

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 090007-EI
FLORIDA POWER & LIGHT COMPANY**

**AUGUST 28, 2009
(REVISED SEPTEMBER 25, 2009)**

ENVIRONMENTAL COST RECOVERY

**PROJECTIONS
JANUARY 2010 THROUGH DECEMBER 2010**

TESTIMONY & EXHIBITS OF:

R. R. LABAUVE

DOCUMENT NUMBER DATE

09944 SEP 25 8

FPSC-COMMISSION CLERK

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **TESTIMONY OF RANDALL R. LABAUVE**

4 **DOCKET NO. 090007-EI**

5 **AUGUST 28, 2009**

6 **(REVISED SEPTEMBER 25, 2009)**

7

8 **Q. Please state your name and address.**

9 **A. My name is Randall R. LaBauve and my business address is 700**
10 **Universe Boulevard, Juno Beach, Florida 33408.**

11 **Q. By whom are you employed and in what capacity?**

12 **A. I am employed by Florida Power & Light Company (FPL) as Vice**
13 **President of Environmental Services.**

14 **Q. Have you previously testified in this docket?**

15 **A. Yes, I have.**

16 **Q. What is the purpose of your testimony in this proceeding?**

17 **A. The purpose of my testimony is to present for Commission review and**
18 **approval a new environmental project – The National Emission Standards**
19 **for Hazardous Air Pollutants (NESHAP) Information Collection Request**
20 **(ICR) Compliance Project. Additionally, my testimony discusses the**
21 **expansion of the Manatee Temporary Heating System (MTHS) Project**
22 **originally filed in this docket on April 13, 2009, to cover the Cape**
23 **Canaveral Plant (PCC). Finally, my testimony provides a brief update on**
24 **the St. Lucie Cooling Water System Inspection and Maintenance Project,**

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FLORIDA PUBLIC SERVICE COMMISSION

1 approved in Docket No. 070007-EI, Order No. PSC-07-0922-FOF-EI,
2 issued on November 16, 2007.

3 **Q. Have you prepared, or caused to be prepared under your direction,**
4 **supervision, or control, an exhibit in this proceeding?**

5 **A. Yes. I am sponsoring the following exhibits:**

- 6 ● RRL-8 – NESHAP ICR Public Notice
- 7 ● RRL-9 – Electric Utility Steam Generating Unit Hazardous Air
8 Pollutant Information Collection Effort Burden Statement - Part B
- 9 ● RRL-10 – Florida Department of Environmental Protection (FDEP)
10 Industrial Wastewater Facility (IWWF) Permit Number FL0001473
11 for Plant Cape Canaveral (PCC)
- 12 ● RRL-11 - PCC Manatee Protection Plan (MPP)
- 13 ● RRL-12 – U.S. Fish and Wildlife Service (USFWS) letter to FPL
- 14 ● RRL-13 – Florida Fish and Wildlife Conservation Commission's
15 (FWC) "FWC Staff Report For Florida Power and Light Company
16 – Cape Canaveral Energy Center (CCEC)"
- 17 ● RRL-14 – Manatee Heating System Conceptual Location of
18 Pumps and Heater

19

20 **NESHAP ICR Compliance Project**

21

22 **Q. Please describe the law or regulation requiring the NESHAP ICR**
23 **Compliance Project.**

1 A. The Environmental Protection Agency (EPA) regulates Hazardous Air
2 Pollutants (HAPs) through authority granted to the agency under Section
3 112 of the Clean Air Act (CAA). EPA promulgates NESHAP emission
4 standards under 40 CFR Part 63 for stationary source categories. In
5 setting HAP emission limitations and performance standards for source
6 categories EPA reviews available information and where additional
7 information is needed EPA issues an ICR to affected sources under
8 authority granted to it by Section 114 of the CAA.

9

10 The ICR for NESHAP for coal and oil-fired utility steam generating units
11 was proposed by the EPA and noticed in the Federal Register on July 2,
12 2009. The NESHAP ICR Public Notice is included as Exhibit RRL-8.
13 EPA has proposed to require survey information, fuel analyses, and
14 emission stack testing to determine whether coal and oil-fired electric
15 utility steam generating units emit HAPs listed under CAA section 112(b).

16 FPL anticipates that the final ICR will be published in the Federal
17 Register by December of 2009. To comply with the EPA deadlines, FPL
18 will need to complete all required activities within six months of issuance
19 of the final ICR. To comply with the March 13, 2007 D.C. Circuit Court of
20 Appeals decision on Maximum Achievable Control Technology standards
21 and the court's vacatur of the Clean Air Mercury Rule, EPA has proposed
22 the NESHAP ICR to collect sufficient information to identify HAP emission
23 standards for the best performing sources for coal and oil-fired utility
24 steam generating units.

- 1 **Q. Why has FPL proposed the NESHAP ICR project prior to EPA**
2 **publishing a final ICR?**
- 3 **A. FPL anticipates that EPA will propose a final ICR for coal and oil-fired**
4 **utility steam generating units this year as a result of the U.S. Court of**
5 **Appeals decision, which requires that EPA gather sufficient data prior to**
6 **setting a new standard and also as a result of the Court's vacatur of the**
7 **Clean Air Mercury Rule, which requires that EPA establish standards for**
8 **mercury and nickel emissions from coal and oil-fired steam electric**
9 **generating units. As I've stated earlier, the proposed ICR would require**
10 **emission testing and fuel analyses to be completed within six months of**
11 **the final ICR at 471 plants across the U.S. for which there exists a limited**
12 **number of companies that have demonstrated expertise in the analyses**
13 **specified by EPA. FPL believes it must begin its plan to respond to a final**
14 **ICR due to the near certainty that the ICR will be issued, due to the short**
15 **time frame in which FPL would be required to respond, and also due to**
16 **the limited availability of contractors needed for emission testing and fuel**
17 **analyses.**
- 18 **Q. Does FPL plan to file comments with EPA regarding the ICR?**
- 19 **A. Yes. FPL will file specific comments related to several aspects of the**
20 **proposal including the scope of the information request and extensive**
21 **proposed testing, the requirement to test sources which will be replaced,**
22 **and the relatively short proposed timelines for compliance with the ICR.**
- 23 **Q. How will the NESHAP ICR affect FPL?**
- 24 **A. FPL currently owns and operates 17 oil-fired electric utility steam**

1 generating units and owns a portion of 3 coal-fired electric utility steam
2 generating units that are the subject of the proposed ICR. EPA's
3 proposed ICR requires that FPL provide historical baseline operating and
4 fuel quality data for all of its existing coal and oil-fired electric utility steam
5 generating units for its survey and also provide additional data obtained
6 through fuel sampling and stack emission testing for a portion of the
7 affected units. For its co-owned coal-fired units FPL will require the
8 operators of those units to complete reporting requirements and to
9 arrange for fuel and emission testing where required by the ICR under the
10 terms of its operating agreements. FPL would be responsible for its share
11 of costs for compliance with the ICR.

12 **Q. Please describe the activities FPL will initiate as a result of this**
13 **project.**

14 **A.** The information collection for this ICR consists of two components: 1) the
15 preparation, submittal, and quality assurance check of data from all coal-
16 and oil-fired units and 2) the emission stack testing, fuel testing, and
17 quality assurance of data for units and facilities identified in the ICR
18 Statement of Burden – Part B, which is included as Exhibit RRL-9.

19
20 As to the first component, EPA has proposed to collect the data required
21 for all affected units through use of an electronic survey. FPL is currently
22 evaluating resource needs associated with the required data collection,
23 submittal and quality assurance. FPL has identified that it will need
24 contractor services to assist in the collection and submittal of the first

1 component of the ICR to comply with the EPA required submittal of survey
2 results within 3 months of the published date of the final ICR.

3

4 For the second component of the ICR, FPL will use outside consulting
5 firms for emission stack testing activities, required coal and oil testing for
6 HAPs identified in the ICR, and for the data entry and quality assurance of
7 test data submitted to EPA for the ICR. Results of stack testing and fuel
8 analyses must be submitted to EPA within 6 months of the final published
9 date of the ICR.

10 **Q. What are the compliance dates for this project?**

11 A. Comments on the proposed ICR must be filed by August 31, 2009.
12 Based on promulgation of previous EPA ICRs, FPL anticipates that the
13 EPA's proposed NESHAP ICR will be approved by the Office of
14 Management and Budget and published in the Federal Register by
15 November or December of 2009. Compliance deadlines for submittal of
16 information would likely be February or March of 2010 for submittal of
17 survey information and May or June of 2010 for stack emission testing
18 and fuel analyses.

19 **Q. Is FPL recovering through any other mechanism the costs for
20 NESHAP ICR Project for which It is petitioning for ECRC recovery?**

21 A. No. FPL is only requesting recovery of incremental activities associated
22 with NESHAP ICR Project compliance with EPA requirements. Costs
23 associated with similar activities required to comply with existing state and
24 federal regulations are not included in FPL's estimates for this project.

1 **Q. Has FPL estimated the cost of the NESHAP ICR Project?**

2 **A. The total cost of the project will depend on the requirements established**
3 **in the final NESHAP ICR published in the Federal Register. To estimate**
4 **the project costs for the NESHAP ICR, FPL has preliminarily relied upon**
5 **the EPA estimates from the ICR Statement of Burden- Part B for those**
6 **activities which FPL anticipates will be performed by outside firms. Costs**
7 **for activities identified in the ICR which FPL expects to be completed by**
8 **in-house resources have not been included in estimates and FPL does**
9 **not plan to recover those costs through the ECRC NESHAP ICR Project.**
10 **Specific details related to EPA's estimates for costs are provided in the**
11 **ICR Statement of Burden – Part B. FPL has estimated a preliminary**
12 **ECRC NESHAP ICR project cost of approximately \$3.3 million for**
13 **contractor and professional services required by the project. Because of**
14 **EPA's tight compliance deadlines in the proposed rule, FPL anticipates**
15 **that all of the costs associated with the ICR Project will be incurred in**
16 **2010.**

17 **Q. How will FPL ensure that the costs incurred are prudent and**
18 **reasonable?**

19 **A. Consistent with our standard practice for all contractor services**
20 **procurements, FPL proposes to competitively bid stack emission testing,**
21 **fuel analyses, and quality assurance activities to ensure costs for**
22 **activities performed by outside firms are prudently incurred. FPL will**
23 **revise project estimates as specific costs become available through**
24 **contractor specific bids and costs.**

1
2 **Manatee Temporary Heating System Project – Cape Canaveral Plant**

3
4 **Q. Please briefly describe FPL's filing dated April 13, 2009, requesting**
5 **approval of the MTHS Project.**

6 **A. On April 13, 2009, FPL petitioned and I filed testimony in this docket**
7 **requesting recovery of the MTHS Project, for the installation of an electric**
8 **heating system at the Riviera Plant (PRV) in 2009, in order to provide a**
9 **"manatee refuge" by discharging warm water when necessary into the**
10 **manatee embayment area until PRV is converted to the Riviera Beach**
11 **Next Generation Clean Energy Center. The MTHS Project will ensure**
12 **that FPL complies with its PRV MPP, which is required by Specific**
13 **Condition 9 (originally numbered 13) to the IWWF Permit Number**
14 **FL00001546, issued by the FDEP for PRV on February 10, 2004.**

15
16 Primary activities integral to the MTHS Project at PRV include installing
17 the pipes, pumps, and heater, interconnection to the FPL power system,
18 and testing and operating the system.

19 **Q. Was FPL considering the need for a temporary heating system at**
20 **PCC at the time of your April 13, 2009 filing?**

21 **A. Yes. In my testimony dated April 13, 2009, I mention that the IWWF**
22 **permit and the MPP for PCC have similar requirements for maintaining**
23 **water temperatures to protect manatees and that FPL would amend its**
24 **MTHS Project to include the costs for a system at PCC. However, FPL's**

1 plans for PCC were not sufficiently finalized at that time to include them in
2 the petition or my testimony.

3 **Q. Please briefly describe FPL's proposed project at PCC.**

4 A. In September 2008, FPL received a Determination of Need from this
5 Commission to undertake a major modernization project at PCC, which
6 will convert the existing conventional steam units into a highly efficient,
7 clean-burning, gas-fired combined cycle unit (the "Modernization Project")
8 to be named the Cape Canaveral Next Generation Clean Energy Center
9 (CCEC).

10

11 The activities at PCC will include the installation of an electric heating
12 system, pumps, piping, interconnection to the FPL electrical distribution
13 system testing and operating the system in 2010, monitoring the physical
14 conditions of the manatee embayment area, monitoring manatee
15 distribution and abundance and engaging with jurisdictional agencies to
16 begin long-term planning to reduce potential adverse affects from any
17 future reduction of warm water production at the CCEC.

18

19 Since the original MTHS filing, the activities under the MTHS Project at
20 PCC have been better defined since FWC proposed its Conditions of
21 Certification for the project in August 2009.

22 **Q. Please describe the environmental law or regulation requiring the**
23 **MTHS Project at PCC.**

24 A. FPL is proposing the MTHS Project at PCC in order to ensure compliance

1 with PCC's existing MPP during the construction of CCEC, affirmatively
2 respond to the USFWS letter of June 24, 2008, and comply with FWC's
3 proposed Conditions of Certification for the CCEC.

4
5 The FDEP issued IWWF Permit Number FL0001473 to FPL's PCC on
6 August 10, 2005. Specific Condition 9 of the IWWF permit states that
7 "the Permittee shall continue compliance with the facility's MPP approved
8 by the Department on December 21, 2000." The MPP requires FPL to
9 provide warm water for manatees during winter months when certain
10 weather conditions are present. FPL will apply for a renewal of the PCC
11 IWWF permit in late January 2010.

12
13 The IWWF permit containing Specific Condition 9 is included as Exhibit
14 RRL-10 and FPL's MPP for PCC is included as Exhibit RRL-11. Note that
15 the Manatee Protection Plan refers to "Specific Condition 13," which has
16 been renumbered as Specific Condition 9 in the current IWWF permit.

17
18 On June 24, 2008, the FWS provided comments in a letter to FPL
19 regarding the Modernization Project. The FWS indicated that measures
20 would be necessary to protect the manatees from cold water impacts
21 during the transition period of the Modernization Project. A copy of the
22 FWS letter to FPL is included as Exhibit RRL-12. Further, the manatees
23 are protected by the federal Marine Mammal Protection Act of 1972 (16
24 U.S.C. 1361, et. seq.) and the Endangered Species Act of 1973 (16

1 U.S.C. 1531, et. seq.). Additionally, the Indian River Lagoon is
2 considered by the USFWS as Critical Habitat for the manatee (42 FR
3 47840).

4
5 As a commenting agency to the Florida Electrical Power Plant Siting Act
6 Site Certification process, FWC proposed Conditions of Certification
7 regarding manatee protection to be required in the final Conditions of
8 Certification. FWC subsequently wrote its agency report ("FWC Staff
9 Report for Florida Power and Light Company – Cape Canaveral Energy
10 Center (CCEC)") and filed it with the FDEP as part of the FPL CCEC Site
11 Certification Application process. In the report, FWC has proposed
12 Conditions of Certification regarding protections for the manatees in the
13 interim period between PCC decommissioning and CCEC post-
14 commercial operation, which is September 2010 through March 2015.

15
16 The Conditions of Certification include specific actions FPL must take in
17 exchange for FWC's approval of CCEC. The proposed Conditions of
18 Certification address the Interim Warm-Water Refuge Heating System for
19 manatee protection, environmental monitoring, biological monitoring, and
20 the development of a long-term manatee strategy. A copy of the "FWC
21 Staff Report for Florida Power and Light Company – Cape Canaveral
22 Energy Center (CCEC)" is included as Exhibit RRL-13.

23 **Q. How has FPL complied with the PCC MPP in the past?**

24 **A. FPL has successfully complied with the PCC MPP in the past by**

1 discharging warm water from plant operation into the Indian River Lagoon
2 via two once-through cooling water discharge structures (one discharge
3 structure per unit). As noted in the MPP, at times when the ambient water
4 temperature has fallen below 61°F as measured at the plant intake, PCC
5 has endeavored to operate in a manner that maintains the water
6 temperature in an adequate portion of the discharge area, for at least one
7 unit, at or above 68°F, until such time as the intake water temperature
8 reached 61°F, unless otherwise authorized by the Bureau of Protected
9 Species Management (BPSM) and the USFWS, or unless safety or
10 reliability of the plant would have been compromised.

11 **Q. When will FPL begin the MTHS Project at PCC?**

12 A. FPL will begin the MTHS Project at PCC upon receipt of the CCEC Site
13 Certification determination from the Siting Board. FPL's current MTHS
14 Project schedule assumes the Siting Board determination will be received
15 January 19, 2010.

16 **Q. Why does the heating system at PCC need to be installed in 2010?**

17 A. Decommissioning of PCC is scheduled for April 2010. To comply with
18 FWC's conditions of certification for CCEC and allow time for testing prior
19 to the winter manatee season, FPL must install the heating system by
20 September 15, 2010.

21 **Q. What is a manatee embayment area?**

22 A. The term "manatee embayment" refers to the PCC intake canal,
23 beginning at the western most extent of the canal and including all waters
24 within the canal between the peninsula and the southern shoreline up to

1 the southern shoreline's eastern-most point. The embayment opens into
2 the Indian River Lagoon. The location of the manatee embayment is
3 shown on Exhibit RRL-14.

4 **Q. What is the significance of FPL providing warm water to the**
5 **embayment area?**

6 A. The Florida manatee, a subspecies of the West Indian manatee found
7 only in the southeastern United States, is listed as endangered under both
8 the U.S. Endangered Species Act and Florida state law. Most manatees
9 congregate at confined warm-water refuges when coastal water
10 temperatures begin to fall below 68°F. The exact threshold at which
11 manatees succumb to cold and die is uncertain and can vary between
12 individual manatees. However, when extremely cold winter temperatures
13 occur, large numbers of manatees may die or have their health impaired.
14 Many of the natural warm water habitats historically used by manatees are
15 no longer available to them. The outflows from power plants, like PCC,
16 have provided a substitute for these lost natural resources.

17
18 Manatees are known to inhabit the Indian River Lagoon year-round, and
19 they congregate at the PCC discharge area during colder temperatures
20 because of the warm water discharged from the plant.

21 **Q. How many manatees can be found in Indian River Lagoon and the**
22 **discharge area?**

23 A. On February 6, 2009, 540 manatees were sighted in the vicinity of PCC
24 during an aerial survey.

1 **Q. Why does FPL now need a different heating source for PCC?**

2 A. Implementing the Modernization Project will require that the existing PCC
3 units be dismantled and substantially rebuilt. During this construction
4 period, the units will not be available to provide warm water for
5 compliance with the MPP. The current schedule for the Modernization
6 Project requires that the existing conventional steam units be taken out of
7 service no later than April 2010 to begin the conversion.

8 **Q. Please describe the heating system to be installed at PCC.**

9 A. The heating system to be installed at PCC will include a 30-million Btu per
10 hour electric heating system including pumps, piping, and electrical
11 equipment. The electric heating system will be located to discharge warm
12 water into the western end of the intake canal, where the water depth is
13 approximately 11.5 to 14 feet deep. The intake for the system will be
14 located approximately 1,000 feet east of the system discharge. When the
15 ambient water temperature falls below an established threshold, sea
16 water will be pumped from the intake location through an inlet pipe to the
17 heater, and the heated water will be discharged into the west end of the
18 intake canal, which will serve as the interim period manatee embayment
19 area. The heating system is predicted to provide approximately 2.05
20 acres of water at or above 68°F during conditions under which heating is
21 needed. A conceptual location of the heating system is included in Exhibit
22 RRL-14.

23 **Q. How did FPL determine the size of the electric heater?**

24 A. To determine the size of the heater required to comply with the MPP

1 obligation, FPL retained an environmental services firm (Golder
2 Associates) to develop a computer model to calculate the required
3 thermal outputs of the heating system.

4 **Q. What conclusions did FPL reach regarding the alternatives for
5 providing warm water to manatees at PCC?**

6 A. As I discussed earlier, FPL will need a heating system at PCC because
7 there will be no other viable source of warm water for manatees during
8 the construction of the Modernization Project. All alternatives considered
9 included a boiler or heater as part of an intake and discharge system that
10 could be installed and operated to provide a sufficient warm water area.
11 After studying commercially available system components, it was
12 concluded that the heating system chosen was the best alternative for
13 FPL to pursue, resulting in the most cost effective means to produce
14 warm water for the manatees.

15 **Q. What will happen to the MTHS at PCC when the modernization is
16 completed in 2013?**

17 A. The PCC MTHS is specifically required during the modernization process.
18 FPL will evaluate the disposition of the MTHS at PCC as the
19 modernization process is being completed. This evaluation will take into
20 account providing the maximum value for FPL's customers while
21 providing the desired environment for the manatees.

22 **Q. What resources does FPL anticipate will be needed to operate the
23 MTHS at PCC?**

24 A. Based on FPL's earlier work on the MTHS at PRV, FPL anticipates using

1 two operators. These operators will be incremental employees whose
2 sole responsibility will be to operate, maintain, and repair the MTHS and
3 these operators will be trained on the operation and maintenance of the
4 MTHS at PCC. Each operator will work separately in a twelve-hour shift
5 during weather critical days. Furthermore, FPL will develop a Best
6 Management Practices (BMP) manual that will address, among other
7 topics, operations, maintenance, troubleshooting, and repair of the MTHS
8 at PCC.

