



REVIEW OF  
**DUKE ENERGY FLORIDA'S**  
**PROJECT MANAGEMENT**  
**INTERNAL CONTROLS**  
**FOR**  
**NUCLEAR PLANT UPRATE AND**  
**CONSTRUCTION PROJECTS**

J U N E 2 0 1 4

BY AUTHORITY OF  
THE FLORIDA PUBLIC SERVICE COMMISSION  
OFFICE OF AUDITING AND PERFORMANCE ANALYSIS



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# TABLE OF CONTENTS

<b>CHAPTER</b>		<b>PAGE</b>
<b>1.0</b>	<b>EXECUTIVE SUMMARY</b>	
1.1	At a Glance .....	1
1.2	Audit Execution .....	1
1.3	Staff Observations .....	3
<b>2.0</b>	<b>LEVY NUCLEAR PROJECT</b>	
2.1	Levy Key Project Developments .....	5
2.2	Levy Project Controls and Oversight .....	7
<b>3.0</b>	<b>CRYSTAL RIVER 3 EXTENDED POWER UPRATE PROJECT</b>	
3.1	EPU Key Project Developments.....	9
3.2	EPU Project Controls and Oversight .....	12

## TABLE OF EXHIBITS

<b>EXHIBIT</b>		<b>PAGE</b>
1.	Levy Nuclear Project NRC COLA Review Schedule .....	6
2.	EPU Asset Tranches For Disposition.....	11

## 1.0 EXECUTIVE SUMMARY

### 1.1 AT A GLANCE

#### **Levy Nuclear Project (LNP)**

- ◆ Duke Energy Florida (DEF) made the decision to not construct the LNP Units 1 & 2 under the previous timeline.
- ◆ LNP's Combined Operating Licenses (COL) application schedule has been extended to mid-2015 due to NRC-related issues.
- ◆ DEF and the Westinghouse Electric Company LLC are currently in legal litigation. The final outcome of this litigation could impact the company's COL application approval timeline and eventual project costs.

#### **Crystal River 3 Extended Power Uprate (EPU)**

- ◆ EPU Project Closeout was completed in mid-2013, per the company's decision to decommission the Crystal River 3 unit (CR3) nuclear power plant.
- ◆ The EPU project assets have been transferred to the Investment Recovery Project for disposition during 2014.
- ◆ DEF management developed and implemented appropriate Investment Recovery governance and plan documents to dispose of the CR3 inventory, including all EPU project assets and inventory.
- ◆ The Investment Recovery Project team established a systematic approach for the disposition of surplus EPU assets.

### 1.2 AUDIT EXECUTION

#### **1.2.1 PURPOSE AND OBJECTIVE**

This is the seventh annual review of the internal controls and project management oversight for the nuclear projects of Duke Energy Florida, Inc. (DEF or the company) conducted by the Office of Auditing and Performance Analysis. The review examines the adequacy of controls employed in the company's construction of Levy Nuclear Plant Units 1 & 2 and the Extended Power Uprate of Unit 3 located at the Crystal River Energy Complex.

The primary objective of the audit was to provide an independent account of key project activities and to evaluate the internal controls DEF employs for these projects. The information provided in this report may be used by the Commission to assist in an assessment of the reasonableness of the company's cost-recovery requests for the projects.

Commission audit staff published previous reports in 2008 through 2013 entitled *Review of Progress [Duke] Energy Florida Inc.'s Project Management Internal Controls for Nuclear Plant Uprate and Construction Projects*. These previous reports are available on the Commission website.

### **1.2.2 SCOPE**

The internal controls examined were those related to the following key areas of project activity:

- ◆ Planning
- ◆ Management and organization
- ◆ Cost and schedule controls
- ◆ Contractor selection and management
- ◆ Auditing and quality assurance

Internal controls are the vital mechanisms used by the company to stay within budget and on schedule. According to the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing*, appropriate internal controls allow the organization to accomplish the following:

- ◆ Produce accurate and reliable data
- ◆ Comply with applicable laws and regulations
- ◆ Safeguard assets
- ◆ Employ resources efficiently
- ◆ Accomplish goals and objectives

Well-constructed internal controls assist with the challenges of risk management and decision-making. Risks must be identified and appropriate protections established to prevent or control them. Prudent decision-making results from orderly, well-defined processes that address known risks, needs, and capabilities. Adherence to written procedures, effective communication, vigilant internal and contractor oversight, and ongoing auditing and quality assurance are essential to ensure that project costs are incurred prudently.

