share: 83%
January1, 2018 – December 31, 2018 federal share: 82%
January1, 2019 – December 31, 2019 federal share: 81%
January1, 2020 – December 31, 2020 federal share: 80%

C. Disclosure of \$100 Billion Cap on All Insurer and Federal Obligations

If aggregate insured losses attributable to terrorist acts certified under TRIA exceed \$100 billion in a calendar year (January 1 through December 31) and an insurer has met its deductible under the program, that insurer shall not be liable for the payment of any portion of the amount of such losses that exceeds \$100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of Treasury.

D. Availability

As required by TRIA, we have made available to you for lines subject to TRIA coverage for losses resulting from acts of terrorism certified under TRIA with terms, amounts and limitations that do not differ materially from those for losses arising from events other than acts of terrorism.

E. Definition of Act of Terrorism under TRIA

TRIA defines "act of terrorism" as any act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act ("TRIA"), to be an act of terrorism. The Terrorism Risk Insurance Act provides that the Secretary of Treasury shall certify an act of terrorism:

1. To be an act of terrorism;
2. To be a violent act or an act that is dangerous to human life, property or infrastructure;
3. To have resulted in damage within the United States, or outside of the United States in the case of an air carrier (as defined in section 40102 of Title 49, United States Code) or a United States flag vessel (or a vessel based principally in the United States, on which United States income tax is paid and whose insurance coverage is subject to regulation in the United States), or the premises of a United States mission; and
4. To have been committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

No act may be certified as an act of terrorism if the act is committed as part of the course of a war declared by Congress (except for workers' compensation) or if losses resulting from the act, in the aggregate for insurance subject to TRIA, do not exceed \$5,000,000.

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Endorsement #



Cap On Losses From Certified Acts Of Terrorism

Insured's Name	Policy Number	Effective Date	Endorsement Number

THIS ENDORSEMENT CHANGES YOUR POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies your insurance.

<insert title(s) of applicable coverage form(s), policy form(s), and/or Coverage Part(s)>

A. Cap on Losses From Certified Terrorism Losses

"Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in accordance with provisions of the federal Terrorism Risk Insurance Act ("TRIA"), to be an act of terrorism. The Terrorism Risk Insurance Act provides that the Secretary of Treasury shall certify an act of terrorism:

1. To be an act of terrorism;
2. To be a violent act or an act that is dangerous to human life, property or infrastructure;
3. To have resulted in damage within the United States, or outside of the United States in the case of an air carrier (as defined in section 40102 of Title 49, United States Code) or a United States flag vessel (or a vessel based principally in the United States, on which United States income tax is paid and whose insurance coverage is subject to regulation in the United States), or the premises of a United States mission; and
4. To have been committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

No act may be certified as an act of terrorism if the act is committed as part of the course of a war declared by Congress (except for workers' compensation) or if losses resulting from the act, in the aggregate for insurance subject to TRIA, do not exceed \$5,000,000.

If aggregate insured losses attributable to one or more "certified acts of terrorism" exceed \$100 billion in a calendar year (January 1 through December 31) and we have met our insurer deductible under the Terrorism Risk Insurance Act, we shall not be liable for the payment of any portion of the amount of such losses that exceeds \$100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of Treasury.

B. Application of Other Exclusions

The terms and limitations of a terrorism exclusion or any other exclusion, or the inapplicability or omission of a terrorism exclusion or any other exclusion, do not serve to create coverage which would otherwise be excluded, limited or restricted under this policy.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

ATTACHMENT 17

**COMPANY'S REQUIRED REGULATORY APPROVALS;
CONTRACTOR'S REQUIRED REGULATORY APPROVALS**

1) Company's Required Regulatory Approvals

- a) Approval of the Nuclear Regulatory Commission of the transfer of the NRC License, authorizing possession and maintenance, including Decommissioning, of the NRC-Licensed Site, from Company to Contractor
- b) Issuance of a private letter ruling by the Internal Revenue Service [REDACTED] reasonably acceptable to Company
- c) Florida Public Service Commission approval of the transactions as contemplated by the Agreement, the SNF PSA and the Ancillary Agreements

2) Contractor's Required Regulatory Approvals

- a) Approval of the Nuclear Regulatory Commission of the transfer of the NRC License, authorizing possession and maintenance, including Decommissioning, of the NRC-Licensed Site, from Company to Contractor

SCHEDULE 2.2.9

ENVIRONMENTAL MATTERS

(e) Underground storage tanks located at the CR-3 Facility or the NRC-Licensed Site (whether before or after the reduction in the NRC-Licensed Site to 884 acres as described in Attachment 1 to the Agreement, as indicated):

- DFT-1A (30,000 gal) (#2 Diesel Fuel abandoned)
- DFT-1B (30,000 gal) (#2 Diesel Fuel abandoned)
- LOT-1 (25,000 gal) (Turbine Lube Oil abandoned)
- MET-1. (1,800 gal) (#2 Diesel Fuel abandoned)
- TSC Lift Station #1 (abandoned)
- TSC Lift Station #2 (in service)
- NSOC Lift Station (abandoned)
- SOC Lift Station

Polychlorinated biphenyls (PCB)-containing equipment located at the CR-3 Facility or the NRC-Licensed Site (whether before or after the reduction in the NRC-Licensed Site to 884 acres as described in Attachment 1 to the Agreement, as indicated):^{Note 1}

Tag	Name	Result	Comments
MTTR-1	Unit Aux. Transformer	Contains GE 10-C oil which is a non-PCB insulating fluid	Nameplate + 10-C oil MSDS. There is also a blue sticker on the transformer indicating the transformer is a non-PCB device.
MTTR-2	Start-Up Transformer	Contains GE 10-C oil which is a non-PCB insulating fluid	Nameplate + 10-C oil MSDS.
MTTR-3A/B/C/D	Step-Up transformers	Inhibited Mineral Oil Type II with no detectable PCBs	Data from nameplate. These transformers were manufactured in 2007.
MTTR-6	Back-Up ES Transformer	Type I oil – contains no detectable PCBs at time of manufacture	Data from Nameplate. Transformer manufactured in 1990s.
MTTR-7	South Berm Transformer	Contained < 1 ppm PCBs at time of shipment	Data from nameplate. Transformer manufactured in 2004.
No tag.	Pole-Mounted Distribution Transformers west of NAB (2 banks)	One bank is labeled non-PCB. The other bank has labels but they are unreadable.	These transformer are owned by Duke-Energy Distribution

Note 1: Mastics, caulk material and other materials may also contain PCBs. Transformer and bushing oil has been drained. Residual oil may remain.