9 **Q. Please describe the other Conditions of Certification relevant to the**
10 **MTHS project at PCC.**

11 A. As found in the environmental monitoring section of the proposed
12 Conditions of Certification for the CCEC project, FWC requires FPL to
13 monitor the physical conditions in the manatee embayment area. FWC
14 also requires FPL to monitor manatee distribution and abundance as
15 prescribed in the biological monitoring section of the proposed Conditions
16 of Certification for the CCEC project. The development of a long-term
17 manatee strategy in the proposed Conditions of Certification requires FPL
18 to engage with jurisdictional agencies to begin long-term planning to
19 reduce potential adverse affects from any future reduction of warm water
20 production at CCEC.

21 **Q. Please describe the activities and resources FPL anticipates are**
22 **needed to comply with the PCC Conditions of Certification.**

23 A. Environmental monitoring includes writing an Environmental Monitoring
24 Plan, evaluating the heating system, deploying temperature monitoring

1 stations to measure air and water temperatures, and preparing
2 environmental monitoring reports. Biological monitoring includes writing a
3 Biological Monitoring Plan, conducting aerial surveys, tagging manatees
4 and conducting telemetry studies, hiring specially-trained manatee
5 observers, providing manatee observation platforms, and preparing
6 biological monitoring reports. FPL will also perform activities required
7 under the long-term manatee strategy mentioned above. Most, if not all,
8 of the long-term strategy activities will occur after 2015 because of the
9 requirements to coordinate activities with agencies protecting the
10 manatees and the need to have future plant life plans for CCEC
11 developed.

12 **Q. Has FPL estimated the cost of the proposed MTHS project and**
13 **associated activities needed to comply with the PCC Conditions of**
14 **Certification?**

15 **A.** Estimated capital costs for the heating system in 2010 are \$4.68 million.
16 This estimate includes expenditures for the equipment, design and
17 engineering of the system, labor for installation, interconnection to the
18 FPL power system, and the development of the BMP manual.

19
20 After installation and commissioning is complete, FPL expects to incur
21 O&M costs associated with materials and supplies necessary to maintain
22 the heating system at PCC. FPL's annual O&M estimates for years 2010
23 through 2015 are \$202,249, \$318,931, \$286,600, \$298,000, \$268,000,
24 \$138,500 respectively. The materials and supplies which are expected to

1 be required for operation and maintenance of the heating system may
2 include replacement heating elements, heater control components,
3 electrical fuses, pump seals, and miscellaneous consumable items such
4 as grease/oil for motor maintenance, gaskets, paint and rags. These
5 projected O&M costs do not include the energy costs to operate the
6 heating system. FPL cannot predict how often the system will operate,
7 however, the energy costs will not be significant nor will they be recovered
8 through the ECRC process.

9
10 Regarding compliance with the additional PCC Conditions of Certification,
11 FPL estimated that environmental monitoring will cost a total of \$865,000
12 which includes expenses for consultants, instruments, equipment, and
13 production of documents. Biological monitoring is estimated to total
14 \$920,000, which includes expenses for consultants, survey flights,
15 instruments, equipment, and production of documents. The development
16 of a long-term manatee strategy is estimated to total \$110,000 which
17 includes expenses for consultants, workshops, and production of
18 documents.

19 **Q. Has FPL estimated its 2010 ECRC recovery amount for the MTHS**
20 **project and related PCC Conditions of Certification?**

21 **A.** FPL plans to place the heating system at PCC into service by September
22 15, 2010. Based on that in-service date, FPL has projected
23 approximately \$160,684 in amortization expense and return on
24 investment associated with this heating system during the remainder of

1 2010. During 2010, FPL projects spending approximately \$202,249 for
2 environmental monitoring, biological monitoring and the long-term
3 strategy development, which are required by the PCC Conditions of
4 Certification.

5 **Q. Please describe the measures FPL has taken to ensure that costs of**
6 **the PCC MTHS project and related PCC Conditions of Certification**
7 **have been minimized.**

8 **A. FPL's Engineering and Construction Division has retained an engineering**
9 **firm, Worley Parsons, to perform a study to identify the most cost-effective**
10 **approach to providing a heating system at PCC. Using a performance**
11 **specification for the recommended heater, FPL's Integrated Supply Chain**
12 **(ISC) group, participating in the MTHS Project, solicited bids from multiple**
13 **suppliers, identified the supplier that provided the overall best value, and**
14 **has secured pricing for the heater component of the PCC MTHS. The**
15 **ISC group provides enterprise-wide leadership, direction, and operation of**
16 **a fully integrated supply chain that will also support the procurement of**
17 **other materials and equipment, as well as the construction services**
18 **needed to complete the MTHS at PCC. ISC's objective is to drive down**
19 **costs to FPL and ensure the delivery of the highest quality goods and**
20 **services.**

21
22 **FPL's Project Controls group has established a scope, budget, and**
23 **schedule to meet the needs of the MTHS Project. Project Controls is also**
24 **responsible for tracking all MTHS Project costs through various approval**

1 processes, procedures, and databases.

2

3 Regarding the FWC Conditions of Certification, FPL has developed its
4 estimates by working with the FWC staff and an independent expert in
5 manatee studies to assess the costs and expenses for environmental
6 monitoring, biological monitoring, and developing a long-term manatee
7 strategy.

8

9 **Q. Is FPL recovering through any other mechanism the costs for the**
10 **PCC MTHS project and related PCC Conditions of Certification for**
11 **which it is petitioning for ECRC recovery?**

12 **A. No.**

13

14 **St. Lucie Cooling Water System Inspection and Maintenance Project**

15

Update

16

17 **Q. Please provide an update on the St. Lucie Cooling Water System**
18 **Inspection and Maintenance Project.**

19 **A. As I will explain below, the St. Lucie Cooling Water System Inspection and**
20 **Maintenance Project (the "Project") has evolved substantially as to the**
21 **required scope of project activities. In addition, FPL has encountered**
22 **considerable challenges related to the conditions under which the Project**
23 **work must be performed.**

24 **Q. Please describe the evolution of the scope of Project activities.**

1 A. In anticipation of a Biological Opinion (BO) to be issued by the National
2 Marine Fisheries Service (NMFS) pursuant to section 7 of the federal
3 Endangered Species Act, 16 USC Section 1531 (ESA), on January 5,
4 2007, FPL submitted a petition to the Florida Public Service Commission
5 (FPSC) for approval of the Project. In the affidavit supporting the petition,
6 FPL stated that the purpose of the Project was to inspect and, as
7 necessary, clean up or repair any conditions found during the inspection
8 that could contribute to injuries and/or deaths of endangered species,
9 thus helping to keep FPL in compliance with the ESA. The affidavit
10 further stated that, while the initial project activity consisted of inspection
11 and cleaning of the intake pipes, additional inspection, maintenance
12 and/or modification activities could be required in the future to comply with
13 the ESA.

14
15 The major change to the required scope relates to the decision by the
16 NMFS that FPL needs to install exclusion devices at the velocity cap
17 openings in order to prevent large organisms such as adult sea turtles
18 from entering the intake pipes. This change in the NMFS's position is
19 largely a result of the discovery that a nesting female sea turtle had been
20 drawn through an intake pipe into the cooling canal and laid eggs on the
21 bank of the canal, and that the hatchlings then were drawn into plant
22 cooling water intakes where they were trapped and died.

23
24 On August 4, 2008, I filed an update to the Project providing details on the

1 specifications of the exclusion device, stating "the exclusion devices
2 consist of a support structure installed in the opening of the velocity caps,
3 which will support panels containing a mesh with 20 inch openings
4 installed at approximately 45 degrees." The testimony also stated that
5 the conceptual design had been submitted to the Nuclear Regulatory
6 Commission (NRC) for review. Although the devices are intended to
7 exclude a variety of sea life, I will refer to them as "turtle excluders" for
8 simplicity.

9 **Q. What is the status of the inspection and cleaning of the St. Lucie**
10 **Plant Cooling Water System?**

11 **A.** The inspection of the intake pipes and velocity caps was completed
12 during the scheduled 2007 Spring refueling outage. The results of the
13 inspection provided details for what additional work was needed to clean
14 and remove/minimize debris or structural obstructions.

15
16 FPL established a project team to plan and manage the scope of the pipe
17 cleaning and debris removal. Generally, the cleaning included the ceiling,
18 floor and columns of the velocity caps, along with the vertical risers and
19 the easternmost 375' of the intake pipes. The work also called for removal
20 of marine growth, unevenness of the concrete and other obstacles and
21 protrusions that could potentially harm marine life.

22
23 As with the inspection work, the cleaning and debris removal has to be
24 performed during unit outages, to allow the flow in the pipe that is being

1 cleaned to be blocked off for safety reasons. Initially, FPL expected to
2 complete that work during scheduled outages in 2007, but that has not
3 proved to be possible. The 12' diameter south intake pipe and 200' of the
4 12' diameter north intake pipe were completed in 2007, representing
5 approximately 57% of the estimated total footage. The vertical risers for
6 the two 12' velocity cap structures were also completed in 2007,
7 representing approximately 66% of the total area. The 2007 cleaning work
8 was delayed approximately 40% of the calendar time because of adverse
9 weather conditions.

10

11 No pipe cleaning work was performed during the scheduled 2008 Fall
12 refueling outage because of adverse weather conditions. Work also
13 could not be performed during the scheduled 2009 Spring refueling
14 outage because of a very short outage window. Therefore, the remaining
15 intake pipe and velocity cap cleaning has been scheduled for the 2010
16 and 2012 Spring refueling outages.

17 **Q. Please describe the adverse weather conditions that have led to**
18 **project delays.**

19 **A.** Weather conditions have a direct impact on the diving operations since
20 the cleaning of the intake pipe and velocity caps is performed manually by
21 divers. Diving operations are considered a high risk activity. Because of
22 the high risk nature of diving operations and the importance of diver
23 safety, very stringent dive rules are in place to protect divers. The dive
24 restrictions are very dependent on sea conditions which are, in turn,

1 greatly influenced by the weather conditions. In addition to storms and
2 lightning, sea conditions such as wave height, wave surge, and visibility
3 are influenced by the weather and have limits that restrict when divers can
4 be in the water. Although conditions are generally good for dive
5 operations during the spring and summer months when the cleaning is
6 performed, during the duration of the Project, weather has often resulted
7 in lost time or non-productive days where weather would not allow dive
8 operations to start or days when weather limited productive dive time.

9 **Q. Please describe the activities that FPL is undertaking as a result**
10 **of the NMFS requirement that turtle excluders be installed.**

11 **A.** The 2007 inspection identified inconsistencies in the size and shape of
12 the windows in the velocity cap structures where the turtle excluders are
13 to be installed. These inconsistencies are believed to be due to a
14 combination of biofouling, marine growth, protrusions of various
15 construction materials in the velocity cap windows and the uneven
16 placement of concrete. Together, these factors have made it impractical
17 to design and install turtle excluders having standard dimensions,
18 meaning that each excluder would have to be customized to the window
19 where it would be installed. Therefore, unless steps are taken to allow the
20 installation of standardized excluders, the design, testing, and installation
21 would not be cost effective. In addition, the reduced area of the windows
22 due to the obstructions has created vortices from which organisms cannot
23 escape. Cost estimates to remove this excess concrete (by concrete
24 cutting methods) as well as other obstacles and protrusions in the window

1 openings were not contemplated in any of the original project cost
2 projections.

3

4 The removal of excess concrete required for the installation of the turtle
5 exclusion devices is scheduled to resume in 2010 and continue through
6 2012. The concrete removal in the 16' pipe will be completed in 2011,
7 which in turn will allow the 16' velocity cap turtle exclusion devices to be
8 installed. The 12' velocity caps' concrete removal is expected to be
9 completed in the Spring of 2012, and the turtle exclusion devices installed
10 in the Summer of 2012.

11 **Q. What impact have these challenging work conditions and scope**
12 **changes had on the projected cost of the Project?**

13 **A.** As one would expect, they have increased the projected cost
14 considerably. The original cost estimate for the inspection and
15 cleaning/debris removal was approximately \$3 million to \$6 million,
16 although the petition cautioned at the time that the full scope and hence
17 cost of the Project could not be predicted until the inspection was
18 complete. In 2008, I estimated the cost of the turtle excluders to be
19 approximately \$3.75 million. However, those estimates did not take into
20 account (1) the extremely adverse work conditions that would drastically
21 limit the amount of productive dive time, or (2) the need to physically cut
22 out large sections of concrete and other protrusions in order to eliminate
23 dangerous obstacles and create regular window dimensions for the turtle
24 excluders. These changed conditions have increased FPL's estimate of

1 the total project cost from the approximately \$10 million just mentioned, to
2 over \$21 million today.

3

4 FPL's estimated costs for 2010 are \$4.2 million. Of that total, \$2.8 million
5 of capital expenses are projected for concrete removal activities, and \$1.4
6 million of O&M expenses projected for pipe cleaning activities.

7 **Q. How will FPL ensure that the costs incurred are prudent and**
8 **reasonable?**

9 A. Consistent with our standard practice for all contractor services
10 procurements, FPL competitively bid all of the concrete cutting and diving
11 activities to ensure costs for activities performed by outside firms were
12 prudently incurred. FPL will revise project estimates as specific costs
13 become available through contractor specific bids and costs. FPL will
14 continue to perform due diligence over the life of this project to minimize
15 costs, which may include investigating alternative concrete cleaning and
16 cutting techniques, changes in diving operations that may include
17 changes to types of work platforms and stations, diver working hours, or
18 other methodologies to ensure the projects costs are prudent and
19 reasonable and that any costs for weather delays are minimized

20 **Q. Is FPL recovering these Project costs through any other**
21 **mechanism?**

22 A. No.

23 **Q. Does this conclude your testimony?**

24 A. Yes.

APPENDIX II

ENVIRONMENTAL COST RECOVERY

**EXHIBITS OF
RANDALL R. LABAUVE**

- RRL-8 NESHAP ICR Public Notice**
- RRL-9 Electric Utility Steam Generating Unit Hazardous Air
Pollutant Information Collection Effort Burden
Statement Part B**
- RRL-10 Florida Department of Environmental Protection
(FDEP) Industrial Wastewater Facility Permit Number
FL0001473 for Plant Cape Canaveral (PCC)**
- RRL-11 PCC Manatee Protection Plan (MPP)**
- RRL-12 U.S. Fish and Wildlife Service (USFWS) letter to FPL**
- RRL-13 Florida Fish and Wildlife Conservation Commission's
(FWC) "FWC Staff Report For Florida Power and
Light Company – Cape Canaveral Energy Center
(CCEC)"**
- RRL-14 Manatee Heating System Conceptual Location of
Pumps and Heater**

local and Tribal governments, the general public and international community to comment on the scope of the EIS, including identification of reasonable alternatives and specific issues to be addressed.

DOE will hold public scoping meetings from 5:30 p.m.–9:30 p.m. on the following dates and locations:

- July 21, 2009 Two Rivers Convention Center, 159 Main Street, Grand Junction, CO 81501.
- July 23, 2009 Embassy Suites Kansas City—Plaza, 220 West 49rd Street, Kansas City, MO 64111.
- July 28, 2009 Clarion Hotel and Conference Center, 1515 George Washington Way, Richland, WA 99352.
- July 30, 2009 North Augusta Municipal Center, 100 Georgia Avenue, North Augusta, SC 29841.
- August 4, 2009 El Capitan Resort, 540 F Street, Hawthorne, NV 89415.
- August 6, 2009 James Roberts Civic Center, 855 E. Broadway, Andrews, TX 79714.
- August 11, 2009 Shilo Inn/O'Callahans Convention Center, 780 Lindsay Blvd., Idaho Falls, ID 83402.

Additional details on the scoping meetings will be provided in local media and at <http://www.mercurystorageeis.com>.

At each scoping meeting, DOE plans to hold an open house one hour prior to the formal portion of the meetings to allow participants to register to provide oral comments, view informational materials, and engage project staff. The registration table will have an oral comment registration form as well as a sign up sheet for those who do not wish to give oral comments but who would like to be included on the mailing list to receive future information. The public may provide written and/or oral comments at the scoping meetings.

Analysis of all public comments provided during the scoping meetings as well as those submitted as described in ADDRESSES above, will be considered in helping DOE further develop the scope of the EIS and potential issues to be addressed. DOE expects to issue a Draft EIS in the fall of 2009.

Issued in Washington, DC, on June 24, 2009.

Scott Blake Harris,
General Counsel.

[FR Doc. E9-15704 Filed 7-1-09; 8:45 am]

BILLING CODE 6450-01-P

DEPARTMENT OF ENERGY

Basic Energy Sciences Advisory Committee

AGENCY: Department of Energy, Office of Science.

ACTION: Notice of open meeting.

SUMMARY: This notice announces a meeting of the Basic Energy Sciences Advisory Committee (BESAC). Federal Advisory Committee Act (Pub. L. 92-463, 86 Stat. 770) requires that public notice of these meetings be announced in the Federal Register.

DATES: Thursday, July 9, 2009, 8:30 a.m.–5:30 p.m., and Friday, July 10, 2009, 8:30 a.m. to 12 noon.

ADDRESSES: Bethesda North Marriott Hotel and Conference Center, 5701 Marinelli Road, North Bethesda, MD 20852.

FOR FURTHER INFORMATION CONTACT: Katie Perine; Office of Basic Energy Sciences; U. S. Department of Energy; Germantown Building, Independence Avenue, Washington, DC 20585; Telephone: (301) 903-6529.

SUPPLEMENTARY INFORMATION: *Purpose of the Meeting:* The purpose of this meeting is to provide advice and guidance with respect to the basic energy sciences research program.

Tentative Agenda: Agenda will include discussions of the following:

- News from Office of Science/DOE;
- News from the Office of Basic Energy Sciences;
- Report from the New Era Subcommittee's Photon Workshop;
- Energy Frontier Research Center Update;
- COV Report for Materials Science and Engineering Division;
- New BESAC Charge.

Public Participation: The meeting is open to the public. If you would like to file a written statement with the Committee, you may do so either before or after the meeting. If you would like to make oral statements regarding any of the items on the agenda, you should contact Katie Perine at 301-903-6594 (fax) or katie.perine@science.doe.gov (e-mail). Reasonable provision will be made to include the scheduled oral statements on the agenda. The Chairperson of the Committee will conduct the meeting to facilitate the orderly conduct of business. Public comment will follow the 10-minute rule. This notice is being published less than 15 days before the date of the meeting due to programmatic issues that had to be resolved.

Minutes: The minutes of this meeting will be available for public review and

copying within 30 days at the Freedom of Information Public Reading Room; 1E-190, Forrestal Building; 1000 Independence Avenue, SW.; Washington, D.C. 20585; between 9 a.m. and 4 p.m., Monday through Friday, except holidays.

Issued in Washington, DC, on June 30, 2009.

Rachel M. Samuel,

Deputy Committee Management Officer.

[FR Doc. E9-15779 Filed 7-1-09; 8:45 am]

BILLING CODE 6450-01-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2009-0234; FRL-8925-7]

Agency Information Collection Activities: Proposed Collection; Comment Request; Information Request for National Emission Standards for Coal- and Oil-fired Electric Utility Steam Generating Units; EPA ICR No. 2362.01

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notices.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this action announces that EPA is planning to submit a request for a new Information Collection Request (ICR) to the Office of Management and Budget (OMB). Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on the proposed information collection as described below.

DATES: Comments must be submitted on or before August 31, 2009.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2009-0234, by one of the following methods:

- www.regulations.gov: Follow the on-line instructions for submitting comments.
- E-mail: a-and-r-docket@epa.gov.
- Fax: (202) 566-1741.
- Mail: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mailcode: 22821T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- Hand Delivery: Air and Radiation Docket and Information Center, U.S. EPA, Room 3334, EPA West Building, 1301 Constitution Avenue, NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

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Instructions: Direct your comments to Docket ID No. EPA-HQ-OAR-2009-0234. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

FOR FURTHER INFORMATION CONTACT: William Maxwell, Energy Strategies Group, Sector Policies and Program Division, (D243-01), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5430; fax number: (919) 541-5450; e-mail address: maxwell.bill@epa.gov.

SUPPLEMENTARY INFORMATION:

How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-OAR-2009-0234, which is available for online viewing at www.regulations.gov, or in-person viewing at the Air and Radiation Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal

holidays. The telephone number for the Reading Room is 202-566-1744, and the telephone number for the Air and Radiation Docket is 202-566-1742.

Use www.regulations.gov to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the docket ID number identified in this document.

What Information Is EPA Particularly Interested in?

Pursuant to PRA section 3506(c)(2)(A), EPA specifically solicits comments and information to enable it to:

- (i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;
- (ii) Evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- (iii) Enhance the quality, utility, and clarity of the information to be collected; and
- (iv) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology (e.g., permitting electronic submission of responses).

What Should I Consider When I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments.

1. Explain your views as clearly as possible and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under DATES.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and Federal Register citation.

What Information Collection Activity or ICR Does This Apply to?

Affected entities: Entities potentially affected by this action are coal- and oil-fired electric utility steam generating units that emit hazardous air pollutants (HAP). Hazardous air pollutant means any pollutant listed pursuant to Clean Air Act (CAA) section 112(b). CAA section 112(a)(8) defines an electric utility steam generating unit as

* * * any fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is also considered a utility unit.

Title: Information Collection Effort for Coal- and Oil-fired Electric Utility Steam Generating Units.

ICR numbers: EPA ICR No. 2362.01.