Specifically, according to Internal Control Integrated Framework designed by the Committee of Sponsoring Organizations of the Treadway Commission, internal controls should consist of five interrelated components:

- ◆ Control environment
- ◆ Risk assessment
- ◆ Control activities
- ◆ Information and communication
- ◆ Monitoring

When assessing operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations, all five components must be present and functioning together to conclude the internal controls over operations are effective. This report examines the existence of each of these five components.

### **1.2.3 METHODOLOGY**

Initial planning, research, and data collection for this review occurred during December 2013 through January 2014. Additional data collection, analysis, and report writing were conducted in January through May 2014. The information compiled in this report was gathered via company responses to audit staff document requests, an onsite visit to the Crystal River Energy Complex and the St. Petersburg main office, and interviews with key project personnel. Audit staff also reviewed testimony, discovery, and other filings in Docket No. 140009-EI.



A large volume of information was collected and analyzed by audit staff. Specific information collected from DEF included the following categories:

- ◆ Policies and procedures
- ◆ Organizational structures
- ◆ Contract requests for proposal
- ◆ Contractor bids
- ◆ Bid evaluation analyses
- ◆ Contracts
- ◆ Change orders
- ◆ Internal audit reports and quality assessment reviews

## **1.3 STAFF OBSERVATIONS**

### **1.3.1 LEVY NUCLEAR PLANT**

- ◆ Staff recognizes that potential delays in the NRC Waste Confidence Rulemaking after September 2014 could impact the COL issuance timeline. This could also impact the overall costs associated with COL approval.
- ◆ In January 2014, the company notified the Engineering, Procurement, and Construction Consortium of its decision to cancel the contract due to lack of Regulatory approval. The company resolved details of this decision with Chicago Bridge & Iron Company in April 2014, and currently is working with Westinghouse Electric Company, LLC to resolve the remaining details. The final cost impact is unknown at this time.

### **1.3.2 CR3 EXTENDED POWER UPRATE**

- ◆ DEF developed and implemented an aggressive EPU close-out plan to demobilize project vendors, release EPU project personnel, and close-out EPU contracts by the end of 2013. Audit staff believes DEF's planned efforts to complete project activities and contracts were reasonable and successful in bringing an orderly closeout of the EPU project.
- ◆ The Investment Recovery Project was implemented in 2013 to dispose of both CR3 and EPU surplus assets. DEF has established and implemented project governance and reporting processes, designed to complete EPU asset disposition by the end of 2014. Audit staff believes that DEF has implemented reasonable monitoring, tracking, and reporting mechanisms to manage project risk, direct the EPU investment recovery effort, and successfully dispose of project assets. Continued management review and oversight should ensure that investment recovery processes are implemented as planned and that the project is successfully completed.
- ◆ DEF has implemented Investment Recovery Project procedures to ensure EPU asset revenues will be identified and correctly credited back to the EPU project through the Nuclear Cost Recovery Clause to further reduce project costs.



## 2.0 LEVY NUCLEAR PROJECT

### 2.1 KEY PROJECT DEVELOPMENTS

In August 2013, Duke Energy announced the decision to discontinue its efforts to construct the Levy Nuclear Plant under the timeline established within its chartered project plan. The company notified the Commission that its revised intention was to continue its efforts to obtain the Combined Operating Licenses from the NRC for the units, but to table any plans to construct the project. The project team states that obtaining the COL will allow the company long-term fuel diversity options.