ICR status: This ICR is for a new information collection activity. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the Federal Register when approved, are listed in 40 CFR part 9, are displayed either by publication in the Federal Register or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

Abstract: To obtain the information necessary to identify and categorize all coal- and oil-fired electric utility steam generating units potentially affected by the CAA section 112(d) standard, this ICR will solicit information from all potentially affected units under authority of CAA section 114. EPA intends to provide the survey in electronic format; however, written responses will also be accepted. The survey will be submitted to all facilities identified as being coal- or oil-fired electric utility steam generating units through databases available to the Agency. EPA envisions allowing recipients 3 months to respond to the survey. To further define the emission level being achieved by average of the top performing 12 percent of similar sources for the existing population, this ICR requires that certain units conduct emission testing concurrent with the survey. EPA envisions allowing recipients 6 months to respond to the emission testing requirement.

EPA estimates the cost of the information collection will be 100,370 hours and \$104,807,458.

On December 20, 2000 (65 FR 79825, 79831), EPA added coal- and oil-fired electric utility steam generating units to the list of source categories under section 112(c). The CAA requires EPA to establish National Emission Standards for Hazardous Air Pollutants (NESHAP) for the control of HAP from both existing and new coal- and oil-fired electric utility steam generating units. Section 112(d) provides that for major sources, EPA must establish emission standards that reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as the "maximum achievable control technology" (MACT). The minimum level of emission reduction that the MACT standards must achieve is known as the "MACT floor," as defined under CAA section 112(d)(3). The MACT floor for existing sources is the emission limitation achieved by the average of the best-performing 12 percent of existing sources in the category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. For major sources, CAA section 112(d) also requires EPA to consider whether more stringent limits—known as beyond the floor standards—are achievable after taking into consideration the cost of achieving such emission reduction, any non-air health and environmental impacts, and energy impacts.

The Agency acquired unit-specific data and data on mercury from coal-fired units in an ICR approved on November 13, 1998 (OMB Control No. 2060-0398). These data were gathered in advance of the December 20, 2000 regulatory finding. These data sources are now over 10 years old and addressed only coal-fired electric utility steam generating units and only mercury emissions from such units. The Agency is aware that significant changes have been made in the intervening years in the number of operating coal- and oil-fired units, in industry ownership practices, and in emission control configurations. Further, in light of the statutory requirements for establishing emission standards under section 112(d) and the recent case law interpreting those requirements, the Agency believes that it needs additional data from both coal- and oil-fired electric utility steam generating units. We believe that

obtaining updated information will be crucial to informing our decision on the NESHAP for coal- and oil-fired electric utility steam generating units.

The information in this ICR will be collected under authority of CAA section 114. CAA section 114(a) states, in pertinent part:

For the purpose * * * (i) of * * * developing * * * any emission standard under section 7412 of this title * * * or (iii) carrying out any provision of this Chapter * * * (1) the Administrator may require any person who owns or operates any emission source * * * who the Administrator believes may have information necessary for the purposes set forth in this subsection * * * on a one-time, periodic or continuous basis to- * * * (B) make such reports * * *; (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical * * *, and (G) provide such other information as the Administrator may reasonably require * * *

The data collected will be used to confirm the population of potentially affected coal- and oil-fired electric utility steam generating units, and update existing emission test data and fuel analysis information. These data will be used by the Agency to develop the NESHAP for coal- and oil-fired electric utility steam generating units under CAA section 112(d). Specifically, the data will provide the Agency with updated information on the number of potentially affected units, and available emission test data and fuel analysis data to address variability. All data collected will be added to existing emission test databases for coal- and oil-fired electric utility steam generating units; it will also be used to further evaluate the HAP emissions from these sources.

This collection of information is mandatory under CAA section 114 (42 U.S.C. 7414). All information submitted to EPA pursuant to this ICR for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

The EPA would like to solicit comments to:

(i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;

(ii) Evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information,

including the methodology and assumptions used;

(iii) Enhance the quality, utility, and clarity of the information to be collected; and

(iv) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology (e.g., permitting electronic submission of responses).

Burden Statement: The projected cost and hour burden for this one-time collection of information is \$104,807,458 and 100,370 hours. This burden is based on an estimated 555 facilities (1,325 units) being respondents to the survey and required emission testing. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here.

Estimated total number of potential respondents: 555 facilities (1,325 units).

Frequency of response: One time.

Estimated total average number of responses for each respondent: 1.

Estimated total annual burden hours: 100,370.

Estimated total annual burden costs: \$104,807,458.

What Is the Next Step in the Process for This ICR?

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another Federal Register notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the

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technical person listed under FOR FURTHER INFORMATION CONTACT.

Dated: June 26, 2009.

Mary E. Henigin,
Acting Director, Sector Policies and Programs
Division.

[FR Doc. E9-15666 Filed 7-1-09; 8:45 am.]

BILLING CODE 6380-90-P

ENVIRONMENTAL PROTECTION
AGENCY

[EPA-HQ-OECA-2008-0389; FRL-8925-4]

Agency Information Collection
Activities; Submission to OMB for
Review and Approval; Comment
Request; NESHAP for Clay Ceramics
Manufacturing (Renewal), EPA ICR
Number 2023.04, OMB Control Number
2060-0513

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), this document announces that an information Collection Request (ICR) has been forwarded to the Office of Management and Budget (OMB) for review and approval. This is a request to renew an existing approved collection. The ICR, which is abstracted below, describes the nature of the collection and the estimated burden and cost.

DATES: Additional comments may be submitted on or before August 3, 2009.

ADDRESSES: Submit your comments, referencing docket ID number EPA-OECA-2008-0389, to (1) EPA online using <http://www.regulations.gov> (our preferred method), or by e-mail to docket.oeca@epa.gov, or by mail to: EPA Docket Center (EPA/DC), Environmental Protection Agency, Enforcement and Compliance Docket and Information Center, mail code 28221T, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, and (2) OMB at: Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attention: Desk Officer for EPA, 725 17th Street, NW., Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Sounjay Gairola, Office of Enforcement and Compliance Assurance, Mail Code 2242A, Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; telephone number: (202) 564-4003; e-mail address: gairola.sounjay@epa.gov.

SUPPLEMENTARY INFORMATION: EPA has submitted the following ICR to OMB for review and approval according to the

procedures prescribed in 5 CFR 1320.12. On May 30, 2008 (73 FR 31088), EPA sought comments on this ICR pursuant to 5 CFR 1320.8(d). EPA received no comments. Any additional comments on this ICR should be submitted to EPA and OMB within 30 days of this notice.

EPA has established a public docket for this ICR under docket ID number EPA-HQ-OECA-2008-0389, which is available for public viewing online at <http://www.regulations.gov>, in person viewing at the Enforcement and Compliance Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Avenue, NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Enforcement and Compliance Docket is (202) 566-1752.

Use EPA's electronic docket and comment system at <http://www.regulations.gov>, to submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the docket that are available electronically. Once in the system, select "docket search," then key in the docket ID number identified above. Please note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing at <http://www.regulations.gov>, as EPA receives them and without change, unless the comment contains copyrighted material, Confidential Business Information (CBI), or other information whose public disclosure is restricted by statute. For further information about the electronic docket, go to <http://www.regulations.gov>.

Title: NESHAP for Clay Ceramics Manufacturing (Renewal).

ICR Numbers: EPA ICR Number 2023.04, OMB Control Number 2060-0513.

ICR Status: This ICR is scheduled to expire on August 31, 2008. Under OMB regulations, the Agency may continue to conduct or sponsor the collection of information while this submission is pending at OMB. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the Federal Register when approved, are listed in 40 CFR part 9, and displayed either by publication in the Federal Register or by other appropriate means, such as on the

related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

Abstract: The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Clay Ceramics Manufacturing (40 CFR part 63, subpart KKKKK) were proposed on July 22, 2002 (67 FR 47893) and promulgated on May 16, 2003 (67 FR 26738).

The affected entities are subject to the General Provisions of the NESHAP at 40 CFR part 63, subpart A, and any changes, or additions to the General Provisions specified at 40 CFR part 63, subpart KKKKK.

Owners or operators of the affected facilities must submit a one-time-only report of any physical or operational changes, initial performance tests, and periodic reports and results. Owners or operators are also required to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, or any period during which the monitoring system is inoperative. Reports, at a minimum, are required semiannually.

Burden Statement: The annual public reporting and recordkeeping burden for this collection of information is estimated to average 17 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Respondents/Affected Entities: Clay ceramics manufacturing facilities.

Estimated Number of Respondents: 10.

Frequency of Response: Initially, occasionally, and semiannually.

Estimated Total Annual Hour Burden: 527.

Estimated Total Annual Cost: \$45,702, which includes labor costs of \$42,532, O&M costs of \$2,468, and annualized capital/startup costs of \$702.

Changes in the Estimates: There is no change in the total estimated burden

**INFORMATION COLLECTION REQUEST FOR NATIONAL EMISSION
STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHA) FOR COAL- AND
OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS**

Part B of the Supporting Statement

1. Respondent Universe

In 2005, the number of coal- and oil-fired electric utility steam generating facilities owned and operated by publicly-owned utility companies, Federal power agencies, rural electric cooperatives, and investor-owned utility generating companies included approximately 1,325 units (boilers) that generated greater than 25 megawatts-electric (MWe), according to the U.S. Department of Energy/Energy Information Administration (DOE/EIA) Form EIA-767 database. Currently, this database contains the most recent data available from DOE for coal- and oil-fired electric utility steam generating units but DOE/EIA states that (as of the writing of this supporting statement) that the 2007 database is soon to be made publically available. The 2006 EIA-860 database covers some of the same units covered by EIA-767; however, this database also includes units owned and operated by non-utilities (including independent power producers and combined heat and power producers). EPA will query this database to determine if it includes any coal- or oil-fired electric utility steam generating units that meet the Act's definition. Additionally, EPA/OAR/Office of Air Quality Planning and Standards will coordinate with EPA/OAR/Clean Air Markets Division (to obtain an industry configuration database output from their electric utility sulfur dioxide (SO₂) cap-and trade program) for help with the development of the final list of electric utilities in this survey data collection effort. As facilities respond to the ICR data request, the Agency will modify this base list of units to represent all affected sources under this effort.

2. Selection of Units to Conduct Stack Testing

Coal-fired units to be tested will be selected to cover four potential groupings of hazardous air pollutants (HAP) that may be addressed through the use of surrogates based on current understanding of appropriate surrogates. These potential groupings of HAP are acid-gas HAP (e.g., hydrogen chloride (HCl), hydrogen fluoride (HF)), dioxin/furan organic HAP, non-dioxin/furan organic HAP, and mercury and other non-mercury metallic HAP. For oil-fired units, the bases for any surrogacy argument(s) are less well developed and will require more extensive testing. Rationale for the selection of units for each possible surrogate grouping is

discussed below. In the following stack testing, each facility is required to test after the last control device or at the stack if the last control device is not shared with one or more other units. In this way, the facility would test before any "dilution" by gases from a separately-controlled unit.

Coal-fired units, acid gas HAP

The acid-gas HAP, HCl and HF, are water-soluble compounds and are more soluble in water than is SO₂. (Hydrogen cyanide, HCN, representing the "cyanide compounds," is also water-soluble and will be considered an "acid-gas HAP" in this document.) HCl also has a large acid dissociation constant (i.e., HCl is a strong acid) and is, thus, will react easily in an acid-base reaction with (i.e., be readily adsorbed on) caustic sorbents (e.g., lime, limestone). This indicates that both HCl and HF will be more rapidly and readily removed from a flue gas stream than will SO₂, even when only plain water is utilized. In the slurry streams, composed of water and sorbent (e.g., lime, limestone) utilized in both wet and dry flue gas desulfurization (FGD) systems, acid gases and SO₂ are absorbed by the slurry mixture and react to (usually) form solid salts. In fluidized bed combustion (FBC) systems, the acid gases and SO₂ are adsorbed by the sorbent (usually limestone) that is added to the coal and an inert material (e.g., sand, silica, alumina, or ash) as part of the FBC process. The adsorption process is temperature dependent and the cooler the flue gas, the more effectively the acid gases will react with the sorbents. One mole of calcium hydroxide (Ca(OH)₂) will neutralize one mole of SO₂, whereas one mole of Ca(OH)₂ will neutralize two moles of HCl. A similar reaction occurs with the neutralization of HF. These reactions demonstrate that when using a spray dryer, the HCl and HF are removed more readily than is the SO₂. Given that even more water is available in a wet-FGD system, the same condition would also hold in that situation (i.e., in a wet-FGD, HCl and HF would be removed more readily than SO₂). Thus, emissions of SO₂, a commonly measured pollutant, could be used as a surrogate for emissions of the acid-gas HAP HCl and HF. Although this approach has not been used in any section 112 rules by the Agency, it has been used in a number of State permitting actions (e.g., Arkansas/Plum Point; Kentucky/Spurlock 3; Nebraska/Nebraska City 2; Wisconsin/Elm Road-Oak Creek and Weston 4).

However, potential issues have been raised as to whether SO₂ can serve as a legally defensible surrogate for HCl and HF because the subject HAP (i.e., HCl, HF) must be "inherently present" in the potential surrogate (i.e., SO₂), a condition presented by the Court in

Sierra Club v. EPA, January 13, 2004 ("Copper Smelters") and a condition that is not present with this HAP/surrogate group. In addition, there are coal-fired utility boilers that utilize low chlorine content coals and that do not have FGD systems installed. In order to assess whether any of these units could be among the top performing 12 percent of sources on an HCl-emissions basis, it is necessary to identify and test such units.

Based on data obtained through the 1999 ICR, EPA was able to rank-order the coals used by chlorine content. Although there is variation in the coal chlorine content over a year, this methodology, and the number of units selected, will provide a reasonable basis for ensuring that some low-chlorine coal is included in the testing. From this ranking, EPA selected 360 units at 139 facilities with the lowest chlorine content coals. EPA also evaluated coal-fired units with FGD systems installed. Using a tested SO₂ removal efficiency (at the unit's annual operational factor) of 90 percent or greater as a metric and assuming equal or greater HCl/HF/HCN removal, EPA selected 123 units at 78 facilities with the lowest resulting estimated chlorine emissions. Each of the facilities identified as using a low-chlorine coal would be required to test one unit, assuming its use of the common, low-chlorine content coal and not being equipped with any SO₂ controls. Each facility identified with FGD systems installed would be required to test after that specific FGD control (or at the stack if the FGD control device is not shared with one or more other units). If a facility has more than one unit on the FGD control list, the facility would be required to test only one of those FGD controls (or at the stack if the FGD control device is not shared with one or more other units). The facility units identified in the non-FGD portion of Attachment 4 (i.e., low chlorine coal users) would be required to test for HCl, HF, HCN, SO₂, O₂, carbon dioxide (CO₂), and moisture from the stack gases, and chlorine, fluorine, and sulfur content, higher heating value (HHV), and proximate/ultimate analyses of coal being utilized during the test. Similarly, each of the facilities identified as using an FGD system in Attachment 4 would be required to test one unit, assuming use of an FGD system, for HCl, HF, HCN, SO₂, O₂, CO₂, and moisture from the stack gases, and chlorine, fluorine, and sulfur content, HHV, and proximate/ultimate analyses of coal being utilized during the test.

This would yield an additional 217 data sets to be added to the data set from which to determine the top performing 12 percent.

Coal-fired units, dioxin/furan organic HAP

Dioxin data were obtained in support of the 1998 Utility Report to Congress. However, approximately one-half of those data were listed as being below the minimum detection limit for the given test, indicating potential issues with developing an emission limit. Dioxin/furan emissions from coal-fired utility units are generally considered to be low, presumably because of the insufficient amounts of available chlorine. As a result of previous work conducted on municipal waste combustors (MWC), it has also been proposed that the formation of dioxins and furans in exhaust gases is inhibited by the presence of sulfur.¹ Further, it has been suggested that if the sulfur-to-chlorine ratio (S:Cl) is greater than 1.0, then formation of dioxins/furans is inhibited.^{2,3} The vast majority of the coal analyses provided through the 1999 ICR indicated S:Cl values greater than 1.0. Based on data obtained through the 1999 ICR, EPA was able to rank-order the coals used by S:Cl value. Again, although there is variation in the S:Cl value over a year, this methodology, and the number of units selected, will provide a reasonable basis for ensuring that some coals with the S:Cl value sought are included in the testing. From this ranking, EPA selected 394 units at 137 facilities (Attachment 5) with S:Cl values less than 5.0 (a value selected to obtain a sufficient number of units in the pool selected for testing). Each of these facilities would be required to test one unit, assuming use of coal with a common S:Cl value, for dioxins/furans, O₂, CO₂, and moisture from the stack gases, and chlorine and sulfur content, HHV, and proximate/ultimate analyses of the coal being utilized during the test.

In addition, as a result of previous work done on MWC units, EPA identified activated carbon as a potential control technology for dioxin/furan control. Therefore, EPA identified 21 units at 12 facilities with activated carbon injection (ACI) systems installed (Attachment 5). Each of these facilities would be required to test one unit, assuming use of ACI and common coal, for dioxins/furans from the stack gases, and chlorine and sulfur content, HHV, and proximate/ultimate analyses of the coal being utilized during the test.

This would yield an additional 149 data sets to be added to the data set from which to determine the top performing 12 percent.

¹ Gullett, B.K., et al. Effect of Cofiring Coal on Formation of Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans during Waste Combustion. *Environmental Science and Technology*. Vol. 34, No. 2:282-290. 2000.

² Raghunathan, K., and B.K. Gullett. Role of Sulfur in Reducing PCDD and PCDF Formation. *Environmental Science and Technology*. Vol. 30, No. 6:1827-1834. 1996.

³ Li, H., et al. Chlorinated Organic Compounds Evolved During the combustion of Blends of Refuse-derived Fuels and Coals. *Journal of Thermal Analysis*. Vol. 49:1417-1422. 1997.

Coal-fired units, non-dioxin/furan organic HAP

Emissions of carbon monoxide (CO), volatile organic compounds (VOC), and/or total hydrocarbons (THC) have been used as surrogates for the non-dioxin/furan organic HAP based on the theory that efficient combustion leads to lower organic emissions.⁴ However, there are very few emissions data available for these compounds from coal-fired utility boilers. Further, the HAP/CO surrogacy pairing has the same issue with the Copper Smelter ruling noted earlier for acid gas HAP/SO₂. Therefore, EPA selected those 274 coal-fired units at 184 facilities (Attachment 6) having come on-line since 1980 as being representative of the most modern, and, thus, presumed most efficient, units. Each facility with one of these units would be required to test one unit, assuming the unit came on-line since 1980, for CO, VOC, THC, polycyclic organic matter (POM), NO_x, formaldehyde, methane, O₂, CO₂, and moisture from the stack gases and HHV and proximate/ultimate analyses of the coal being utilized during the test. This would yield an additional 184 data sets to be added to the data set from which to determine the top performing 12 percent.

Coal-fired units, mercury and other non-mercury metallic HAP

Emissions of certain non-mercury metallic HAP (i.e., antimony (Sb), beryllium (Be), cadmium (Cd), cobalt (Co), lead (Pb), manganese (Mn), and nickel (Ni)) have been assumed to be well controlled by particulate matter (PM) control devices. However, mercury (Hg) and other non-mercury metallic HAP (i.e., arsenic (As), chromium (Cr), and selenium (Se)), because of their presence in both particulate and vapor phases, have been reported, in some instances, to be not well controlled by PM control devices. Also, it has been shown through recent stack testing that certain non-mercury metallic HAP (i.e., As, Cr, and Se) tend to condense on (or as) very fine particulate matter in the emissions from coal-fired units. There are very few recent emissions test data available showing the potential control of these metallic HAP from coal-fired utility boilers. (Phosphorus (P) will be considered a "non-mercury metallic HAP" in this document.)

The capture of Hg is dependent on several factors including the chloride content of the coal, the amount of unburned carbon present in the fly ash, the flue gas temperature, and the speciation of the Hg. Based on available data, EPA believes that ACI may be an effective control technology for controlling Hg emissions in coal-fired plants. However, EPA has no

⁴ U.S. Environmental Protection Agency. NESHAPS: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Final Rule. 64 FR 52828. September 30, 1999.

direct stack test results showing how effectively these ACI-equipped plants reduce their Hg emissions.

Finally, coal contains trace quantities of the naturally-occurring radionuclides (e.g., uranium and thorium), as well as their radioactive decay products, and potassium-40. When coal is burned, minerals, including most of the radionuclides, do not burn and concentrate in the ash. Although most of the ash is captured, fly ash including some radionuclides, escape from the boiler into the atmosphere. There is some indication that the radionuclides partition to, or enrich on, the in the fine particulate fraction of coal-fired emissions. The behavior of uranium and the uranium-decay products has been attributed to the fact that uranium typically occurs in coal in different phases and can, therefore, give rise to both volatile and semi-volatile species during combustion. The only available data on radionuclide emissions from coal-fired EGUs is nearly 15 years old.

For these reasons, EPA selected those 214 coal-fired units at 123 facilities with PM controls having come on-line since 1990 as being representative of the most modern PM controlled units as well as units with ACI in use. Although some of the units meet both criteria, some only meet the ACI usage criteria. The units chosen to meet these two criteria have a good potential for control of fine PM, radionuclides, and Hg. These units are shown in Attachment 7.

Each facility in Attachment 7 would be required to test after that specific PM control (or at the stack if the PM control device is not shared with one or more other units). If a facility has more than one unit on the PM control list, the facility would be required to test after each of those PM controls (or at the stack if the PM control device is not shared with one or more other units). There are several facilities that are listed in both the PM and the ACI portion of this list of units. These facilities can test at the control device exit (or at the stack if the PM control device is not shared with one or more other units) as long as the ACI injection occurs before the PM control listed. Therefore, each of these facilities would be required to test the unit listed, and if ACI equipped, assuming use of ACI and common coal, for Sb, As, Be, Cd, Cr, Cr⁺⁶, Co, Pb, Mn, Hg, Ni, Se, P, PM (total filterable, fine [dry], fine [wet]), total solids, black carbon, radionuclides, O₂, CO₂, and moisture. All units would also be required to analyze their coal for the metals above (including Hg), P, radionuclides, chlorine, and provide the HHV and proximate/ultimate analyses of the coal being utilized during the test.

This would yield an additional 214 data sets to be added to the data set from which to determine the top performing 12 percent.

Oil-fired units

The potential surrogacy arguments for coal-fired units are primarily based on the use of add-on control technologies, in the case of the non-mercury metallic HAP (PM) and the acid-gas HAP (HCl, HF), or on the S:Cl value for the dioxin/furan organic HAP. However, the data obtained in support of the 1998 Utility Report to Congress and the 2000 Regulatory Determination do not indicate any correlation between PM control and emissions of non-mercury metallic HAP from oil-fired units. Further, no oil-fired unit has a FGD system installed, eliminating the potential basis for the use of emissions of SO₂ as a surrogate for emissions of the acid-gas HAP from such units. In addition, it is not known if the S:Cl value has the same relevance for oil-fired units as it does for coal-fired units. Thus, EPA has no basis for determining which oil-fired units may be the "best performers." Therefore, all units at each facility that are controlled by a fabric filter or an electrostatic precipitator (77 units at 38 facilities) and 1 unit at each facility where all units are controlled by only multiclones or have no PM control (112 units at 39 facilities) in Attachment 8, would be required to test their stack emissions for Sb, As, Be, Cd, Cr, Cr⁺⁶, Co, Pb, Mn, Hg, Ni, Se, P, PM (total filterable, fine [dry], fine [wet]), black carbon, radionuclides, HCl, HF, HCN, SO₂, dioxins/furans, CO, VOC, THC, POM, NO_x, formaldehyde, methane, O₂, CO₂, and moisture. All units would be required to sample their oil for the metals (including Hg), P, radionuclides, chlorine, fluorine, sulfur, and provide HHV and proximate/ultimate analyses of the oil being utilized during the test.

3. Response Rates

Since the information will be requested pursuant to the authority of CAA section 114, EPA expects that all respondents requested to submit information will do so.

Attachment 1.

Draft Questionnaire Content

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OMB Control No. - /
Approval Expires / /

ELECTRIC UTILITY STEAM GENERATING UNIT
HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION COLLECTION EFFORT

BURDEN STATEMENT

Preliminary estimates of the public burden associated with this information collection effort indicate a total of 100,370 hours and \$104,807,458. This is the estimated burden for 555 facilities to provide information on their boilers, fuel oil types and/or coal rank, 1,325 units to provide hazardous air pollutant (HAP) emission data and 12 months of fuel analyses, and 880 units to conduct emissions testing.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal Agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information that is sent to ten or more persons unless it displays a currently valid Office of Management and Budget (OMB) control number.

GENERAL INSTRUCTIONS

[NOTE: It is EPA's intent for the final version of this questionnaire to be in electronic format. The final format will include all questions noted herein.]

Please provide the information requested in the following forms. If you are unable to respond to an item as it is stated, please provide any information you believe may be related. Use additional copies of the request forms for your response.

If you believe the disclosure of the information requested would compromise confidential business information (CBI) or a trade secret, clearly identify such information as discussed in the cover letter. Any information subsequently determined to constitute CBI or a trade secret under EPA's CBI regulations at 40 CFR part 2, subpart B, will be protected pursuant to those regulations and, for trade secrets, under 18 U.S.C. 1905. If no claim of confidentiality

Form Approved ___/___/___
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Approval Expires ___/___/___

accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice pursuant to EPA regulations at 40 CFR 2.203. Because Clean Air Act (CAA) section 114(c) exempts emission data from claims of confidentiality, the emission data you provide may be made available to the public notwithstanding any claims of confidentiality. A definition of what the EPA considers emissions data is provided in 40 CFR 2.301(a)(2)(i).

The following section is to be completed by all facilities:

- **Part I - General Facility Information:** once for each facility. A copy of Part I should be completed and returned to the address noted below within 60 days of receipt.

The following section is to be completed by all facilities meeting the section 112(a)(8) definition of an electric utility steam generating unit:

- **Part II - Fuel Analyses and Emission Data:** Additional copies of certain pages may be necessary for a complete response. A copy of Part II responses should be completed and returned to the address noted below within 60 days of receipt.

The following section is to be completed by all facilities selected for stack testing:

- **Part III - Emissions Test Data:** One emissions test (consisting of three runs). A copy of the emissions test report should be completed and returned to the address noted below within 6 months of receipt.

Detailed instructions for each part follow.

Questions regarding this information request should be directed to Mr. Bill Maxwell at (919) 541-5430.

Return this information request and any additional information to:

Sector Policies and Programs Division (Mail Code D205-01)
U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

Attention: Peter Tsirigotis, Director

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PART III: EMISSION TESTING

For units identified in Part B of the Supporting Statement, testing is to be performed for the identified HAP on a one-time basis after the last control device (i.e., after the last control device or at the stack if the last control device is not shared with one or more other units). Facilities are to use the test procedures noted in Enclosure 1 ("Summary of Coal- and Oil-fired Electric Utility Steam Generating Unit Test Procedures, Methods, and Reporting Requirements") for both the stack and fuel sampling. Each test is to consist of three separate runs at the sampling location. EPA requires that the facility conduct paired trains for the fine particulate matter testing (which is included in the testing of units for mercury and other non-mercury metallic HAP) and duplicate trains for the other HAP being tested. Emission measurements frequently consist of a sequential set (typically three) of singular method tests over the course of several hours or days. In contrast, a sequential set of duplicate or paired method tests provides the only measure of test method precision, thereby facilitating identification of test data "outliers" occasionally generated through improper test method execution, versus true source emission variability. Indeed, paired method data provides a quantifiable way to identify and distinguish between erratic test data and actual emission variations. EPA is considering requiring testing twice within the test period to account for variability in emissions testing.

Enclosure 1

Summary of Coal- and Oil-fired Electric Utility Steam Generating Unit Test Procedures, Methods, and Reporting Requirements

This document provides an overview of approved methods, target pollutant units of measure, and reporting requirements for the coal- and oil-fired electric utility steam generating unit test plan. The document is organized as follows:

- 1.0 Stack Testing Procedures and Methods
- 2.0 Fuel Analysis Procedures and Methods
- 3.0 How to Report Data
- 4.0 How to Submit Data
- 5.0 Definitions
- 6.0 Contact Information for Questions on Test Plan and Reporting

1.0 Stack Testing Procedures and Methods

The EPA coal- and oil-fired electric utility steam generating unit test program includes stack test data requests for several pollutants, including specific hazardous air pollutants (HAP) and potential surrogate groups. If you operate a coal- or oil-fired electric utility steam generating unit, you were selected to perform a stack test for some combination of the following pollutants or potential surrogate groups:

- Non-dioxin/furan organic HAP: Carbon monoxide (CO), total hydrocarbons (THC), volatile organic compounds (VOC); polycyclic organic matter (POM), methane, formaldehyde, oxygen (O₂), carbon dioxide (CO₂), oxides of nitrogen (NO_x), volatile and semi-volatile organic HAP
- Dioxin/furan: dioxins/furans (D/F), O₂, CO₂
- Acid gas HAP: hydrogen chloride (HCl), hydrogen fluoride (HF), hydrogen cyanide (HCN), sulfur dioxide (SO₂), O₂, CO₂
- Mercury and non-mercury metallic HAP: mercury (Hg), HAP metals (including antimony (Sb), arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), Cr⁶⁺, cobalt (Co), lead (Pb), manganese (Mn), nickel (Ni), phosphorus (P) and selenium (Se)), radionuclides, particulate matter (PM – total filterable, PM_{2.5} (wet and dry), and condensable); total solids; carbon (black, elemental, organic), O₂, CO₂

Refer to Table _ on page _ of the section 114 letter you received for the specific combustion unit and pollutants we are requesting that you perform emission tests. You may have submitted test data for some of these pollutants already.

1.1 How to Select Sample Location and Gas Composition Analysis Methods

U.S. EPA Method 1 of Appendix A of Part 60 must be used to select the locations and number of traverse points for sampling. See <http://www.epa.gov/ttn/emc/methods/method1.html> for a copy of the method and guidance information.

Enclosure 1

Analysis of flue gas composition, including oxygen concentration, must be performed using U.S. EPA Methods 3A or 3B of Appendix A of Part 60. See <http://www.epa.gov/ttn/emc/methods/method3a.html> for Method 3A or <http://www.epa.gov/ttn/emc/methods/method3b.html> for Method 3B information.

1.2 Coal- and Oil-fired Electric Utility Steam Generating Unit Test Methods and Reporting

Table 1.2 presents a summary of the recommended test methods for each pollutant and possible alternative methods. If you would like to use a method not on this list, and the list does not meet the definition of "equivalent" provided in the definitions section of this document, please contact EPA for approval of an alternative method.

For copies of the recommended U.S. EPA methods and additional information, please refer to EPA's Emission Measurement Center website: <http://www.epa.gov/ttn/emc/>. A copy of RCRA Method 0011 for aldehydes may be obtained here: <http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/0011.pdf>.

Report pollutant emission data as specified in Table 1.2 below. Each test should be comprised of three test runs. All pollutant concentrations should be corrected to 7 percent oxygen and should be reported on the same moisture basis. Report the results of the stack tests according to the instructions in Section 3.0 of this enclosure. In addition to the emission test data, you should also report the following process information taken during the 30 day period before, at the time of, and during, the emissions test: Heat input; fuel composition and feed rate; steam output; emissions control devices in use during the test; control device operating or monitoring parameters (including, as appropriate to the control device, flue gas flow rate, pressure drop, scrubber liquor pH, scrubber liquor flow rate, sorbent type and sorbent injection rate), and process parameters (such as oxygen).

Table 1.2: Summary of Coal- and Oil-fired Electric Utility Steam Generating Unit Test Methods and Alternative Methods

Pollutant	Recommended Method	Alternative Method	Target Reported Units of Measure
CO	U.S. EPA Method 10, 10A, or 10B	None	ppmvd @ 7% O ₂
Formaldehyde	U.S. EPA Method 320 with a minimum sample time of 1 hour per run.	RCRA Method 0011. Collect a minimum volume of 2.5 cubic meters or have a minimum sample time of 2 hours per run.	ppmvd @ 7% O ₂
HCl and HF	U.S. EPA Method 26A	U.S. EPA Method 26 if there are no entrained water droplets in the sample or U.S. EPA Method 320.	lb/MMBtu

Enclosure 1

Pollutant	Recommended Method	Alternative Method	Target Reported Units of Measure
HCN	U.S. EPA Conditional Test Method 033 (CTM-033)	U.S. EPA Method 26A combined with the analysis procedures from CTM-033, U.S. EPA Method 320, or U.S. EPA Method 26 combined with the analysis procedures from CTM-033, U.S. EPA Method 320 if there are no entrained water droplets in the sample.	lb/MMBtu
Hg	ASTM-D6784-02 (Ontario Hydro Method). Collect a minimum volume of 2.5 cubic meters or have a minimum sample time of 2 hours per run.	U.S. EPA Method 29* or U.S. EPA Method 30B.	lb/MMBtu
Cr ⁺⁶	U.S. EPA SW-846 Method 0061	U.S. EPA Method 29*. Report all Cr as Cr ⁺⁶ .	lb/MMBtu
Metals	U.S. EPA Method 29** No permanganate solution needed, if Hg will not be measured. Collect a minimum volume of 4.0 cubic meters or have a minimum sample time of 4 hours per run. Determine total filterable PM emissions according to §8.3.1.1. Use IC(A)P/MS for the analytical finish. Report all metals results, and report all Cr as Cr ⁺⁶ .	None	lb/MMBtu
Radionuclides	U.S. EPA Method 114. Conduct on digestate of front half filter and on back half of Method 29	None	Microcuries/dry standard cubic meter
PM _{2.5} from stacks without entrained water droplets (e.g., not from units with wet scrubbers)	U.S. EPA Other Test Method 27 (OTM 27) (include cyclone catch***)	None	lb/MMBtu
Black Carbon (BC), elemental carbon (EC), and organic carbon (OC)	Analysis by Magee Scientific Model OT21 – take sample from M201A or M5 filter post gravimetric determination AND IMPROVE_A Thermal/Optical Carbon Analysis		lb/MMBtu for BC, EC, and OC

Enclosure 1

Pollutant	Recommended Method	Alternative Method	Target Reported Units of Measure
PM _{2.5} from stacks with entrained water droplets AND Total Dissolved Solids (TDS) and Total Suspended Solids (TSS) from wet scrubber recirculation liquid	U.S. EPA Method 5 with a filter temperature of 320°F +/- 25°F AND ASTM D5907	For TDS and TSS, Standard Methods of the Examination of Water and Wastewater Method 2540B for solids in scrubber recirculation liquid	lb/MMBtu for PM; AND mg solids liter of scrubber recirculation liquid****
PM (condensable)	U.S. EPA Other Test Method 28 (OTM 28)	None	lb/MMBtu
THC	U.S. EPA Method 25A with a minimum sampling time of one hour per run. Calibrate the measuring instrument with a mixture of the organic compounds being emitted or with propane.	None	ppmvd @ 7% O ₂
CH ₄	U.S. EPA Method 18. Have a minimum sample time of 1 hour per run.	U.S. EPA Method 320.	ppmvd @ 7% O ₂
D/F, PCB*****	U.S. EPA Method 23. Collect a minimum volume of 10 cubic meters or have a minimum sample time of 8 hours per run. Use high resolution GCMS for the analytical finish.	None	ng/dscm @ 7% O ₂
Speciated Volatile Organic HAP	U.S. EPA Method 0031 with SW-846 Method 8260B. Collect a minimum volume of 10 cubic meters or have a minimum sample time of 8 hours per run.	None	µg/dscm @ 7% O ₂
Speciated Semi-volatile Organic HAP	U.S. EPA Method 0010 with SW-846 Method 8270D. Collect a minimum volume of 10 cubic meters or have a minimum sample time of 8 hours per run. Use high resolution GCMS for the analytical finish.	None	µg/dscm @ 7% O ₂
NO _x *****	U.S. EPA Method 7E	U.S. EPA Method 7, 7A, 7B, 7C, or 7D	ppmvd @ 7% O ₂
SO ₂ *****	U.S. EPA Method 6C	U.S. EPA Method 6	ppmvd @ 7% O ₂
O ₂ /CO ₂	U.S. EPA Method 3A	U.S. EPA Method 3B	%
Moisture	U.S. EPA Method 4	None	%

*Method 29 in appendix A-8 to part 60 of this chapter can also be used for Hg, but follow the procedures for preparation of Hg standards and sample analysis in sections 13.4.1.1 through 13.4.1.3 of ASTM D6784-02 instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29, and perform the QA/QC procedures in section 13.4.2 of ASTM D6784-02 instead of the procedures in section 9.2.3 of Method 29. The tester may also opt to use the sample recovery and preparation procedures in ASTM D6784-02 instead of the Method 29 procedures, as follows:

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sections 8.2.8 and 8.2.9.1 of Method 29 can be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784-02; sections 8.2.9.2 and 8.2.9.3 of Method 29 can be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784-02; section 8.3.4 of Method 29 can be replaced with section 13.3.4 or 13.3.6 of ASTM D6784-02 (as appropriate); and section 8.3.5 of Method 29 can be replaced with section 13.3.5 or 13.3.6 of ASTM D6784-02 (as appropriate).

If both mercury and other metals will be testing using EPA Method 29, the stack test company should be diligent in the set-up and handling of the impingers to avoid cross contamination of the manganese from the permanganate into the metals catch. Alternately, the contractor may want to collect mercury on a separate train from the train used to collect the other metals.

**If both mercury and other metals will be testing using EPA Method 29, the stack test company should be diligent in the set-up and handling of the impingers to avoid cross contamination of the manganese from the permanganate into the metals catch. Alternately, the contractor may want to collect mercury on a separate train from the train used to collect the other metals.

***PM filterable is determined by including the cyclone catch.

****Also report scrubber recirculation liquid flow rate in liters/min and fuel feed rate in MMBTU/hr.

*****Just the 12 "dioxin-like" PCB congeners (see the WHO PCB Congener List)

*****If a combustion unit has CEMS installed for CO, NO_x and/or SO₂, the unit can report daily averages from 30 days of CEMS data in lieu of conducting a CO, NO_x and/or SO₂ stack test. In order to correlate these emissions with other stack test emissions, a portion of the CEMS data should contain emissions data collected during performance of the other requested stack tests. The CEMS must meet the requirements of the applicable Performance Specification: CO - Performance Specification 4; NO_x and SO₂ - Performance Specification 2.

2.0 Fuel Analysis Procedures and Methods

The EPA coal- and oil-fired electric utility steam generating unit test program is requesting fuel variability data for fuel-based HAP. The fuel analyses requested include: mercury, chlorine, fluorine, and metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, phosphorus, and selenium) for any coal- and oil-fired electric utility steam generating unit that is selected to conduct a stack test.

You will need to conduct one fuel sample (comprised of three composite samples, each individually analyzed) of the fuel used during the stack test (one composite sample per test run).

Refer to page 1 of the Section 114 letter you received for the specific types of fuel analyses we are requesting from your facility. Directions for collecting, compositing, preparing, and analyzing fuel analysis data are outlined in Sections 2.1 through 2.4.

2.1 How to Collect a Fuel Sample

Table 2.1 outlines a summary of how samples should be collected. Alternately, you may use the procedures in ASTM D2234-00 (for coal) to collect the sample.

Table 2.1: Summary of Sample Collection Procedures

Sampling Location	Sampling Procedures	Sample Collection Timing
	Solid Fuels	
Belt or Screw Feeder	Stop the belt and withdraw a 6- inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section.	Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.
Fuel Pile or Truck	Transfer the sample to a clean plastic bag for further processing as specified in Sections 2.2 through 2.5 of this document. For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile. At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.	
	Liquid Fuels	
Manual Sampling	Follow collection methods outlined in ASTM D 4057	
Automatic Sampling	Follow collection methods outlined in ASTM D4177	

Sampling Location	Sampling Procedures	Sample Collection Timing
Fuel Supplier	<p style="text-align: center;">Fuel Supplier Analysis</p> If you will be using fuel analysis from a fuel supplier in lieu of site specific sampling and analysis, the fuel supplier must collect the sample as specified above and prepare the sample according to methods specified in Sections 2.2 through 2.5 of this document.	

2.2 Create a Composite Sample for Solid Fuels

Follow the seven steps listed below to composite each sample:

- (1) Thoroughly mix and pour the entire composite sample over a clean plastic sheet.
- (2) Break sample pieces larger than 3 inches into smaller sizes.
- (3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.
- (4) Separate one of the quarter samples as the first subset.
- (5) If this subset is too large for grinding, repeat step 3 with the quarter sample and obtain a one-quarter subset from this sample.
- (6) Grind the sample in a mill according to ASTM E829-94, or for selenium sampling according to SW-846-7740.
- (7) Use the procedure in step 3 of this section to obtain a one quarter subsample for analysis. If the quarter sample is too large, subdivide it further using step 3.

2.3 Prepare Sample for Analysis

Use the methods listed in Table 2.2 to prepare your composite samples for analysis.

Table 2.2: Methods for Preparing Composite Samples

Fuel Type	Method
Solid	SW-846-3050B or EPA 3050 for total selected metal preparation
Liquid	SW-846-3020A or any SW-846 sample digestion procedures giving measures of total metal
Coal	ASTM D2013-04
Biomass	ASTM D5198-92 (2003) or equivalent, EPA 3050, or TAPPI T266 for total selected metal preparation

2.4 Analyzing Fuel Sample

Table 2.3 outlines a list of approved methods for analyzing fuel samplings. If you would like to use a method not on this list, and the list does not meet the definition of "equivalent" provided in Section 5 of this document, please contact EPA for approval of an alternative method.

Table 2.3: List of Analytical Methods for Fuel Analysis

Analyte	Fuel Type	Method	Target Reported Units of Measure
Higher Heating Value	Coal	ASTM D5865-04, ASTM D240, ASTM E711-87 (1996)	Btu/lb
	Biomass	ASTM E711-87 (1996) or equivalent, ASTM D240, or ASTM D5865-04	
	Other Solids	ASTM-5865-03a, ASTM D240, ASTM E711-87 (1997)	
	Liquid	ASTM-5865-03a, ASTM D240, ASTM E711-87 (1996)	
Moisture	Coal, Biomass, Other Solids	ASTM-D3 173-03, ASTM E871-82 (1998) or equivalent, EPA 160.3 Mod, or ASTM D2691-95 for coal.	%
Mercury Concentration	Coal	ASTM D6722-01, EPA Method 1631E, SW-846-1631, EPA 821-R-01-013, or equivalent	ppm
	Biomass	SW-846-7471A, EPA Method 1631E, SW-846-1631, ASTM D6722-01, EPA 821-R-01-013, or equivalent	
	Other Solids	SW-846-7471A, EPA Method 1631E, SW-846-1631, EPA 821-R-01-013, or equivalent	
	Liquid	SW-846-7470A, EPA Method 1631E, SW-846-1631E, SW-846-1631, EPA 821-R-01-013, or equivalent	
Total Selected Metals Concentration	Coal	SW-846-6010B, ASTM D3683-94 (2000), SW-846-6020, -6020A or ASTM D6357-04 (for arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel in coal) ASTM D4606-03 or SW-846-7740 (for Se)	ppm
	Biomass	SW-846-7060 or 7060A (for As) SW-846-6010B, ASTM D6357-04, SW-846-6020, -6020A, EPA 200.8, or ASTM E885-88 (1996) or equivalent, SW-846-7740 (for Se)	
	Other Solids	SW-846-7060 or -7060A (for As) SW-846-6010B, EPA 200.8	
	Liquid	SW-846-7060 or 7060A for As SW-846-6020, -6020A, , SW-846-6010B, SW-846-7740 for Se, SW-846-7060 or -7060A for As	
Chlorine Concentration	Coal	SW-846-9250 or ASTM D6721-01 or equivalent, SW-846-5050, -9056, -9076, or -9250, ASTM E776-87 (1996).	ppm
	Biomass, Other Solids, Liquids	ASTM E776-87 (1996), SW-846-9250, SW-846-5050, -9056, -9076, or -9250	
Fluorine Concentration	Coal	ASTM D3761-96(2002), D5987-96 (2002)	ppm

Report the results of your fuel analysis according to the directions provided in section 3.0 of this enclosure.