Commission audit staff notes that the company's internal documentation reflects the decision to suspend any construction activities outside of the COL application process. The company has revised its current project schedule to represent this decision. The company's Board of Director's approved this decision with the acceptance of the settlement reached in the 2013 Nuclear Cost Recovery Docket.

In early 2013, the company estimated the overall project costs at \$18.8 billion [\$24.1 billion including allowance for funds used during construction.] With the company's decision to discontinue its efforts to construct the project, there was no need to revise this estimate.

#### 2.1.1 NRC LICENSING DELAYS

The company has restructured the project charter focusing on obtaining the Combined Operating License. The company has completed most requirements necessary for this approval, however, external factors have delayed this process. Specifically, these include engineering design and the imposed restrictions from the NRC due to the Waste Confidence issue. This issue involves resolving legal issues surrounding the federal rules regarding the handling of spent fuel. The NRC is still addressing this issue, and a resolution is not anticipated prior to late 2014.

As of June 2013, the company anticipated that it would receive its Final Safety Evaluation Report (FSER) in September 2013. The FSER represents the completion of the NRC's safety review process and must be complete before the NRC can move forward with the mandatory hearing process. DEF has repeatedly shifted its timeline for receiving the FSER. The September 2013 date represented a 13-month extension from the previous August 2012 projection. Based upon indications from the NRC, the company anticipates that the FSER will be issued in March 2015. **Exhibit 1** details the company's COL application timeline to date.

The company continues to attribute the COL approval schedule shift to the NRC's review process timeline and requirements. Commission audit staff recognizes that, beyond providing appropriate and timely responses to NRC inquiries, the external NRC review process timeline is outside DEF's control. Commission audit staff believes that DEF has provided timely responses to NRC staff requests for additional information.

<b>LEVY NUCLEAR PROJECT NRC COLA REVIEW SCHEDULE</b>	
<b>Environmental Review</b>	<b>Status</b>
Phase 1 – Environmental Impact Statement (EIS) scoping summary report issued	Completed- May 2009
Phase 2 – Draft EIS issued to the Environmental Protection Agency (EPA)	Completed - August 2010
Phase 3 – Responses to public comments on draft EIS completed	Completed – April 2012
Phase 4 – Final EIS issued to the EPA	Completed - April 2012
<b>Safety Review</b>	<b>Status</b>
Phase A – Requests for Additional Information (RAIs) and Supplemental RAIs	Completed - March 2010
Phase B – Advanced Final Safety Evaluation Report (SER) without Open Items	Completed - September 2011
Phase C – Advisory Committee on Reactor Safeguards (ACRS) Review of Advanced Final SER	Completed – January 2012
Phase D – Final SER	Projected - March 2015
<b>COL Hearing and Approval</b>	<b>Status</b>
Formal Hearing	Projected - July 2015
Final Order – COL	Projected – August 2015

**EXHIBIT 1**

*Source: DEF Response to Staff Data Request LNP DR 1.3*

Another necessary factor for DEF to obtain its COL is a cooperative relationship with the AP1000 design owner, the Westinghouse Corporation. Without a continued partnership between the two companies, DEF will not be able to provide the NRC with necessary site-specific design issues. It is Commission audit staff’s understanding that it will be very difficult, if not impossible, for the company to move forward with its COL approval without access to the proprietary AP1000 design specifications. Currently, the legal disputes between the entities could have an impact on this process.

**2.1.2 EPC CONTRACT TERMINATION**

In January 2014, DEF notified the EPC Consortium (Westinghouse Electric Company LLC and Chicago Bridge & Iron Company) of its cancellation of the Engineering, Procurement, and Construction contract for two Levy AP1000 units. DEF asserts that its cancellation was appropriate given its decision not to move forward with the construction of the two units at this time. In addition, the company asserts that the cancellation was within its rights per the terms and conditions of the contract. Specifically, DEF states that because of federal regulatory delays, the contract allows this action without penalty.

As a result of DEF’s decision to cancel the EPC contract, the two parties entered into a legal dispute over the terms of the contract and both parties assert financial damages. This legal issue is still ongoing and a timeline for resolution remains uncertain. The overall financial impact of the EPC cancellation is also unknown at this time.