3.0 How to Report Data

The method for reporting the results of any testing and monitoring requests depend on the type of tests and the type of methods used to complete the test requirements. This section discusses the requirements for reporting the data.

3.1 Reporting stack test data

If you conducted a stack test using one of the methods listed in Table 3.1, (Method 6C, Method 7E, Method 10, Method 17, Method 25A, Method 26A, Method 29, Method 101, Method 101A, Method 201A, Method 202) you must report your data using the EPA Electronic Reporting Tool (ERT) Version 3. At present, only these methods are supported by the ERT. ERT is a Microsoft © Access database application. Two versions of the ERT application are available. If you are not a registered owner of Microsoft © Access, you can install the runtime version of the ERT Application. Both versions of the ERT are available at http://www.epa.gov/ttn/chief/ert/ert_tool.html. The ERT supports an Excel spreadsheet application (which is included in the files downloaded with the ERT) to document the collection of the field sampling data. After completing the ERT, will also need to attach an electronic copy of the emission test report (PDF format preferred) to the Attachments module of the ERT.

Table 3.1: List of Test Methods Supported by ERT

Test Methods Supported by ERT
Methods 1 through 4
Method 7E
Method 6C
Method 5
Method 3A
Method 29
Method 26A
Method 25A
Method 202
Method 201A
Method 17
Method 101A
Method 101
Method 10
CT Method 40
CT Method 39

If you conducted a stack test using a method not currently supported by the ERT, you must report the results of this test in a Microsoft © Excel Emission Test Template. The Excel templates are specific to each pollutant and type of unit and they can be downloaded from {to be added later}. You must report the results of each test on appropriately labeled worksheet corresponding to the specific tests requested at your combustion unit. If more than one unit at your facility conducted a stack test using methods not currently supported by the ERT, you must make a copy of the worksheet and update the combustor ID in order to distinguish between each

separate test. After completing the worksheet, you must also submit an electronic copy of the emission test report (PDF format preferred).

If you have CO CEMS that meets performance specification-4 or a SO₂ and/or NO_x CEMS that meets performance specification-2 installed at your combustion unit, and you used CEMS data to meet CO, SO₂ and/or NO_x test requirements at your facility, you must report daily averages from 30 days of CEMS data in a Microsoft® Excel CEMS Template. The Excel templates are specific to each pollutant and type of unit and they can be downloaded from *{to be added later}*.

3.2 Reporting Fuel Analysis Data

If you conducted a fuel analysis, you must report the analysis results separately for each of the 12 samples in a Microsoft® Excel Fuel Analysis Template. The fuel samples collected in conjunction with the stack test are comprised of three composite samples, each of which is analyzed separately. The remaining nine additional fuel samples are also comprised of three composite samples, but only the combined composite samples are analyzed. The Excel template can be downloaded from *{to be added later}*. If you conducted fuel analysis on more than one type of fuel used during testing, or for more than one combustion unit, you must make a copy of the worksheet and update the combustor ID and fuel type in each worksheet order to distinguish between the separate fuel analyses.

3.3 Required Fields for ERT Reporting

This section outlines the required data entry fields for the ERT in order to satisfy the requirements of this ICR test program. Appendix A *{to be provided later}* lists each field within the ERT and notes whether or not the field is required or optional.

4.0 How to Submit Data

You may submit your data in one of three ways as listed below. However, in order to avoid duplicate data and keep all data for a particular facility together, we request that you submit all of the data requested from your facility in the same way. To submit your data:

- E-mail an electronic copy of all requested files to *{to be added later}*
- If the files are too large for your e-mail system, you may upload the electronic files to a FTP site (see directions for FTP site procedures below)
- Mail a CD or DVD containing an electronic copy of all requested files to the EPA address shown in your Section 114 letter. If no electronic copy is available, mail a hard copy of all requested files to the EPA address shown in your Section 114 letter.
- If you are submitting Confidential Business Information (CBI), you must mail a separate CD or DVD containing only the CBI portion of your data to the EPA address shown in your Section 114 letter.

The steps below outline how to upload files to the FTP site by using "My Computer" as well as by using a FTP Client software.

Directions for accessing the FTP site via "My Computer"...

{To be added later}

5.0 Definitions

The following definitions apply to the coal- and oil-fired electric utility steam generating unit test plan methods:

Equivalent means:

- (1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.
- (2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.
- (3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.
- (4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.
- (5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an "as received" basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.
- (6) An equivalent pollutant (mercury, TSM, or total chlorine) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in this test plan.

Voluntary Consensus Standards or VCS mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. States, such as California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, such as Department of Defense (DOD) and Department of Transportation (DOT).

This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

6.0 Contact Information for Questions on Test Plan and Reporting

For questions on how to report data using the ERT, contact:

Ron Myers
U.S. EPA
(919) 541-5407
myers.ron@epa.gov

or

Barrett Parker
U.S. EPA
(919) 541-5635
parker.barrett@epa.gov

For questions on the test methods contact:

Peter Westlin
U.S. EPA
(919) 541-1058
westlin.peter@epa.gov

OR

Gary McAlister
U.S. EPA
(919) 541-1062
mcalister.gary@epa.gov

For questions on the coal- and oil-fired electric utility steam generating unit test plan, including units selected to test and reporting mechanisms other than the ERT, contact:

William Maxwell
U.S. EPA
(919) 541-5430
maxwell.bill@epa.gov

For questions on uploading files to the FTP site, contact:

{To be provided later.}

Attachment 4.

**List of coal-fired electric utility steam generating units selected for HCl/HF/HCN acid gas
 HAP testing**

State	Facility Name	Coal rank	No. units	Scrubber
WI	J. P. Madgett	Subbituminous	1	N
MN	Black Dog Generating Plant	Subbituminous	2	N
KS	Tecumseh	Subbituminous; Bituminous	2	N
MO	Lake Road Plant	Subbituminous	1	N
WI	Columbia	Subbituminous	2	N
OK	Sooner	Subbituminous	2	N
NE	Lon Wright	Subbituminous	1	N
IA	Burlington	Subbituminous	1	N
MO	Thomas Hill	Subbituminous	3	N
OK	Muskogee	Subbituminous	3	N
OK	Northeastern	Subbituminous	2	N
TX	Coleta Creek	Subbituminous; Bituminous	1	N
KS	Nearman Creek	Subbituminous	1	N
MN	Laskin Energy Center	Subbituminous	2	N
NE	Gerald Gentleman Station	Subbituminous	2	N
AR	Flint Creek	Subbituminous	1	N
TX	Welsh	Subbituminous	3	N
MO	Labadie	Subbituminous	4	N
LA	Big Cajun 2	Subbituminous	3	N
MN	Clay Boswell Energy Center	Subbituminous	4	N
SD	Big Stone	Subbituminous	1	N
IA	Prairie Creek	Subbituminous	2	N
MO	Sibley	Subbituminous; Bituminous	3	N
MT	J. E. Corette	Subbituminous	1	N
KS	Quindaro	Subbituminous	2	N
NE	Sheldon	Subbituminous; Bituminous	2	N
IA	Riverside	Subbituminous	1	N
IA	Ottumwa	Subbituminous	1	N
MI	Belle River Power Plant	Subbituminous	2	N
IA	George Neal South	Subbituminous	1	N
IA	Ames Electric Services Power Plant	Subbituminous	2	N
WI	Edgewater	Subbituminous	3	N
MO	Rush Island	Subbituminous	2	N
IA	Council Bluffs (Walter Scott, Jr.)	Subbituminous	4	N
AR	Independence	Subbituminous	2	N
WI	Pulliam	Subbituminous	6	N
IA	George Neal North	Subbituminous	3	N
IN	State Line	Subbituminous	2	N
MN	Hoot Lake	Subbituminous	2	N
AZ	Irvington	Bituminous; Subbituminous	1	N
CO	Martin Drake	Subbituminous	2	N
CO	Ray D. Nixon	Subbituminous	1	N
MO	New Madrid	Subbituminous	2	N
MI	Presque Isle	Subbituminous	7	N
AR	White Bluff	Subbituminous	2	N
IL	Waukegan	Subbituminous	3	N
IL	Will County	Subbituminous; Bituminous	4	N

State	Facility Name	Coal rank	No. units	Scrubber
WY	Naughton	Subbituminous	3	N
IL	Joliet 29	Subbituminous	4	N
IL	Havana	Bituminous	1	N
TX	J. T. Deely	Subbituminous	2	N
OR	Boardman	Subbituminous; Bituminous	1	N
IL	Newton	Subbituminous; Bituminous	2	N
IL	Fisk	Subbituminous	1	N
IL	Joliet 9	Subbituminous	1	N
IA	Sutherland	Subbituminous	3	N
IL	Crawford	Subbituminous	2	N
IL	Powerton	Subbituminous; Bituminous	4	N
OH	Bay Shore	Subbituminous; Bituminous	3	N
KY	Pineville	Bituminous	1	N
IN	Michigan City	Subbituminous; Bituminous	1	N
IN	Dean H. Mitchell	Bituminous - Low Sulfur	4	N
LA	Rodemacher Power Station Unit #2	Subbituminous	1	N
TN	John Sevier Fossil Plant	Bituminous	4	N
MS	Victor J. Daniel, Jr.	Subbituminous; Bituminous	2	N
ND	R. M. Heskett Station	Lignite	1	N
IL	Hutsonville	Bituminous	2	N
IL	Kincaid Generation L.L.C.	Subbituminous; Bituminous	2	N
MO	Sikeston Power Station	Subbituminous	1	N
AL	James H. Miller, Jr.	Subbituminous; Bituminous	4	N
ND	Leland Olds Station	Lignite	2	N
IN	Warrick Power Plant	Bituminous - High Sulfur	1	N
NE	Whelan Energy Center	Subbituminous	1	N
OK	Hugo	Subbituminous	1	N
NE	Nebraska City	Subbituminous; Bituminous	1	N
OH	Richard H. Gorsuch	Bituminous	4	N
WI	Weston	Subbituminous	3	N
NE	Platte	Subbituminous	1	N
WY	Dave Johnston	Subbituminous	4	N
MA	Salem Harbor	Bituminous	3	N
IL	Joppa Steam	Subbituminous	6	N
WI	Bay Front Plant Generating	Bituminous	1	N
TX	Monticello	Lignite; Subbituminous	3	N
NE	North Omaha	Subbituminous	5	N
GA	Kraft	Bituminous	3	N
TX	W. A. Parish	Subbituminous	4	N
MO	Southwest Power Station	Subbituminous	1	N
AL	E. C. Gaston	Bituminous	5	N
UT	Carbon	Bituminous	2	N
OH	Picway	Bituminous	1	N
KY	Henderson 1	Bituminous	1	N
KY	Green River	Bituminous	2	N
GA	Mitchell	Bituminous	1	N
TX	Sam Seymour	Subbituminous	3	N
GA	Yates	Bituminous	7	N
IN	Frank E. Ratts	Bituminous	2	N
MI	St. Clair Power Plant	Bituminous; Subbituminous	6	N
TX	Big Brown	Lignite	2	N
GA	Scherer	Subbituminous; Bituminous	4	N

Attachment 5.

List of coal-fired electric utility steam generating units selected for dioxin/furan organic HAP testing

State	Facility Name	Coal rank	No. units	Equipped with ACI
KY	William C. Dale	Bituminous	4	
VA	Cogentrix of Richmond	Bituminous	8	
MI	J. H. Campbell	Bituminous; Subbituminous	3	
KS	Holcomb	Subbituminous	1	
VA	Bremo Power Station	Bituminous	2	
FL	Central Power and Lime, Inc.	Bituminous	1	
KY	H. L. Spurlock	Bituminous	3	
GA	Wansley	Bituminous	2	
FL	Crist	Bituminous	4	
TX	Gibbons Creek	Subbituminous	1	
FL	F. J. Gannon	Bituminous	6	
NC	Roxboro	Bituminous	6	
MS	Jack Watson	Bituminous	2	
TX	Sam Seymour	Subbituminous	3	
UT	Bonanza	Bituminous	1	
MI	J. C. Weadock	Subbituminous; Bituminous	2	
MO	James River Power Station	Bituminous; Subbituminous	3	
IA	Earl F. Wisdom	Bituminous	1	
OH	Lake Shore	Bituminous	1	
AL	Barry	Bituminous	5	
NC	G. G. Allen	Bituminous	5	
FL	Big Bend	Bituminous; Subbituminous	4	
FL	Polk Power	Subbituminous	IGCC	
NC	Cliffside	Bituminous	5	
MA	Somerset	Bituminous	1	
TN	Johnsonville Fossil Plant	Bituminous	10	
NC	Cape Fear	Bituminous	2	
NC	Tobaccoville Utility Plant	Bituminous	2	
KY	Ghent	Bituminous; Subbituminous	4	
OH	Kyger Creek	Bituminous	5	
OH	Miami Fort Station	Bituminous	5	
AL	Greene County	Bituminous	2	
FL	Lansing Smith	Bituminous	2	
CO	Arapahoe	Subbituminous	2	
MN	Silver Lake	Bituminous	1	
SC	W. S. Lee	Bituminous	3	
AL	Charles R. Lowman	Bituminous	3	
KY	John S. Cooper	Bituminous	2	
KY	Shawnee Fossil Plant	Bituminous; Subbituminous	10	
IL	Meredosia	Bituminous	5	

State	Facility Name	Coal rank	No. units	Equipped with ACI
WV	Mountaineer	Bituminous	1	
OH	Muskingum River	Bituminous	5	
VA	LG&E - Westmoreland Altavista	Bituminous	2	
VA	Mirant Potomac River	Bituminous	5	
MI	Dan E. Karn	Bituminous; Subbituminous	2	
MI	Marysville Power Plant	Bituminous	4	
MD	H. A. Wagner	Bituminous	2	
PA	Armstrong	Bituminous	2	
WI	Genoa	Bituminous; Subbituminous	1	
IN	Cayuga (IN)	Bituminous	2	
IL	Wood River	Bituminous	2	
WI	Alma	Bituminous; Subbituminous	2	
PA	Montour	Bituminous	2	
MO	Meramec	Bituminous; Subbituminous	4	
IL	Vermilion	Bituminous	2	
IN	R. M. Schahfer	Subbituminous; Bituminous	4	
VA	Mecklenburg Cogeneration Facility	Bituminous	2	
NJ	Deepwater	Bituminous	1	
PA	Brunner Island	Bituminous	3	
NC	Cogentrix Dwayne Collier Battle Cogen	Bituminous	4	
NC	Dan River	Bituminous	3	
GA	Bowen	Bituminous	4	
MI	River Rouge Power Plant	Bituminous; Subbituminous	2	
WV	Albright	Bituminous	3	
IA	Dubuque	Bituminous	3	
SC	Williams	Bituminous	1	
VA	LG&E - Westmoreland Southampton	Bituminous	2	
IN	Gibson Generating Station	Bituminous	5	
MO	Southwest Power Station	Subbituminous	1	
NY	AES Cayuga (formerly NYSEG Milliken)	Bituminous	2	
MI	Erickson	Bituminous; Subbituminous	1	
TN	Kingston Fossil Plant	Bituminous	9	
CT	AES Thames	Bituminous	2	
PA	Sunbury	Bituminous; Coal refuse	6	
NJ	Hudson	Bituminous	1	
GA	Hammond	Bituminous	4	
MO	Sloux	Bituminous; Subbituminous	2	
MI	J. R. Whiting	Bituminous; Subbituminous	3	
AL	James H. Miller, Jr.	Subbituminous; Bituminous	4	
VA	SEI - Birchwood Power Facility	Bituminous	1	

State	Facility Name	Coal rank	No. units	Equipped with ACI
VA	Chesapeake Energy Center	Bituminous	4	
IL	E. D. Edwards	Bituminous	3	
NC	Riverbend	Bituminous	4	
FL	Stanton Energy Center	Bituminous	2	
IA	Lansing	Bituminous; Subbituminous	2	
CO	Comanche	Subbituminous	2	
NC	Buck	Bituminous	5	
KY	Big Sandy	Bituminous	2	
VA	Glen Lyn	Bituminous	3	
OH	Waiter C. Beckjord	Bituminous	6	
CA	Mt. Poso Cogeneration	Bituminous; Subbituminous	1	
NC	Belews Creek	Bituminous	2	
CO	Hayden	Bituminous	2	
TX	Tolk	Subbituminous	2	
MD	R. Paul Smith	Bituminous	2	
CO	Valmont	Bituminous	1	
WV	Fort Martin	Bituminous	2	
MD	Mirant Dickerson	Bituminous	3	
NC	Marshall	Bituminous	4	
NY	Danskammer Generating Station	Bituminous	2	
VA	Chesterfield Power Station	Bituminous	4	
NJ	Logan Generating Plant	Bituminous	1	
NC	Mayo	Bituminous	2	
MI	James De Young	Bituminous	1	
FL	Indiantown Cogeneration Facility	Bituminous	1	
MA	Mount Tom	Bituminous	1	
NC	H. F. Lee	Bituminous	3	
OH	Hamilton	Bituminous	2	
PA	Homer City	Bituminous	3	
MS	R. D. Morrow, Sr. Generating Plant	Bituminous	2	
MD	Brandon Shores	Bituminous	2	
SC	H. B. Robinson	Bituminous	1	
MI	Eckert Station	Bituminous; Subbituminous	6	
MI	TES Filer City Station	Bituminous	1	
AZ	Coronado	Subbituminous	2	
TX	Harrington Station	Subbituminous; Bituminous	3	
OH	Cardinal	Bituminous	3	
VA	LG&E - Westmoreland Hopewell	Bituminous	2	
CO	Cherokee	Bituminous	4	
GA	Scherer	Bituminous; Subbituminous	4	
NC	Asheville	Bituminous	2	
WI	Nelson Dewey	Subbituminous	2	
OH	Killen Station	Bituminous	1	
FL	Deerhaven Generating Station	Bituminous	1	
KY	East Bend Station	Bituminous	1	
SC	Cope	Bituminous	1	
FL	Crystal River	Bituminous	4	

State	Facility Name	Coal rank	No. units	Equipped with ACI
MI	Harbor Beach Power Plant	Bituminous	1	
OH	J. M. Stuart	Bituminous	4	
IN	Tanners Creek	Bituminous; Subbituminous	4	
IN	Clifty Creek	Bituminous	6	
AL	Widows Creek Fossil Plant	Bituminous	8	
NC	L.V. Sutton	Bituminous	3	
WV	John E. Amos	Bituminous	3	
WV	Mitchell	Bituminous	2	
FL	St. Johns River Power Park	Bituminous	2	
NC	W. H. Weatherspoon	Bituminous	3	
MI	Presque Isle	Subbituminous	3	ACI
IA	Council Bluffs (a.k.a., Walter Scott, Jr.) Unit 4	Subbituminous	1	ACI
MT	Hardin Generator Project	Subbituminous	1	ACI
W	Weston Unit 4	Subbituminous	1	ACI
NM	San Juan Units 3, 4	Subbituminous	2	ACI
CT	Bridgeport Harbor Station	Bituminous	1	ACI
MA	Brayton Point	Bituminous	3	ACI
NJ	Mercer	Bituminous	2	ACI
NJ	B. L. England	Bituminous	1	ACI
NV	TS Power Plant	Subbituminous	1	ACI
DE	Indian River	Bituminous	3	ACI
DE	Edge Moor	Bituminous	2	ACI

Attachment 6.

**List of coal-fired electric utility steam generating units selected for non-dioxin/furan
 organic HAP testing**

State	Facility Name	Unit number	On-line year
AR	Plum Point Energy	1	2009
CO	Comanche	3	2009
IL	Dalman	34	2009
LA	Rodemacher Power Station	3	2009
NV	TS Power Plant	1	2009
TX	J. K. Spruce	BLR2	2009
TX	Oak Grove	1	2009
TX	Oak Grove	2	2009
TX	Sandow Station	5	2009
WI	South Oak Creek	1	2009
WY	Two Elk Generating Station	1	2009
CO	Lamar	4	2008
KY	H. L. Spurlock	4	2008
PA	River Hill Power Company LLC	31	2008
SC	Cross	4	2008
WI	Weston	4	2008
WY	Wygen II	1	2008
IA	Council Bluffs	4	2007
AZ	Springerville	3	2006
SC	Cross	3	2006
WI	Manitowoc	8	2006
KY	H. L. Spurlock	3	2005
MT	Hardin Generator Project	1	2005
PA	Seward	1	2004
PA	Seward	2	2004
IL	Marion	123	2003
WY	Wygen I	3	2003
FL	Northside Generating Station	1	2002
FL	Northside Generating Station	2	2002
MS	Red Hills Generating Facility	AA001	2002
MS	Red Hills Generating Facility	AA002	2002
PR	AES Puerto Rico (Aurora)	1	2002
PR	AES Puerto Rico (Aurora)	2	2002
MO	Hawthorn	5A	2001
MD	AES Warrior Run Cogeneration Facility	BLR1	2000
MI	B. C. Cobb	5	2000
OH	Bay Shore	1	2000
SC	Cogen South	B001	1999
FL	Stanton Energy Center	2	1996
VA	Birchwood Power	1A	1996
VA	Clover Power Station	2	1996
FL	Indiantown Cogeneration Facility	AAB01	1995
MT	Yellowstone Energy LP	BLR1	1995
MT	Yellowstone Energy LP	BLR2	1995
NC	Westmoreland-LG&E Roanoke Valley II	BLR2	1995
PA	Colver Power Project	ABB01	1995
PA	Northhampton Generating LP	BLR1	1995

State	Facility Name	Unit number	On-line year
SC	Cope	COP1	1995
SC	Cross	1	1995
VA	Clover Power Station	1	1995
WY	Neil Simpson II	2	1995
FL	Cedar Bay Generating LP	CBA	1994
FL	Cedar Bay Generating LP	CBB	1994
FL	Cedar Bay Generating LP	CBC	1994
NJ	Chambers Cogeneration LP	BOIL1	1994
NJ	Chambers Cogeneration LP	BOIL2	1994
NJ	Logan Generating Plant	B01	1994
NC	Westmoreland-LG&E Roanoke Valley I	BLR1	1994
PA	Scrubgrass Generating	UNIT 1	1993
PA	Scrubgrass Generating	UNIT 2	1993
UT	Sunnyside Cogen Associates	1	1993
HI	AES Hawaii	A	1992
HI	AES Hawaii	B	1992
LA	R. S. Nelson	2A	1992
LA	R. S. Nelson	1A	1992
PA	Panther Creek Energy Facility	BLR1	1992
PA	Panther Creek Energy Facility	BLR2	1992
PA	Piney Creek Project	BRBR1	1992
TX	J. K. Spruce	BLR1	1992
VA	Altavista Power Station	1	1992
VA	Cogentrix of Richmond	1A	1992
VA	Cogentrix of Richmond	1B	1992
VA	Cogentrix of Richmond	2A	1992
VA	Cogentrix of Richmond	2B	1992
VA	Cogentrix of Richmond	3A	1992
VA	Cogentrix of Richmond	3B	1992
VA	Cogentrix of Richmond	4A	1992
VA	Cogentrix of Richmond	4B	1992
VA	Mecklenburg Cogeneration Facility	BLR1	1992
VA	Mecklenburg Cogeneration Facility	BLR2	1992
VA	Southampton Power Station	1	1992
WV	Grant Town Power Plant	BLR1A	1992
WV	Grant Town Power Plant	BLR1B	1992
WV	North Branch	1A	1992
WV	North Branch	1B	1992
AL	James H. Miller, Jr.	4	1991
CO	Nucla	1	1991
MD	Brandon Shores	2	1991
OH	W. H. Zimmer Generating Station	1	1991
OK	AES Shady Point	1A	1991
OK	AES Shady Point	1B	1991
OK	AES Shady Point	2A	1991
OK	AES Shady Point	2B	1991
PA	Cambria Cogen	B1	1991
PA	Cambria Cogen	B2	1991
TX	Twin Oaks Power Station (formerly TNP-One)	U2	1991
WV	Morgantown Energy Facility	CFB1	1991
WV	Morgantown Energy Facility	CFB2	1991
AZ	Springerville	2	1990

State	Facility Name	Unit number	On-line year
CA	ACE Cogeneration Facility	CFB	1990
CT	AES Thames	A	1990
CT	AES Thames	B	1990
KY	Shawnee Fossil Plant	10	1990
KY	Trimble County	1	1990
ME	Rumford Cogeneration	6	1990
ME	Rumford Cogeneration	7	1990
MI	TES Filer City Station	1	1990
MI	TES Filer City Station	2	1990
MT	Colstrip Energy LP	BLR1	1990
NC	Cogentrix Dwayne Collier Battle Cogen	1A	1990
NC	Cogentrix Dwayne Collier Battle Cogen	1B	1990
NC	Cogentrix Dwayne Collier Battle Cogen	2A	1990
NC	Cogentrix Dwayne Collier Battle Cogen	2B	1990
PA	Ebensburg Power	031	1990
PA	Foster Wheeler Mt. Carmel Cogen	SG-101	1990
PA	St. Nicholas Cogeneration Project	1	1990
TX	Twin Oaks Power Station (formerly TNP-One)	U1	1990
AL	James H. Miller, Jr.	3	1989
CA	Mt. Poso Cogeneration	BL01	1989
CA	Rio Bravo Jasmin	CFB	1989
CA	Rio Bravo Poso	CFB	1989
GA	Scherer	4	1989
IN	Rockport	MB2	1989
PA	Kline Township Cogen Facility	1	1989
PA	P. H. Glatfelter	5PB036	1989
CA	Stockton Cogen	BLR1	1988
FL	Central Power and Lime, Inc.	1	1988
FL	St. Johns River Power Park	2	1988
PA	John B. Rich Memorial Power Station	CFB1	1988
PA	John B. Rich Memorial Power Station	CFB2	1988
PA	Wheelabrator Frackville Energy	BLR1	1988
TX	Fayette Power Project	3	1988
FL	St. Johns River Power Park	1	1987
FL	Stanton Energy Center	1	1987
GA	Scherer	3	1987
MN	Sherburne County Generating Plant	3	1987
NY	Danskammer Generating Station	3	1987
NY	Danskammer Generating Station	4	1987
PA	AES Beaver Valley Partners Beaver Valley	2	1987
PA	AES Beaver Valley Partners Beaver Valley	3	1987
PA	AES Beaver Valley Partners Beaver Valley	4	1987
PA	WPS Westwood Generation LLC	031	1987
SC	Stone Container Florence Mill	PB4	1987
UT	Intermountain Power Project	2SGA	1987
IN	A. B. Brown	2	1986
IN	Petersburg	4	1986
IN	R. M. Schahfer	18	1986
KY	D. B. Wilson	W1	1986
LA	Dolet Hills Power Station	1	1986
MT	Colstrip	4	1986
ND	Antelope Valley	B2	1986

State	Facility Name	Unit number	On-line year
OK	GRDA	2	1986
PA	Chester Operations	10	1986
TX	AES Deepwater	AAB001	1986
TX	Limestone	LIM2	1986
TX	Oklunion	1	1986
UT	Bonanza	1-1	1986
UT	Intermountain Power Project	1SGA	1986
AL	James H. Miller, Jr.	2	1985
AL	Mobile Energy Services LLC	7PB	1985
AZ	Springerville	1	1985
AR	Independence	2	1985
FL	Big Bend	BB04	1985
MI	Belle River Power Plant	2	1985
NV	North Valmy Generating Station	2	1985
TX	Limestone	LIM1	1985
TX	H. W. Pirkey	1	1985
TX	Tolk	172B	1985
WI	Edgewater	5	1985
WI	Pleasant Prairie	2	1985
CO	Craig	C3	1984
CO	Rawhide	101	1984
FL	Crystal River	5	1984
FL	Seminole	1	1984
FL	Seminole	2	1984
GA	Scherer	2	1984
IN	Rockport	MB1	1984
KY	Ghent	4	1984
LA	Big Cajun 2	2B3	1984
MD	Brandon Shores	1	1984
MI	Belle River Power Plant	1	1984
MT	Colstrip	3	1984
NM	Escalante	1	1984
NY	AES Somerset LLC	1	1984
ND	Antelope Valley	B1	1984
OK	Muskogee	6	1984
SC	Cross	2	1984
AR	Independence	1	1983
IN	Merom	1SG1	1983
IN	R. M. Schahfer	17	1983
IA	Louisa	101	1983
IA	Muscatine Plant #1	9	1983
KS	Holcomb	SGU1	1983
KS	Jeffrey Energy Center	3	1983
MI	J. B. Sims	3	1983
MI	Shiras	3	1983
NV	Reid Gardner	4	1983
NC	Mayo	1A	1983
NC	Mayo	1B	1983
TX	Gibbons Creek	1	1983
UT	Hunter	3	1983
FL	C. D. McIntosh, Jr.	3	1982
FL	Crystal River	4	1982

State	Facility Name	Unit number	On-line year
GA	Scherer	1	1982
IL	Newton	2	1982
IN	Gibson Generating Station	5	1982
IN	Merom	2SG1	1982
IA	Arnes Electric Services Power Plant	8	1982
KY	Mill Creek	4	1982
LA	R. S. Nelson	6	1982
LA	Rodemacher Power Station	2	1982
MI	Endicott Station	1	1982
MO	Thomas Hill	MB3	1982
NE	Gerald Gentleman Station	2	1982
NE	Platte	1	1982
NM	San Juan	4	1982
ND	Stanton Station	10	1982
OH	Killen Station	2	1982
OK	GRDA	1	1982
OK	Hugo	1	1982
TX	San Miguel	SM-1	1982
TX	Tolk	171B	1982
TX	W. A. Parish	WAP8	1982
TX	Welsh	3	1982
WY	Laramie River Station	3	1982
AZ	Cholla	4	1981
AR	White Bluff	2	1981
CO	Pawnee	1	1981
FL	Deerhaven Generating Station	B2	1981
IA	Ottumwa	1	1981
KS	Nearman Creek	N1	1981
KY	East Bend Station	2	1981
KY	Ghent	3	1981
KY	H. L. Spurlock	2	1981
KY	R. D. Green	G2	1981
LA	Big Cajun 2	2B2	1981
MS	Victor J. Daniel, Jr.	2	1981
MO	Sikeston Power Station	1	1981
NE	Whelan Energy Center	1	1981
NV	North Valmy Generating Station	1	1981
ND	Coal Creek	2	1981
ND	Coyote	B1	1981
SC	Winyah	4	1981
TX	Sandow Station	4	1981
WI	Weston	3	1981
WY	Laramie River Station	2	1981
AL	Charles R. Lowman	3	1980
AZ	Cholla	3	1980
AZ	Coronado	U2B	1980
AR	White Bluff	1	1980
CO	Craig	C1	1980
CO	Ray D. Nixon	1	1980
DE	Indian River	4	1980
KS	Jeffrey Energy Center	2	1980
LA	Big Cajun 2	2B1	1980

Attachment 8.

List of oil-fired electric utility steam generating units

State	Facility Name	No. Units
CT	Bridgeport Harbor Station	1
CT	Devon	2
CT	Middletown	3
CT	Montville	2
CT	New Haven Harbor	1
CT	Norwalk Harbor Station	2
DC	Benning	2
DE	Edge Moor	1
DE	McKee Run	3
FL	Andote	2
FL	C. D. McIntosh, Jr.	2
FL	Cape Canaveral	2
FL	Indian River	3
FL	Manatee	2
FL	Martin	2
FL	Northside Generating Station	1
FL	P. L. Bartow	3
FL	Port Everglades	4
FL	Riviera	2
FL	Sanford	1
FL	Suwannee River	3
FL	Turkey Point	2
GA	McManus	2
GU	Cabras	2
GU	Tanguisson Power Plant	1
HI	Honolulu	2
HI	Kahe	6
HI	Waiau	6
IL	Havana	8
IL	Meredosia	1
IN	Edwardsport	1
IN	Harding Street Station (a.k.a., E. W. Stout Generating Station)	2

**STANDARD FORM 83-I SUPPORTING STATEMENT
FOR OMB REVIEW OF EPA ICR No. 2362.01:**

**INFORMATION COLLECTION REQUEST FOR NATIONAL EMISSION
STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FOR COAL- AND
OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS**

Sector Policies and Programs Division
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

June 17, 2009

Attachment 2.

Industry Burden and Costs for Responding to the Questionnaire

Activity	(A) Hours per Occurrence	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)*	(G) Clerical Hours/Year (E x 0.30)	(H) Cost/Year
1. APPLICATIONS (Not Applicable)								
2. SURVEY AND STUDIES (Not Applicable)								
3. ACQUISITION, INSTALLATION, AND UTILIZATION OF TECHNOLOGY AND SYSTEMS (Not Applicable)								
4. REPORT REQUIREMENTS								
A. Read Instructions								
Facility	2	1	2	599	1,110.0	55.5	111.0	\$120,000
B. Required Activities								
Gather existing reports with requested data	8	3	8	1325	10,600.0	530.0	1,060.0	\$1,146,401
Extract requested data from reports	8	3	8	1325	10,600.0	530.0	1,060.0	\$1,146,401
Enter extracted data into Web Site	16	3	16	1325	71,200.0	1,060.0	2,120.0	\$2,792,802
QA/QC entered data on Web Site	8	3	8	1325	10,600.0	530.0	1,060.0	\$1,146,401
Read Test Plan provided by EPA for stack testing	0.7	1	0.7	471	329.7	16.5	38.0	\$35,657
Procure contractor to perform testing	20	1	20	471	9,420.0	471.0	942.0	\$1,018,783
Submit stack test results through the ERT	2	1	2	471	942.0	47.1	94.2	\$101,878
QA/QC entered data on Web Site	1	1	1	471	471.0	23.6	47.1	\$50,939
PCI and HF testing from coal-fired utility units (w/ and w/o FGD)**		217						\$8,246,000
Methoxy/uran emissions from coal-fired utility units**		149						\$7,450,000
Non-Dioxin/furan emissions (CO, VOC, and THC) from coal-fired utility units**		184						\$19,688,000
Hg and non-Hg Metallic HAPs from coal-fired utility units**		214						\$34,824,000
All HAP surrogates from oil-fired utility units**		116						\$35,082,000
Plant personnel for testing***	16	3	48	471	22,608.0	226.1	-	\$2,731,193
Review the Test Report Data	5	1	5	471	2,355.0	117.8	-	\$275,854
C. Create Information (Included in 4B)								
D. Gather Existing Information (Included in 4E)								
E. Write Report (Not Applicable)								
5. RECORDKEEPING REQUIREMENTS (Not Applicable)								
TOTAL ANNUAL LABOR BURDEN AND COST					90,236	3,607	6,527	\$104,807,450
ANNUAL CAPITAL COSTS (Not Applicable)						180,370 Hours		\$ -
ANNUALIZED CAPITAL COSTS (Not Applicable)								\$ -
TOTAL ANNUAL COSTS (O&M) (Not Applicable)								\$ -
TOTAL ANNUALIZED COSTS (Annualized capital + O&M costs) (Not Applicable)								\$ -

*We assumed no clerical hours and less managerial hours were needed when plant personnel were working with Contractors to conduct testing

**This is the assumed testing costs for facilities when testing is performed by a Contractor

***This assumes 3 facility technical staff over 2 days for working with the Contractor to conduct testing. All administrative work is assumed to be included in the contractor testing and no facility administrative staff is required for testing.

**Attachment 3.
Agency Burden and Costs**

Activity	(A) EPA Hours/ Occurrence	(B) Occurrences/ Plant/Year	(C) EPA Hours/ Plant/Year (A x B)	(D) Plants/ Year	(E) EPA Technical Hours/Year (C x D)	(F) EPA Managerial Hours/Year	(G) EPA Clerical Hours/Year	(H) Cost, \$
Develop questionnaire	80	1	80	1	80.0	4.0	8.0	\$ 4,838
Develop web site for data entry from facilities	120	1	120	1	120.0	6.0	12.0	\$ 7,257
Mail out Questionnaire	4	1	4	555	2,220.0	111.0	222.0	\$ 134,250
Answer respondent questions	0.25	1	0.25	55.5	13.9	0.7	1.4	\$ 839
Analysis request for confidentiality	0.25	1	0.25	132.5	33.1	1.7	3.3	\$ 2,003
Review and Analyze responses	4	1	4	1325	5,300.0	265.0	530.0	\$ 320,506
Review the electronically submitted stack testing data	5	1	5	880	4,400.0	220.0	440.0	\$ 256,080
Total Annual Hours					12,167	608.35	1,217	\$ 735,773
						13,992	hours	
Expenses								
Printing Questionnaire	\$ 694							
Postage to mail Questionnaire Registered Mail/Receipt	\$ 6,771							
Computer Storage of data and web interface	\$ 1,200							
Total Expenses								\$ 8,665
								\$ 744,437

We assume that EPA will mail one questionnaire to each facility.
Assumes that 10% of the facilities will have questions
Assumes that 10% of the units will have confidential data



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:

FP&L Cape Canaveral Plant
6000 North U.S. Highway 1
Cocoa, FL 32927

PERMIT NUMBER:
PA FILE NUMBER:
ISSUANCE DATE:
EXPIRATION DATE:

FL0001473 (Major)
FL0001473-008-IW1S
August 10, 2005
August 9, 2010

RESPONSIBLE AUTHORITY:

Mr. Lowell Trotter
Plant General Manager

FACILITY:

FP&L Cape Canaveral Plant
6000 North U.S. Highway 1
Cocoa, FL 32927
Brevard County

Latitude: 28° 28' 10" N Longitude: 80° 45' 54" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The plant consists of two steam electric generating units. Units 1 and 2 have a nominal generating capacity of 400 megawatts.

The plant uses a once-through condenser cooling water system. Condenser cooling water is drawn from the Indian River through an intake canal located on the southern end of the plant. The cooling water passes through the plant condensers and then discharged back to the Indian River via two 78-inch underground pipes that empty into their respective outfall structures. The discharge structures for the two units are located approximately 550 feet apart. Auxiliary equipment cooling water from both units is discharged to the Indian River through a single 18-inch outfall pipe located approximately midway between the once-through cooling outfall structures.

The main condenser Once-Through Cooling Water (OTCW) is chlorinated at the intake for both units. The facility dechlorinates the once-through cooling water using sodium bisulfite prior to discharge. Auxiliary Equipment Cooling Water (AECW) may also be chlorinated using continuous low level chlorination. Boiler blowdown is captured and reused. Wastewater from the on-site water treatment system is discharged via existing Outfall D-030 to the Indian River until 6 months beyond the issuance date of this permit. After such time, wastewater from the on-site

"More Protection, Less Process"

Printed on recycled paper.

PERMITTEE: PERMIT NUMBER: FL0001473
FP&L Cape Canaveral Plant Issuance date: August 10, 2005
6000 North U.S. Highway 1 Expiration date: August 9, 2010
Cocoa, FL 32927

water treatment system will be discharged internally to the ABCW outfall or, alternatively, to the OTCW outfalls.

WASTEWATER TREATMENT:

Wastewater generated during metal cleaning operations is discharge to the two lined Solids Settling Basins (B-1A and B-1B). Reverse osmosis reject from boiler blowdown source water and boiler chemical cleaning rinses (in which EDTA, Citro-Solv or equivalent cleaner is used in the cleaning operation) may also be routed to the solids settling basins. The wastewater in the basins is treated by adding caustic that allows for the precipitation of metals followed by sedimentation. Treated effluent from the solids settling basins is routed to the Evaporation/Percolation Basin (EP-1) and acid is added for pH adjustment. Treated wastewater from the evaporation/percolation basin is used for spray irrigation on the berms of the fuel oil containment area. This area is designated as E/P Basin Spray Area (SP-1).

Stormwater runoff and drainage from equipment areas and fuel oil handling facilities as well as equipment rinse water in the power block areas are collected via floor drains. The collected runoff is then routed through oil removal devices prior to discharge to the equipment area runoff treatment and disposal system consisting of the Forwarding Sump (S-3), Equipment Area Runoff Basin (B-3), organo-clay polishing filters, and the Runoff Disposal Area (DA-1). Under light rainfall conditions, runoff from the forwarding sump is routed through the organo-clay filters directly to the Disposal Area DA-1. Under medium and chronic rainfall conditions (up to one inch of rainfall), the runoff from the forwarding sump is routed to the Runoff Basin B-3 and then pumped through the organo-clay filters to the runoff Disposal Area DA-1. On rare occasions and under chronic heavy rainfall conditions (in excess of one inch rainfall), the runoff that is not routed to the runoff basin or pumped through the organo-clay filters to the runoff disposal area, overflows at the forwarding sump and discharged to the Indian River via Outfall D-016.

EFFLUENT DISPOSAL:

Surface Water Discharge:

An existing discharge of 332 MGD annual average flow and 396 MGD maximum daily flow to Indian River (Class III Marine waters), D-011. The once-through cooling water from Unit 1 is located approximately at latitude 28° 28' 11" N, longitude 80° 45' 46" W.

An existing discharge of 332 MGD annual average flow and 396 MGD maximum daily flow to Indian River (Class III Marine waters), D-012. The once-through cooling water outfall from Unit 2 is located approximately at latitude 28° 28' 14" N, longitude 80° 45' 50" W.

An existing discharge of 13.8 MGD annual average flow and 30.0 MGD maximum daily flow to the Indian River (Class III Marine waters), D-015. The auxiliary equipment cooling water outfall for Units 1 & 2 line is located approximately at latitude 28° 28' 12" N, longitude 80° 45' 48" W.

An existing discharge to Indian River (Class III Marine waters), D-016. The equipment area runoff basin overflow outfall is located approximately at latitude 28° 28' 18" N, longitude 80° 45' 51" W.

An existing discharge to Indian river (Class III Marine waters), D-028. The stormwater from fuel oil storage tank secondary containment area outfall is located approximately at latitude 28° 28' 18" N, longitude 80° 45' 51" W.

An existing discharge to Indian River (Class III Marine waters), D-029. The non-equipment area stormwater outfall is located approximately at latitude 28° 28' 12" N, longitude 80° 45' 48" W.