One potential impact of this litigation is the company’s need to rely on Westinghouse to support its COL application process. If the uncertainty around the current legal dispute escalates, it could impact the COL approval process. The company recognizes this is a potential risk to the current project.

**2.1.3 ENVIRONMENTAL APPROVALS**

DEF continues its efforts to obtain the necessary environmental permits for the pre-construction phases for the Levy site. The primary environmental work completed in 2013 by DEF was work necessary to support the U.S. Army Corps of Engineers’ concerns regarding potential wetland impacts from groundwater withdrawals. Specifically, the company was required to provide greater detail in areas of Secondary Wetland Impacts, Environmental

Monitoring, and Mitigation on Public Lands. Commission audit staff noted in its June 2013 review that the company anticipated the U.S. Army Corps of Engineers' Clean Waters Act 404/10 Permit to be issued in mid-2013. However, due to continued requests for information by the USACE, the current approval timeline has shifted to late 2014.

#### **2.1.4 ASSET DISPOSITION**

The company has worked with Westinghouse to dispose of long-lead construction components initiated under the EPC contract. The company has established a timeline for final disposition of all equipment and construction contracts by the end of 2014. The EPC contract establishes that Westinghouse is responsible for initiating and overseeing the procurement and construction of all AP1000 equipment and components. Therefore, DEF is required to work with Westinghouse on disposition of all current contracts. To date, DEF has finalized contract resolution with two vendors—Mangiarotti and Tioga/IBF.

Mangiarotti was under contract to provide four long lead components (Accumulator Tanks, Core Make-Up Tanks, Pressurizers, and PRHR Heat Exchangers) for the two units. The company made the decision to cancel the contract for these components rather than finalize construction and maintain or divest the equipment. Commission audit staff reviewed the analysis and documentation supporting this decision and did not identify issues with its process. The company management states that [REDACTED].

In late 2013, the company requested through Westinghouse that Tioga/IBF discontinue the fabrication of the Rector Coolant Loop piping. In January of 2014, DEF accepted an agreement to cancel this contract. The company's analysis determined that the agreement was the most reasonable option given the potential storage costs and prospects in the re-sale market. DEF's analysis determined that the decision to cancel the contract resulted in a [REDACTED]. Commission audit staff reviewed the company's documents and did not identify issues with its process.

The company is still in negotiations with Westinghouse for the disposition of the remaining long-lead equipment. The company anticipates this process will continue through the remainder of 2014 and into 2015. DEF states it will continue to analyze all options to determine the best course of action for the remaining equipment.

## **2.2 LEVY PROJECT CONTROLS AND OVERSIGHT**

### **2.2.1 DUKE ENERGY'S NUCLEAR DEVELOPMENT ORGANIZATION**

In 2013, the company made minor changes to its Nuclear Development group. This group was formed in 2012 with the merger of Duke Energy and Progress Energy. Fundamentally, the organizational FTEs have remained consistent during the period. However, the company has more recently reduced personnel in the areas of Licensing, Operational Readiness and Project Management. The company states that the staffing will remain consistent through 2015. The organization allocates staffing resources to the Levy Project as necessary. Overall, the company states that the reduction in staffing hours billed to the Levy Project during 2013 are due to reduced activities related to the project. The company anticipates that this trend will continue.

### **2.2.2 INTERNAL AUDITS AND QUALITY ASSURANCE REVIEWS**

No internal audits of the Levy project were conducted during 2013 by DEF's Internal Audit Services Department. As in past years, the DEF's Audit Services Department employs a planning process to identify those areas to be audited in the upcoming year based on relative risk. As of this report, the company's Audit Services Department does not plan to conduct any Levy-specific audits in 2014, based on the perceived low-risk of the current Levy COL-specific project plan.