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An existing discharge to Indian River (Class III Marine waters), D-030. The water treatment system wastewater outfall is located approximately at latitude 28° 28' 18" N, longitude 80° 45' 51" W.

Land Application:

An existing land application system (G-010) consisting of Evaporation/Percolation Basin (EP-1) and E/P Basin Spray Area (SP-1). The Evaporation/Percolation Basin (EP-1) is located approximately at latitude 28° 28' 14" N, longitude 80° 45' 51" W. The E/P Basin Spray Area (SP-1) is located approximately at latitude 28° 28' 16" N, longitude 80° 45' 53" W.

An existing land application system (G-020) consisting of Equipment Area Runoff Basin (B-3) and Runoff Disposal Area (DA-1). The Equipment Area Runoff Basin (B-3) is located approximately at latitude 28° 28' 10" N, longitude 80° 45' 54" W. The Runoff Disposal Area (DA-1) is located approximately at latitude 28° 28' 08" N, longitude 80° 45' 55" W.

Internal Outfalls:

This permit authorizes discharge of 0.05 MGD annual average flow from internal Outfall I-017 to the ABCW Outfall (D-015) or, alternatively, to the OTCW Outfalls (D-011 and D-012).

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 4 through 26 of this permit.

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L. Effluent Limitations and Monitoring Requirements

A. Surface Water Discharges

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge **Once-Through Cooling Water (OTCW)** from Outfalls D-011 and D-012. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations				Monitoring Requirements		
	Monthly Average	Instantaneous Maximum	Maximum Daily Average	Instantaneous Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	--	Continuous	Calculated	FLW-1, FLW-2
Chlorination (HOURS/UNIT/DAY)	--	2.0	--	--	Daily	Calculated	OTH-1, OTH-2
Oxidants, Total Residual (MG/L)	--	--	0.01	--	Weekly	Grab ¹	EFF-1, EFF-2
Temperature (F), Water (DEG.F)	Report ²	Report ³	--	--	6/Day	Instantaneous	EFF-1, EFF-2
Dissolved Oxygen (MG/L)	--	--	--	Report	Monthly ³	Grab	INT-1 and EFF-1 or INT-2 and EFF-2

2. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
FLW-1, FLW-2	Once-through cooling water intake for Units 1 and 2, respectively, flow monitoring location.
EFF-1, EFF-2	Once-through cooling water discharge structures for Units 1 and 2, respectively.
INT-1, INT-2	Once-through or auxiliary equipment cooling water for Units 1 and 2, respectively.
OTH-1, OTH-2	At the point of chlorine addition for Units 1 and 2, OTCW

¹ Grab samples shall consist of multiple samples collected at approximately the beginning, middle, and end of the chlorination period.

² Discharge from Outfall D-001 is subject to thermal limitations established by Rule 62-302.520(1), F.A.C.

³ Grab samples for both the intake and discharge shall be taken concurrently every 4 hours, for 24 hours, once month. Intake and discharge sampling during a monthly sampling event is only required from one power plant unit, i.e. Unit 1 or Unit 2. The permittee may request a reduction or discontinuance of these monitoring requirements after 12 months of monitoring.

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3. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Auxiliary Equipment Cooling Water (AECW) from Units 1 and 2 used in lieu of OTCW from Outfall D-013 (formerly D-0D1) and Outfall D-014 (formerly D-0D2). Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Maximum Daily Average	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Continuous	Calculated	FLW-3 FLW-4
Temp. Diff. between Intake and Discharge (DEG.F)	--	--	20.0	6/Day	Calculated	INT-1 INT-2 EFF-1 EFF-2
Oxidants, Total Residual (MG/L)	--	0.01		Weekly	Grab ⁴	EFF-1 EFF-2
Chlorination (HOURS/UNIT/DAY)	--	24	--	Daily	Calculated	OTH-3

4. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
FLW-3, FLW-4	Auxiliary equipment cooling water intake for Units 1 and 2, respectively, flow monitoring location.
INT-1, INT-2	Once-through or auxiliary equipment cooling water intake for Units 1 and 2, respectively.
EFF-1, EFF-2	Once-through cooling water discharge structures for Units 1 and 2, respectively.
OTH-3	At the point of chlorine addition for Units 1 and 2 AECW

⁴ Multiple grabs shall be collected during daylight hours every 4 hours during TRO discharge.

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5. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Units 1 and 2 Auxiliary Equipment Cooling Water from Outfall D-015 (formerly D-081). Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Maximum Daily Average	Instantaneous Maximum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Continuous	Calculated	FLW-3 FLW-4
Oxidants, Total Residual (MG/L)	--	0.01	--	Weekly	Grab ⁵	BFF-3
Chlorination (HOURS/UNIT/DAY)	--	24	--	Daily	Calculated	OTH-3

6. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
FLW-3, FLW-4	Flow monitoring location for auxiliary equipment cooling water for Units 1 and 2, respectively.
OTH-3	At the point of chlorine addition for Units 1 and 2 ABCW
BFF-3	Combined auxiliary equipment water cooling discharge from Units 1 and 2 prior to actual discharge to the receiving waters or mixing with other waste streams

⁵ Multiple grabs shall be collected during daylight hours every 4 hours during TRO discharge.

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7. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to Equipment Area Runoff Basin Overflow from Outfall D-016 (formerly D-0B0). Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Maximum Daily Average	Instantaneous (Min/Max)	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Per Discharge ⁶	Calculated	EFF-4
Oil & Grease (MG/L)	Report	5.0	--	Per Discharge ⁶	Grab	EFF-4
Solids, Total Suspended (MG/L)	30.0	100.0	--	Per Discharge ⁶	Grab	EFF-4
pH Range (SU)	--	--	6.0 to 9.0	Per Discharge ⁶	Grab	EFF-4

8. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
EFF-4	Discharge from the forwarding sump prior to actual discharge to receiving waters or mixing with other waste stream.

9. During the period beginning on the issuance date and lasting until 6 months beyond the issuance date, the permittee is authorized to discharge Water Treatment Plant Wastewater from existing Outfall D-030 to the Indian River. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Monthly Average	Maximum Daily Average	Instantaneous	Annual Average	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	--	2/Month	Calculated	EFF-5
Solids, Total Suspended (MG/L)	30.0	100.0	--	--	2/Month	Composite ⁷	EFF-5
Oil and Grease (MG/L)	--	5.0	--	--	2/Month	Grab	EFF-5
pH Range (S.U.)	--	--	6.0 to 9.0	--	2/Month	Grab	EFF-5

⁶ Monitoring of discharge from the Oil separator/Forwarding Sump is not required provided the first one inch rainfall is retained by the Stormwater Basin and associated spray field. Subsequent overflow may be discharged without monitoring requirements, except that there shall be no discharge of a visible oil sheen. In the event that these conditions are not met, monitoring shall be 1/discharge.

⁷ Shall be defined as a composite of grab samples taken at the beginning, middle and end of the Backwash Basin discharge period.

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10. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
EFF-5	At the point of discharge to the receiving waters.

11. During the period beginning at initiation of discharge and lasting through the expiration date of this permit, the permittee is authorized to discharge Water Treatment Plant Wastewater from Outfall I-017 to the ABCW Outfall (D-015) or to the OTCW Outfalls (D-011 and D-012). Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Monthly Average	Maximum Daily Average	Instantaneous	Annual Average	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	--	2/Month	Calculated	OUI-1
Solids, Total Suspended (MG/L)	30.0	100.0	--	--	2/Month	Grab	OUI-1
Oil and Grease (MG/L)	15.0	20.0	--	--	2/Month	Grab	OUI-1
pH Range (S.U.)	--	--	6.0 to 9.0	--	2/Month	Grab	OUI-1
Nitrogen, Total as N (LBS/DAY)	--	--	--	7.0	Monthly	Grab	OUI-1
Phosphorus, Total as P, (LBS/DAY)	--	--	--	0.4	Monthly	Grab	OUI-1

12. Effluent samples shall be taken at the monitoring site locations listed above and as described below:

Sample Point	Description of Monitoring Location
OUI-1	At the point of discharge to the ABCW or OTCW conduits.

13. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall D-028 (formerly D-0B), stormwater from the fuel oil storage tank secondary containment area, provided such discharges are limited and monitored by the permittee as specified below:

- a. The facility shall have a valid Spill Prevention Control and Countermeasure (SPCC) Plan pursuant to 40 CFR Part 112.
- b. The facility shall endeavor to retain the stormwater in the containment area to the maximum extent practicable before discharging from Outfall D-028. The discharge from Outfall D-028 shall only occur due to tank and equipment integrity and safety concerns.
- c. In draining the diked area, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining.
- d. Monitoring records shall be maintained in the form of a log and shall contain the following information, as a minimum:

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- Date and time of discharge;
 - Estimated volume of discharge;
 - Initials of person making visual inspection and authorizing discharge; and
 - Observed conditions of storm water discharged.
- e. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of a visible oil sheen at any time.
14. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge Outfall D-029 (formerly D-0S0), non-equipment area stormwater. Discharge of non-equipment area stormwater is permitted without limitation or monitoring requirements.
15. OTCW and ABCW limitations and monitoring requirements for TRO are not applicable for any week in which chlorine is not added to Units 1 or 2.
16. Intake Screen wash water may be discharged without limitation or monitoring requirements, except that there shall be no discharge of a visible sheen.
17. There shall be no discharge of floating solids or visible foam in other than trace amounts.
18. The discharge shall not cause a visible sheen on the receiving water.

B. Underground Injection Control Systems

1. This section is not applicable to this facility.

C. Land Application Systems

1. The discharge from land application systems G-010 and G-020 is authorized without limitations or monitoring requirements.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated June 21, 1996, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
- a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

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- b. The laboratory reported PQL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a PQL, which is equal to or less than the applicable water quality criteria stated in 62-302 FAC; and
- c. If the PQLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated PQL shall be used.

Where the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. However, where necessary, the permittee may request approval for alternative methods or for alternative MDLs and PQLs for any approved analytical method, in accordance with the criteria of Rules 62-160.520 and 62-160.530, F.A.C.

- 2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136.
- 3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department, at the address listed below, the Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	DMR Due Date
Monthly or Toxicity	first day of month – last day of month	28 th day of following month
Quarterly	January 1 - March 31	April 28
	April 1 – June 30	July 28
	July 1 – September 30	October 28
	October 1 – December 31	January 28
Semiannual	January 1 – June 30	July 28
	July 1 – December 31	January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge.

The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department at the address specified below:

Florida Department of Environmental Protection
 Wastewater Compliance Evaluation Section, Mail Station 3551
 Twin Towers Office Building
 2600 Blair Stone Road
 Tallahassee, Florida 32399-2400

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4. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Central District Office at the address specified below:

Central District Office
3319 Maguire Boulevard Suite 232
Orlando, Florida 32803-3767

Phone Number - (407) 894-7555
FAX Number - (407) 897-2966
All FAX copies shall be followed by original copies.

5. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
6. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.
7. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.
8. Bypasses subject to General Conditions VIII.20. and VIII.22. shall be monitored or estimated daily, or as approved by the Department for flow and other parameters required for the specific outfall which is bypassed. Monitoring results shall be reported to the Department
9. The Permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on December 21, 2000.
10. The Permittee shall develop a Plan of Study (POS), subject to Department review and approval, to monitor compliance with Rule 62-302.520(1), F.A.C. pursuant to the schedule in Item VI.4, including a proposed implementation schedule, designed to determine any effects on biological communities from the discharge to Indian River Lagoon. The plan shall address monitoring of aquatic species as necessary, and shall include reporting requirements. The POS shall incorporate relevant existing data developed by the Permittee and other sources as well as any necessary additional monitoring to be conducted by the Permittee.

II. Industrial Sludge Management Requirements

A. Basic Management Requirements

1. Disposal of sludge in a solid waste management facility permitted by the Department shall be in accordance with the requirements of Chapter 62-701, F.A.C. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in compliance with requirements of Chapter 62-730, F.A.C.
2. The permittee shall keep records of the amount of sludge or residuals disposed, transported, or incinerated. If a person other than the permittee is responsible for sludge transporting, disposal, or incineration, the permittee shall also keep the following records:
- name, address and telephone number of any transporter, and any manifests or bill of lading used;
 - name and location of the site of disposal, treatment or incineration;
 - name, address, and telephone number of the entity responsible for the disposal, treatment, or incineration site.

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III. Ground Water Monitoring Requirements

1. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the existing monitoring wells identified in Permit Condition III. 2. below, in accordance with this permit and the approved ground water monitoring plan prepared in accordance with Rule 62-522.600, F.A.C. Within 90 days of placing the new or modified wastewater facility into operation, or installation of new monitoring wells, whichever occurs sooner, the permittee shall begin sampling ground water at the new monitoring wells identified in Permit Condition III. 2 below in accordance with this permit and the approved ground water monitoring plan.
2. The following monitoring wells shall be sampled quarterly. Sampling must be reasonably spaced to be representative of potentially changing conditions:

Well ID	Well Name	Permit No.	Depth (ft)	Flow Rate (gpm)	Monitoring Type	Monitoring Purpose	Well Status
All Sites							
CA-MW-1	MWB-2683	3005A15832	2683	21	Surficial	Background	Existing
Equipment Area Runoff Basin (B-3)							
CA-MW-2	MWC-2682	3005A15833	2682	21	Surficial	Compliance	Existing
E/P Basin Spray Area (SP-1)							
OB-2	MWC-2686	3005A11264	2686	25.6	Surficial	Compliance	Existing
Solids Settling Basins (B-1A and B-1B)							
OB-3	MWC-2685	3005A11265	2685	24.9	Surficial	Compliance	Existing
Evaporation/Percolation Basin (EP-1)							
OB-5	MWC-26897	--	26897	18	Surficial	Compliance	Existing

MWB = Background; MWC = Compliance

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3. The following parameters shall be analyzed quarterly in each of the monitoring wells identified in Item III. 2. except Monitoring Well OB-5:

Parameter Name	Standard Compliance Well Limit	Units
Chloride	Report ^a	mg/L
pH	Report ^a	SU
Sodium	Report ^b	mg/L
Specific Conductance	Report	Umhos
Sulfate	Report ^a	mg/L
Total Dissolved Solids (TDS)	Report ^a	mg/L
Total Recoverable Petroleum Hydrocarbons	5.0	mg/L
Turbidity	Report	NTU
Vinyl Chloride	1	ug/L
Water Level Relative to NGVD	Report	Feet, NGVD

^a This facility has been in operation since 1977 and is an existing installation as defined in F.A.C. Rule 62-522.200(1) and is exempt from compliance with secondary standards for ground water at the edge of the zone of discharge in accordance with F.A.C. Rules 62-520.520 and 62-522.300(6).

^b The permittee is exempted from compliance with the Class G-II ground water standard for sodium in accordance with the Final Order Of Agency Action (sodium exemption) signed by the Secretary on October 12, 2004. This sodium exemption is effective for the duration of this permit.

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4. The following parameters shall be analyzed quarterly in Monitoring Well OB-5 identified in Item III. 2:

Parameter Name	Standard Compliance Well Limit	Units
Aluminum	Report ¹⁰	ug/L
Antimony (added 2/04)	6	ug/L
Beryllium (added 2/04)	4	ug/L
Cadmium	5	ug/L
Chloride	Report ¹⁰	mg/L
Chromium	100	ug/L
Copper	Report ¹⁰	ug/L
Cyanide	200	ug/L
Fluoride	4,000	ug/L
Iron	Report ¹⁰	ug/L
Manganese	Report ¹⁰	ug/L
Mercury	2.0	ug/L
Nickel	100	ug/L
pH	Report ¹⁰	SU
Silver	Report ¹⁰	ug/L
Sodium	Report ¹¹	mg/L
Specific Conductance	Report	mmhos
Sulfate	Report ¹⁰	mg/L
TDS	Report ¹⁰	mg/L
Tetrachloroethylene	3	ug/L
Total Phenols	Report	ug/L
Trichloroethylene	3	ug/L
Total Recoverable Petroleum Hydrocarbons	5.0	mg/L
Turbidity	Report	NTU
Vinyl chloride	1	ug/L
Zinc	Report ¹⁰	ug/L
Water Level (ft NGVD)	Report	Feet, NGVD

5. The zone of discharge extends to the facility property boundary, and vertically to the base of the shallow water table aquifer.
6. The permittee's discharge to ground water shall not cause a violation of water quality standards for ground waters at the boundary of the zone of discharge in accordance with Rules 62-520.400 and 62-520.420, F.A.C.
7. The permittee's discharge to ground water shall not cause a violation of the minimum criteria for ground water specified in Rule 62-520.400, F.A.C., within the zone of discharge.

¹⁰ This facility has been in operation since 1977 and is an existing installation as defined in F.A.C. Rule 62-522.200(1) and is exempt from compliance with secondary standards for ground water at the edge of the zone of discharge in accordance with F.A.C. Rules 62-520.520 and 62-522.300(6).

¹¹ The permittee is exempted from compliance with the Class G-II ground water standard for sodium in accordance with the Final Order Of Agency Action (sodium exemption) signed by the Secretary on October 12, 2004. This sodium exemption is effective for the duration of this permit.

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8. If the concentration for any constituent listed in Permit Condition III.3 in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative natural background quality shall be the prevailing standard.
9. Water levels shall be recorded prior to evacuating the well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.1 feet.
10. Ground water monitoring wells shall be purged prior to sampling to obtain a representative sample.
11. Analyses shall be conducted on un-filtered samples, unless filtered samples have been approved by the Department as being more representative of ground water conditions.
12. If a monitoring well becomes damaged or cannot be sampled for some reason, the permittee shall notify the Department immediately and a written report shall follow within seven days detailing the circumstances and remedial measures taken or proposed. Repair or replacement of monitoring wells shall be approved in advance by the Department.
13. The permittee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater or sludge. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.
14. Ground water monitoring test results shall be submitted on Part D of DEP Form 62-620.910(10) (attached) and shall be submitted to the Central District Ground Water Section. A completed Certification Page shall accompany each quarter of monitoring data. The quarterly ground water monitoring results shall be submitted with the DMR as shown in the following schedule:

SAMPLE PERIOD	REPORT DUE DATE
January - March	April 28
April - June	July 28
July - September	October 28
October - December	January 28

IV. Other Land Application Requirements

1. This section is not applicable to this facility.

V. Operation and Maintenance Requirements

A. Operation of Treatment and Disposal Facilities

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.
2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

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B. Record keeping Requirements:

1. The permittee shall maintain the following records on the site of the permitted facility and make them available for inspection:
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;
 - c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;
 - d. A copy of the current permit;
 - e. A copy of any required record drawings;
 - f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. A Best Management Practices Pollution Prevention (BMP3) Plan shall be prepared and implemented in accordance with Part VII of this permit and the following schedule:

	Action Item	Scheduled Completion Date
1	Continue Implementing Existing BMP3 Plan	Issuance Date of Permit

2. The permittee shall achieve compliance with the other conditions of this permit as follows:
 - a. Operational level attained Issuance Date of Permit
3. The following construction schedule shall be followed:
 - a. Relocate Outfall D-030 to I-016 6 months of Issuance Date of Permit
 - b. Submit Certificate of Completion of Construction (See VII.B.1) 30 days of Completion of Construction
 - c. Submit Record Drawings (See VII.B.2).....6 months after Completion of Construction
4. Biological Monitoring Program:
 - a. Within six months of issuance of this permit, the Permittee shall meet with the Department to discuss the content of a Plan of Study (POS) for biological monitoring in accordance with the requirements of Item

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I.E.10, and shall submit the POS within twelve months of issuance of this permit. The Department will review the POS and provide written comments to the permittee as needed. The permittee shall implement the POS in accordance with the approved implementation schedule.

5. Additional Intake/Discharge Sampling and Reporting

- a. Within 60 days of permit issuance the permittee shall begin additional sampling to be conducted quarterly for a total of 4 sampling events. Concurrent 24-hour composite samples shall be taken of the intake and from Outfalls D-011, D-012, and D-015 (Sample Points EFF-1, EFF-2, and EFF-3) and analyzed for Copper, Nickel, and Beryllium.
 - b. Sampling results shall be submitted to the Department with the next scheduled quarterly report and include results from the sampling events since the last submittal except results submitted for the fourth quarterly report shall include summary results from all 4 sampling events.
 - c. Analytical test methods, method detection limits (MDLs), and practical quantification limits (PQLs) shall be in accordance with the requirements of Section I.E.1 of this permit.
 - d. If the sampling results indicate a reasonable potential for an exceedance of water quality standards and concentrations in the discharge exceed intake concentrations, taking into account sampling and analytical variations, then the Department may reopen the permit in accordance with Section VII.F.2 of this permit to include different limitations or monitoring requirements or take other action as appropriate.
6. The Permittee shall comply with the requirements of 40 CFR Part 125.95(a)(1) and (2) no later than upon submittal of a timely application for permit renewal, submitted pursuant to the requirements of Condition VII.C. of this permit.
7. No later than 14 calendar days following a date identified in the above schedule(s) of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by an identified date, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the Northwest District Office, are made a part hereof.
2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.
3. This permit satisfies Industrial Wastewater program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.

B. Specific Conditions Related to Construction

1. Within thirty days of completion of construction, the permittee shall submit to the Department a completed "Certificate of Completion of Construction" (DEP Form 62-620.910(12) signed and sealed by the engineer of record or other engineer registered in the State of Florida.
2. Record drawings shall be prepared and made available in accordance with Rule 62-620.410(6), F.A.C, and the Department of Environmental Protection Guide to wastewater Permitting within six months of placing the facility into operation.