The Nuclear Oversight Quality Assurance group completed or supported eleven surveillance and oversight reviews of Levy activities during 2013. These reviews addressed areas such as long-lead equipment construction, contractor activities, and engineering development; they included a combination of in-house evaluations and joint Nuclear Procurement Issues Committee (NUPIC) assessments. Commission audit staff notes that there were not significant issues identified within these reports that impact the current project scope.

### **2.2.3 CHANGES TO CONTRACTS AND CONTRACT MANAGEMENT**

The company stated that due to cancellation of the Levy project, cost estimates were adjusted accordingly. Updated estimates were provided in DEF's May 2014 NCRC testimony. However, COL-related cost estimates were not included in testimony, pursuant to the 2013 Settlement Agreement excluding those costs. The company states that the remaining cost estimates are necessary to manage long-lead equipment and other costs associated with the LNP EPC Agreement. Additionally, DEF notes that any additional credits or expenditures related to the cancellation of the EPC contract are unknown at this time.

### **2.2.4 RISK AND MITIGATION**

DEF's LNP project management continues to monitor the risks associated with completing the receipt of the COL. The team continues to evaluate, identify, review, and monitor project risks and mitigation strategies via project team involvement. The company documents and monitors these risks through a risk register oversight process. To date, the project team has identified risks associated with the NRC Waste Confidence process and AP1000 design issues. Audit staff reviewed the risk assessment and mitigation strategies for the period and determined that the company continues to monitor accordingly.

### **2.2.5 CHANGES TO CONTRACTS AND CONTRACT MANAGEMENT**

In 2013, the company initiated or modified 14 contracts. These contracts and work authorizations were necessary to continue the efforts to support the COL application and process and the necessary environmental approvals. In total, the company initiated an additional [REDACTED] million in contracts to support these efforts. Overall, the company spent approximately [REDACTED] million on these efforts in 2013. Audit staff reviewed contract documentation to ensure that the company complied with its contract procedures, and found no issues.

## **3.0 CRYSTAL RIVER 3 EXTENDED POWER UPRATE PROJECT**

### **3.1 EPU KEY PROJECT DEVELOPMENTS**

#### **3.1.1 EPU PROJECT CLOSE-OUT**

Duke Energy Florida's February 2013 decision to retire and decommission Crystal River Unit 3 also caused the company to cancel the Extended Power Uprate (EPU) project. Soon after the decision, DEF notified the Nuclear Regulatory Commission (NRC) to cease licensing activities, and withdrew its EPU License Application Request.

After the announcement, the EPU Project Team focused on completing necessary project activities and demobilizing contractors from the site. DEF notified EPU vendors with open contracts and work orders to suspend activities immediately. Each contractor was instructed to assess the status of open contracts and work orders to negotiate closeout options.

In 2014, the Investment Recovery Project (IRP) team continues to dispose of CR3 assets, including EPU-related assets. The company will credit all EPU asset recovery dollars to the Nuclear Cost Recovery Clause. DEF expects the EPU portion of the investment recovery project to be completed by December 31, 2014. Currently, the CR3 portion of the project is projected to be complete by April 30, 2015. All remaining CR3 assets will be handled according to standard rate recovery process. Commission audit staff only examined the process for EPU costs during this review.

#### **3.1.2 EPU PROJECT CLOSEOUT PLAN AND PROJECT COSTS**

The initial Project Closeout Plan was formalized in March 2013. Demobilization of project vendors and the release of EPU Engineering Design, Project Management, and support staff was completed by the end of March 2013. Only the EPU Project Manager and Project Specialist remained to complete EPU closeout work and ensure EPU surplus equipment was maintained until transfer to the IRP.

DEF closed vendor contracts and work orders based upon the contract status, the percent of work completed, the receipt of partial deliverables and the feasibility of receiving ready-to-ship orders. The company also considered whether to terminate or complete pending work, and whether full or partial price payments should be made. DEF reported that all EPU contracts were resolved during 2013 as scheduled, with the exception of one small preventive maintenance contract. This contract remains open to provide periodic maintenance and testing of the condensate pump motor shafts to ensure the marketability of these assets.

Audit staff reviewed EPU contract decisions and documentation associated with the 2013 closeout. Amendment decisions and dollar amounts were documented for each contract. Documentation for each contract described unperformed scope, scope reductions, deductions for scrap value, and other considerations used in negotiating the full and final payment for closeout. Audit staff believes the decisions DEF made in closing EPU contracts during 2013 were specific to each contract's status, provided necessary credits where applicable, and gave reasonable consideration to the potential impact on customers.

The company noted that the 2013 EPU project cost estimate was revised to \$14.1 million after the retirement decision. This estimate included: pre-retirement EPU

implementation, closeout activities, estimated contract and purchase order cancellation, and asset preservation costs. After the completion of 2013 activities, the actual EPU project costs were \$11.2 million.

### **3.1.3 Establishment of the Decommissioning Transition Organization and Investment Recovery Project**

By letter dated February 20, 2013, DEF notified the NRC that it had ceased operations at CR3, and all fuel had been permanently removed from the reactor vessel. DEF then established the Decommissioning Transition Organization to manage the future decommission of CR3. One of the first tasks for the organization was to develop a Post-Shutdown Decommissioning Activities Report to submit to the NRC.

An important task of the Decommissioning Transition Organization is to dispose of the remaining plant assets. To complete this process, an Investment Recovery Project (IRP) organization was established in August 2013. The IRP team is responsible for plant-wide disposition of both CR3 and EPU project assets. The IRP organization is independent of the Decommissioning Transition Organization but works closely with it to identify, re-deploy, and dispose of surplus assets.

Procedure AI-9010, titled *Conduct of CR3 Investment Recovery*, governs the disposition of CR3 and EPU assets through the IRP. This procedure outlines requirements for asset pricing reviews and approvals, record keeping, and disposition of CR3 assets during decommissioning. In addition, it provides guidance for the dispositioning of assets both within and outside the company and its affiliates. Asset disposition documents are completed for both CR3 and EPU assets to ensure proper credit is returned to each project.

In February 2014, DEF implemented the CR3 IRP Project Execution Plan. The plan provides guidance regarding the IRP scope, schedule, costs, responsibilities, and project implementation. According to the plan, the primary objective is to maximize the return to customers and shareholders on CR3 surplus assets through asset identification, redeployment, and disposition. The plan notes that IRP disposition activities are scheduled to be completed in April 2015, and the total project is estimated to cost approximately \$3.4 million; a portion of which will be EPU related.

### **3.1.4 Investment Recovery Process for CR3 Asset Disposition**

The Project Execution Plan documents the systematic disposal process and timeline for completing asset disposition. The Baseline Schedule supports the timing for completing major milestones within the project. Critical dates for beginning and completing key project activities are also forecast to measure project performance.

Large EPU components will be dispositioned separately due to their unique design, use, and application. According to the Project Execution Plan, marketing of these components through internal transfer began in October 2013, and was scheduled to complete in April 2014. The marketing of these large components through external means commenced in November 2013 and is scheduled to complete in August 2014. These components include:

- ◆ Point of Discharge Cooling Tower,
- ◆ Low Pressure Turbines,
- ◆ Moisture Separator Reheaters,
- ◆ High Pressure Turbines,



- ◆ Main Generator and Exciter, and
- ◆ Feed Water Heaters

DEF confirmed that the Point of Discharge Cooling Tower bid, begun in December 2013, was completed in April 2014. The bid event was finalized in February 2014, proposals were reviewed and evaluated, and final negotiations were conducted with the high bidder. Negotiations concluded on April 30, 2014, with the purchase of the entire POD package. DEF stated that the revenues from the sale will be returned to the POD project and credited to customers through the Nuclear Cost Recovery Clause.

The Project Execution Plan states that large asset distribution efforts have historically returned a fractional percentage of the overall purchase price of assets. Therefore, it is advantageous to first seek an internal transfer of useful equipment, and then use other alternatives. In order of priority after the use of the internal transfer, other options used by the IRP are: market to other utilities, use third-party resellers, and lastly sell for salvage and scrap value.

The benefits of internal transfer versus external dispositioning can be seen in an example of two equipment dispositions completed during 2013 and early 2014. Two pieces of EPU equipment, with an original purchase value greater than \$50,000, were dispositioned by the company. One item was transferred internally to a Duke affiliate, in December 2013, and the other was sold externally in March 2014. The internally transferred item was a 750 KVA transformer disposed of for 88.3 percent of the original purchase value. The externally dispositioned 7.5 Ton Gantry Crane sold for 13 percent of the original purchase value. This illustrates why DEF's first choice for dispositioning surplus assets is through internal transfer.

The disposition of less-specialized EPU assets is being completed through six "tranches" of equipment. Each tranche represents a different value range of equipment. **Exhibit 2** provides a summary of the six asset tranches for the EPU project.

EPU Asset Tranches for Disposition			
Criteria	Dollar Value	Items	Amount
Tranche 1	>\$10,000	91	\$6,306,465
Tranche 2	>\$5,000 <\$10,000	5	26,417
Tranche 3	>\$2,500 <\$5,000	7	22,506
Tranche 4	>\$1,000 <\$2,500	1	2,078
Tranche 5	>\$500 <\$1,000	3	2,449
Tranche 6	<\$500	0	0
Total		107	\$6,359,915

**EXHIBIT 2**

Source: DEF Response to DR-1.13

Tranche 1 has the largest number of items by far and is the largest in total value. However, IRP reported that no EPU equipment from any tranche has been dispositioned to date. Investment Recovery management noted that miscellaneous small equipment, a storage tent, and a carrier container of small tools and consumables were dispositioned, totaling approximately \$45,000.

IRP has experienced challenges in matching equipment uniquely designed for the CR3 EPU project with DEF affiliates and other potential electric utility customers. The market for this specialized equipment is greatly limited by the number of potential buyers having operational

conditions that match the equipment design and use. In some cases the equipment can be modified for use by a prospective buyer. However, additional modification costs may deter potential buyers and reduce market acceptance.

An additional challenge for IRP is to disposition EPU equipment as quickly as reasonably possible due to ongoing maintenance costs, storage costs, and potential damage from inclement weather. Each month certain EPU equipment items must be maintained to ensure the equipment remains under vendor warranty.

Some surplus equipment is stored within the site compound, but is exposed to outside weather elements. Other equipment is stored in protective storage tents, which provide limited protection in heavy storm and hurricane conditions. In the event of a hurricane, or other large wind event, this equipment would have to be moved to hurricane-proof permanent storage, at additional cost to the project. The longer these assets remain in storage the more these costs will rise. Therefore, DEF is aggressively pursuing completion of the IRP by March 2015.

Based on audit staff's review of IRP governance documents and the Project Execution Plan, audit staff believes the IRP process and plan provide adequate and reasonable guidance for completing the disposition of EPU assets. Audit staff makes no assertion regarding other CR3 assets outside the EPU project. Continued management review and oversight should ensure that IRP processes are implemented as planned and that the project is successfully completed.

## **3.2 EPU PROJECT CONTROLS AND OVERSIGHT**

### **3.2.1 EPU INVESTMENT RECOVERY CONTROLS AND OVERSIGHT**

Investment Recovery Project procedure AI-9010 and the CR3 IRP Project Execution Plan are the primary governance documents for completion of the project. The PEP document provides reference to Project Management Center of Excellence standards applicable to the project procedures and controls. Included are guidelines and descriptions of the duties and responsibilities of each project member.

The IRP Project Sponsor is the General Manager-Decommissioning, functioning as the primary customer of the project team. The IRP team functions at the request of the Sponsor, and success is determined by the satisfaction of the Sponsor. The Manager-Nuclear Projects reports directly to the General Manager Decommissioning and directs the IRP effort to complete the disposition of surplus assets.

Overall project authority and responsibility for executing the IRP successfully rests with the Project Manager. This manager is responsible for planning, executing, controlling, and closing the project. This is largely completed through the members of the Project Team by implementing the PEP. The Project Manager reports to the Manager Nuclear Projects and interfaces with other organizational stakeholders involved in the IRP process. Weekly and monthly status reports are developed and issued to project team members, DEF management, and the Project Sponsor, allowing for project results and performance measurements to be vetted.

The Supply Chain Organization is an important resource for IRP asset dispositions, and one of the largest contributors to the Project. However, another key role is performed by Project

Controls. The Project Controls group prepares regular reviews reporting on project schedule updates, cost estimate changes, and project performance. Project Controls interfaces with CR3 station management scheduling, prepares schedule update summaries, evaluates schedule variance corrective actions, ensures forecast accuracy, and completes project cash flow analysis.

Project Controls is responsible for the integrated schedule, weekly schedule review meetings, schedule updates, and change trends within the IRP. This group performs tracking, analyzing, and auditing of the Earned Value metrics, including: schedule variance, cost variance, project estimate at completion, and project estimate to completion. Project Controls also issues weekly and monthly reports to the Project Manager and key stakeholders, keeping management and stakeholders informed of the current project status.

EPU-related assets are monitored by the EPU Project Specialist, who ensures inspections and maintenance are completed as required to maintain equipment within vendor warranty specifications. The IRP is responsible for conducting risk assessments on the disposal of assets through its governance processes.

Risk Management is performed in accordance with established DEF procedures, using the currently available Risk Register template. Risk trending tools are used to monitor, control, and communicate the status of project risks. Project risks are updated and reported monthly in project review meetings.

Audit staff believes that the governance and reporting processes DEF has implemented for the IRP provide reasonable monitoring, tracking, and reporting mechanisms to manage project risk. Further, these processes help guide and direct the EPU investment recovery effort to successfully dispose of EPU project assets.

### **3.2.2 2013 INTERNAL AUDITS AND QUALITY ASSESSMENTS**

Due to the cancellation of the CR3 and EPU projects in February 2013, no contractor or quality assurance evaluations were completed. Two audits were completed during 2013, and an IRP self-assessment was conducted during first quarter 2014.

An October 2013 Corporate Audit Services audit reviewed Decommissioning Transition Organization effectiveness, coordination, and management of the initial stage of the project. The report concluded that processes to monitor decommissioning costs are sufficient and provide for effective controls to ensure proper accounting of decommissioning costs.

One low priority issue was identified for the remaining open contracts. Management agreed to implement the recommended changes and developed an action plan for implementation. The action plan was implemented by November 30, 2013.

A second audit was completed in August 2013 by the Duke Energy Nuclear Oversight Department. This fleet-wide continuous assessment review examined fleet nuclear upgrades during the period June 2011 through March 2013.

DEF stated that this was the only Nuclear Oversight assessment that encompassed the CR3 EPU project activities during 2013, and that there were no findings directly attributed to the EPU project. Further, due to project cancellation, no actions were taken within the project as a result of the assessment.

In March 2014, the DEF Investment Recovery Project completed a self-assessment of its compliance and implementation with the AI-9010 governance document issued October 21, 2013. The assessment also evaluated the process used to disposition items through IRP, by reviewing documentation in the current IRP Share Point Site.

Results of the self-assessment stated that there was no deficiency found in the comparison of the IRP Project Execution Plan and the AI-9010, and that the Plan as written complies with the requirements of the AI-9010 procedure.

However, the assessment identified that Investment Recovery Guidance Document (IRGD-001) referenced in the PEP was in draft form and needed to be completed. Audit staff notes that this document was provided in DEF's May 1, 2014 testimony.

Further, the assessment identified inconsistencies in: (1) completion of necessary documentation and appropriate approvals prior to the asset disposition, (2) need for a method to verify assets are being offered to Duke affiliates prior to non-Duke Energy affiliates, (3) need for a verification that all documentation is complete prior to material being dispositioned, and (4) that all transfers of equipment are approved and executed with a completed AI-9010 Attachment 1 form to document the transfer. Audit staff believes that monitoring assessment results should continue through the duration of the project.