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C. Duty to Reapply

1. The permittee shall submit an application to renew this permit at least 180 days before the expiration date of this permit.
2. The permittee shall apply for renewal of this permit on the appropriate form listed in Rule 62-620.910, F.A.C., and in the manner established in Chapter 62-620, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.
3. An application filed in accordance with subsections 1. and 2. of this part shall be considered timely and sufficient. When an application for renewal of a permit is timely and sufficient, the existing permit shall not expire until the Department has taken final action on the application for renewal or until the last day for seeking judicial review of the agency order or a later date fixed by order of the reviewing court.
4. The late submittal of a renewal application shall be considered timely and sufficient for the purpose of extending the effectiveness of the expiring permit only if it is submitted and made complete before the expiration date.

D. Specific Conditions Related to Best Management Practices/Pollution Prevention Conditions

1. General Conditions

In accordance with Section 304(e) and 402(a)(2) of the Clean Water Act (CWA) as amended, 33 U.S.C. §§ 1251 et seq., and the Pollution Prevention Act of 1990, 42 U.S.C. §§ 13101-13109, the permittee must develop and implement a plan for utilizing practices incorporating pollution prevention measures. References to be considered in developing the plan are "Criteria and Standards for Best Management Practices Authorized Under Section 304(e) of the Act," found at 40 CFR 122.44 Subpart K and the Waste Minimization Opportunity Assessment Manual, EPA/625/7-88/003.

a. Definitions

- (1) The term "pollutants" refers to conventional, non-conventional and toxic pollutants.
- (2) Conventional pollutants are: biochemical oxygen demand (BOD), suspended solids, pH, fecal coliform bacteria and oil & grease.
- (3) Non-conventional pollutants are those which are not defined as conventional or toxic.
- (4) Toxic pollutants include, but are not limited to: (a) any toxic substance listed in Section 307(a)(1) of the CWA, any hazardous substance listed in Section 311 of the CWA, or chemical listed in Section 313(c) of the Superfund Amendments and Reauthorization Act of 1986; and (b) any substance (that is not also a conventional or non-conventional pollutant except ammonia) for which EPA has published an acute or chronic toxicity criterion.
- (5) "Pollution prevention" and "waste minimization" refer to the first two categories of EPA's preferred hazardous waste management strategy: first, source reduction and then, recycling.
- (6) "Recycle/Reuse" is defined as the minimization of waste generation by recovering and reprocessing usable products that might otherwise become waste; or the reuse or reprocessing of usable waste products in place of the original stock, or for other purposes such as material recovery, material regeneration or energy production.

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- (7) "Source reduction" means any practice which: (a) reduces the amount of any pollutant entering a waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and (b) reduces the hazards to public health and the environment associated with the release of such pollutant. The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control. It does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a pollutant through a process or activity which itself is not integral to, or previously considered necessary for, the production of a product or the providing of a service.
- (8) "BMP3" means a Best Management Plan incorporating the requirements of 40 CFR § 122.44, Subpart K, plus pollution prevention techniques associated with a Waste Minimization Assessment.
- (9) "Waste Minimization Assessment" means a systematic planned procedure with the objective of identifying ways to reduce or eliminate waste.

2. Best Management Practices/Pollution Prevention Plan

The permittee shall develop and implement a BMP3 plan for the facility which is the source of wastewater and storm water discharges covered by this permit. The plan shall be directed toward reducing those pollutants of concern which discharge to surface waters and shall be prepared in accordance with good engineering and good housekeeping practices. For the purposes of this permit, pollutants of concern shall be limited to toxic pollutants, as defined above, known to the discharger. The plan shall address all activities which could or do contribute these pollutants to the surface water discharge, including process, treatment, and ancillary activities. The BMP3 plan shall contain the following components:

a. Signatory Authority & Management Responsibilities

The BMP3 plan shall be signed by the permittee or their duly authorized representative in accordance with rule 62-620.305(2)(a) and (b). The BMP3 plan shall be reviewed by the plant environmental/engineering staff and plant manager. Where required by Chapter 471 (P.B.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the BMP3 plan shall be signed and sealed by the professional(s) who prepared them.

A copy of the plan shall be retained at the facility and shall be made available to the Department upon request.

The BMP3 plan shall contain a written statement from corporate or plant management indicating management's commitment to the goals of the BMP3 program. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the BMP3 plan.

b. BMP3 Plan Requirements

- (1) Name & description of facility, a map illustrating the location of the facility & adjacent receiving waters, and other maps, plot plans or drawings, as necessary;
- (2) Overall objectives (both short-term and long-term) and scope of the plan, specific reduction goals for pollutants, anticipated dates of achievement of reduction, and a description of means for achieving each reduction goal;

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(3) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;

(4) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and

c. Waste Minimization Assessment

The permittee is encouraged but not required to conduct a waste minimization assessment (WMA) for this facility to determine actions that could be taken to reduce waste loadings and chemical losses to all wastewater and/or storm water streams as described in Part V.II.D.3 of this permit.

If the Permittee elects to develop and implement a WMA, information on plan components can be obtained from the Department's Industrial Wastewater website, or from:

Florida Department of Environmental Protection
Industrial Wastewater Section, Mail Station 3545
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

(850) 245-8589
(850) 245-8669 -- Fax

d. Best Management Practices & Pollution Prevention Committee Recommended:

A Best Management Practices Committee (Committee) should be established to direct or assist in the implementation of the BMP3 plan. The Committee should be comprised of individuals within the plant organization who are responsible for developing the BMP3 plan and assisting the plant manager in its implementation, monitoring of success, and revision. The activities and responsibilities of the Committee should address all aspects of the facility's BMP3 plan. The scope of responsibilities of the Committee should be described in the plan.

e. Employee Training

Employee training programs shall inform personnel at all levels of responsibility of the components & goals of the BMP3 plan and shall describe employee responsibilities for implementing the plan. Training shall address topics such as good housekeeping, materials management, record keeping & reporting, spill prevention & response, as well as specific waste reduction practices to be employed. Training shall also disclose how individual employees may contribute suggestions concerning the BMP3 plan or suggestions regarding Pollution Prevention. The plan shall identify periodic dates for such training.

f. Plan Development & Implementation

The BMP3 plan shall be implemented upon the effective date of this permit, unless any later dates are specified in this permit. If a WMA is ongoing at the time of development or implementation it may be described in the plan. Any waste reduction practice which is recommended for implementation over a period of time may also be identified in the plan, including a schedule for its implementation.

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g. Submission of Plan Summary & Progress/Update Reports

- (1) **Plan Summary:** Not later than 2 years after the effective date of the permit, a summary of the BMP3 plan shall be developed and maintained at the facility and made available to the Department upon request. The summary shall include the following: a brief description of the plan, its implementation process, schedules for implementing identified waste reduction practices, and a list of all waste reduction practices being employed at the facility. The results of WMA studies, as well as scheduled WMA activities may be discussed.
- (2) **Progress/Update Reports:** Annually thereafter for the duration of the permit progress/update reports documenting implementation of the plan shall be maintained at the facility and made available to the Department upon request. The reports shall discuss whether or not implementation schedules were met and revise any schedules, as necessary. The plan shall also be updated as necessary and the attainment or progress made toward specific pollutant reduction targets documented. Results of any ongoing WMA studies as well as any additional schedules for implementation of waste reduction practices may be included.
- (3) A recommended timetable for the various plan requirements follows:

Timetable for BMP3 Plan:

<u>ELEMENT</u>	<u>TIME FROM EFFECTIVE DATE OF THIS PERMIT</u>
Complete WMA (if appropriate)	6 months
Progress/Update Reports	3 years, and then annually thereafter

The permittee shall maintain the plan and subsequent reports at the facility and shall make the plan available to the Department upon request.

h. Plan Review & Modification

If following review by the Department, the BMP3 plan is determined insufficient, the permittee will be notified that the BMP3 plan does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

The permittee shall modify the BMP3 plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the State or if the plan proves to be ineffective in achieving the general objectives of reducing pollutants in wastewater or storm water discharges. Modifications to the plan may be reviewed by the Department in the same manner as described above.

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E. Specific Conditions Related to Existing Manufacturing, Commercial, Mining, and Silviculture Wastewater Facilities or Activities

1. Existing manufacturing, commercial, mining, and silvicultural wastewater facilities or activities that discharge into surface waters shall notify the Department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
 - (1) One hundred micrograms per liter,
 - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony, or
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application.
 - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
 - (1) Five hundred micrograms per liter,
 - (2) One milligram per liter for antimony, or
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application.

F. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;
 - b. Controls any pollutant not addressed in the permit.The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.
2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.
3. The Department may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1), F.A.C.]

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2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. [62-620.610(2), F.A.C.]
3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3), F.A.C.]
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4), F.A.C.]
5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5), F.A.C.]
6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6), F.A.C.]
7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7), F.A.C.]
8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [62-620.610(8), F.A.C.]
9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
 - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
 - b. Have access to and copy any records that shall be kept under the conditions of this permit;
 - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
 - d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.[62-620.610(9), F.A.C.]
10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the

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Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10), F.A.C.]

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. [62-620.610(11), F.A.C.]
12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. [62-620.610(12), F.A.C.]
13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. [62-620.610(13), F.A.C.]
14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer. [62-620.610(14), F.A.C.]
15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. [62-620.610(15), F.A.C.]
16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. [62-620.610(16), F.A.C.]
17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
 - a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance.[62-620.610(17), F.A.C.]
18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
 - a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).

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- b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
 - d. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300(4), F.A.C. The laboratory must be certified for any specific method and analyte combination that is used to comply with this permit. For domestic wastewater facilities, the on-site test procedures specified in Rule 62-160.300(4), F.A.C., shall be performed by a laboratory certified test for those parameters or under the direction of an operator certified under Chapter 62-602, F.A.C.
 - e. Fields activities including on-site tests and sample collection, whether performed by a laboratory or a certified operator, must follow the applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used where they have been approved according to the requirements of Rules 62-160.220, 62-160.330, and 62-160.600, F.A.C.
[62-620.610(18), F.A.C.]
19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*
20. The permittee shall report to the Department's Central District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- a. The following shall be included as information which must be reported within 24 hours under this condition:
 - (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
 - (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
 - (4) Any unauthorized discharge to surface or ground waters.
 - b. Oral reports as required by this subsection shall be provided as follows:
 - (1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.4 that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
 - (a) Name, address, and telephone number of person reporting;
 - (b) Name, address, and telephone number of permittee or responsible person for the discharge;
 - (c) Date and time of the discharge and status of discharge (ongoing or ceased);
 - (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
 - (e) Estimated amount of the discharge;
 - (f) Location or address of the discharge;
 - (g) Source and cause of the discharge;
 - (h) Whether the discharge was contained on-site, and cleanup actions taken to date;

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- (i) Description of area affected by the discharge, including name of water body affected, if any; and
 - (j) Other persons or agencies contacted.
 - (2) Oral reports, not otherwise required to be provided pursuant to subparagraph b(1) above, shall be provided to Department's Central District Office within 24 hours from the time the permittee becomes aware of the circumstances.
 - c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Central District Office shall waive the written report.
[62-620.610(20), F.A.C.]
21. The permittee shall report all instances of noncompliance not reported under Conditions VIII. 18 and 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII. 20. of this permit. *[62-620.610(21), F.A.C.]*
22. Bypass Provisions.
- a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.
 - b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
 - c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a. (1) through (3) of this permit.
 - d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit.
[62-620.610(22), F.A.C.]
23. Upset Provisions
- a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.
 - b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
 - c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.
[62-620.610(23), F.A.C.]

PERMITTEE:

FP&L Cape Canaveral Plant
6000 North U.S. Highway 1
Cocoa, FL 32927

PERMIT NUMBER: FL0001473

Issuance date: August 10, 2005
Expiration date: August 9, 2010

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Mimi A. Drew
Director, Division of Water Resource Management

2600 Elair Stone Road
Tallahassee, FL 32399-2400
(850) 245-8336



Jeb Bush
 Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

In the matter of:
Approval of FPL Cape Canaveral Power Plant
Manatee Protection Plan:

DEP Permit No. FL0001473
Brevard County

Mr. Ron Hix
FPL-SBS/TB
Florida Power & Light Company (FPL)
P. O. Box 14000
Juno Beach, FL 33408

NOTICE OF AGENCY ACTION

The Department of Environmental Protection hereby gives notice of its approval of the enclosed Manatee Protection Plan for the FPL Cape Canaveral Plant, dated August 8, 2000. The Manatee Protection Plan was completed pursuant to Specific Condition 13 of the above referenced permit.

A person whose substantial interests are affected by the Department action may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes.

The petition must contain the information set forth below and must be filed (received) in the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any other person must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the Department case identification number and the county in which the subject matter or activity is located;
"More Protection, Less Process"

Florida Power & Light Company
Cape Canaveral - Manatee Protection Plan

Page 2 of 3

- (b) A statement of how and when each petitioner received notice of the Department action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
- (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department final action may be different from the position taken by it in this order. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Mimi Drew
Director
Division of Water Resource Management

2600 Blair Stone Road
Tallahassee, FL 32399-2400
(850) 487-1855

Florida Power & Light Company
Cape Canaveral - Manatee Protection Plan

Page 3 of 3

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF AGENCY ACTION and all copies were mailed before the close of business on 12-21-00 to the listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

S. Shields 12-21-00
(Clerk) (Date)

Copies furnished to:

Kipp Frohlich, FWC Tallahassee
Chairman, Board of Brevard County Commissioners
Jim Valade, U.S. Fish and Wildlife Service
Save the Manatee Club
Christianne Ferraro, DEP Orlando
Betsy Hewitt, DEP Office of General Counsel

**Florida Power & Light - Cape Canaveral Plant
Manatee Protection Plan
(August 8, 2000)**

Purpose:

The purpose of the Cape Canaveral Plant Manatee Protection Plan is to set forth Florida Power & Light Company's (FPL) procedures to comply with Specific Condition 13 of the facility's State Industrial Wastewater Permit Number FL0001473 that was issued on February 24, 1999. This Specific Condition reads, in part:

13. The permittee, in so far as required to comply with Tasks 25 and 251 of the U.S. Fish and Wildlife Service (USFWS) "Florida Manatee Recovery Plan," shall develop a plan and procedures addressing potential manatee impacts, ... All plans, if required, shall include an implementation schedule and address, at a minimum:
 - (a) Plans to minimize disruption to warm-water outflows during the winter and response procedures in case of disruptions.
 - (b) Strategy to maintain discharge temperatures that will sustain manatees during cold events.
 - (c) Plan to monitor ambient and discharge temperatures.
 - (d) Precautions to minimize hazards to manatees at intake and outfall areas.
 - (e) Timely communication to manatee recovery program personnel of any long term changes in the availability of warm water.

Compliance with Specific Condition 13:

- I. This Manatee Protection Plan will be in effect during the term of the permit. In order for the plant's warm water discharge to provide a safe, warm water refuge for the manatees and to comply with Specific Condition 13, FPL will take the following actions:
 - a) In the case of an unplanned shutdown or a plant failure occurring that will affect the warm water refuge from November 15 through March 31, when the ambient water temperature is below 61°F., the Florida Fish and Wildlife Conservation Commission (FWCC) and USFWS will be notified no later than four (4) hours after the event has occurred. If an unplanned shutdown occurs that is expected to result in no thermal discharge for 24 hours or longer, regardless of ambient water temperature, the Florida Marine Research Institute should be notified.

The following agency representatives shall be notified in the above referenced event or if any distressed manatees are observed at any time:

2904 FWCC - Florida Marine Research Institute - Marine Mammal Pathobiology Lab: (727)-893-
USFWS - Jacksonville Field Office: (904) 232-2580

The FWCC, Bureau of Protected Species Management (BPSM) shall be provided a schedule of any anticipated in-water work within the discharge area or work that will affect the warm water refuge during the period of November 15 through March 31 each year. No routine in-water maintenance work shall occur in the discharge area from November 15 through March 31, unless it is considered essential by FPL and approved by BPSM prior to the start of work. If emergency in-water work is needed, the BPSM will be notified and consulted no later than two weeks following the commencement of the activity. All vessels used in the operation or associated with the activity shall be operated pursuant to the attached standard manatee construction conditions.

- b) From November 15 through March 31 each year, to coincide with the time of greatest manatee abundance, if the ambient water temperature falls below 61°F., as measured at the plant intake, the FPL Cape Canaveral plant shall endeavor to operate in a manner that maintains the water temperature in an adequate portion of the discharge area, for at least one unit, at or above 68°F., until such time as the intake water temperature reaches 61°F., unless otherwise authorized by BPSM and the USFWS, or unless safety or reliability of the plant would be compromised.
- c) The FPL Cape Canaveral power plant will provide personnel from the BPSM, USFWS, Florida Marine Research Institute, USGS-Sirenia Project, or a designee of these agencies, access to the FPL Cape Canaveral power plant property to conduct manatee research or monitoring activities which may include, placing, maintaining and downloading data from temperature data loggers. (These temperature data loggers will be used to collect air and water temperature data in an ongoing research effort to better understand manatee behavior patterns in response to artificial warm water refugia and environmental variables. The temperature data loggers will be placed in the discharge area and at ambient water and air locations). Access would be limited to normal business hours (8:00am - 5:00pm) unless arrangements are made in advance with the FPL Cape Canaveral power plant.
- d) Intake Area: No special surveys will be required for the intake area.
Discharge Area: No special surveys will be required for the discharge area.
- e) Should FPL decide to retire these units, notice will be provided to FWCC and USFWS as soon as practical after a definite decision is made or, if possible, at least five years prior to the date of retirement.
- f) To assist in documenting long-term use patterns of this facility, FPL should conduct periodic aerial surveys of manatees at the Cape Canaveral facility. The continuation of the ongoing statewide aerial survey that FPL has funded in the past years meets these criteria.

g) The FPL Cape Canaveral Power Plant will provide phone numbers for weekday and weekend notification of appropriate plant personnel for the purpose of allowing FWCC or USFWS to coordinate manatee rescue operations as necessary.

2.) FPL actions, pursuant to this plan, that are conducted on a one-time basis unless there are significant physical or operational changes to the FPL Cape Canaveral power plant.

a) Provide a site map of the facility as a part of the plan that includes the following information:

1. The location of the intake pipes and discharge pipes.
2. Proximate streams, rivers, bays, etc.
3. The location of the condenser inlet and outlet temperature monitoring devices.
4. The location of any fuel barge docking facilities in relation to the discharge area.
5. The delineation of the no-entry boundary at the discharge area.

b) In order to evaluate and determine what portions of the thermal discharge will provide a sufficient warm water refuge for manatees under potential cold stress water conditions; the FPL Cape Canaveral power plant will, within two (2) years of the effective date of this plan, provide a profile of the thermal gradient (either actual or calculated) of the discharge area waters, as well as its gross bathymetry, at the mean rate of discharge when the ambient water temperature reaches a seasonal low.

Note: The "Thermal Analysis" conducted by FPL in January, 1996 and submitted to the FWCC meets the first requirement above ("... provide a profile of the thermal gradient (either actual or calculated) of the discharge area waters...").

**FLORIDA POWER & LIGHT - CAPE CANAVERAL POWER PLANT
MANATEE PROTECTION PLAN**

**1a) STANDARD MANATEE CONSTRUCTION CONDITIONS FOR ARTIFICIAL
WARM WATER REFUGIA DURING THE PERIOD OF NOVEMBER 15
THROUGH MARCH 31.**

The permittee shall comply with the following manatee protection conditions:

- a. The permittee shall instruct all personnel associated with in-water work within the discharge canal and/or the warm water refuge of the potential presence of manatees and the need to avoid collisions with manatees. All vessels used in the operation or in association with the in-water work shall have an observer on board responsible for identifying the presence and location of manatee(s).
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.
- c. All vessels associated with in-water work associated with the discharge canal and/or warm water refuge shall operate at "no wake/idle" speeds at all times while in the manatee warm water refuge area. All vessels will follow routes of deep water whenever possible.
- d. If manatee(s) are seen within the discharge canal and/or warm water refuge area all appropriate precautions shall be implemented to ensure protection of the manatee(s). These precautions shall include the immediate shutdown of equipment if necessary. Activities will not resume until the manatee(s) has departed to a safe distance on its own volition.
- e. Any collision with and/or injury to a manatee shall be reported immediately to the Florida Wildlife Conservation Commission at 1-888-404-FWCC (1-888-404-3922). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580).



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

June 24, 2008

Randall LaBauve, Director
Environmental Services
Florida Power and Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

Dear Mr LaBauve:

The U. S. Fish and Wildlife Service (Service) appreciates Florida Power and Light Company's (FP&L) efforts to notify us, the Florida Fish and Wildlife Conservation Commission (FWC), and others about plans to repower the Canaveral and Riviera Beach power plants and company concerns regarding manatees known to use these sites.

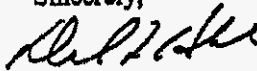
Repowering efforts will involve closing the plants for extended periods of time during demolition and construction activities, a process that will ultimately extend the plant's operational lifespan, as well as the associated warm water discharges. The shutdowns will include temporarily eliminating the warm water discharges from each site during the winter when they are typically used by hundreds of manatees.

At present, there are no authorizations in place under either the Marine Mammal Protection Act of 1972 or the Endangered Species Act of 1973 for the incidental take of manatees and their critical habitat. Wintering habitat is the most important biological factor limiting manatee populations and is integral to the recovery of the species. Therefore, it is critical that you minimize impacts and take steps to avoid the loss of any manatees during your transition process, as well as insure that there is no loss of manatee wintering habitat in both the near and long term.

For planning purposes, we recommend that your plan designs include identifying baseline information about the extent of warm water habitat currently used by manatees at both plants. This could include measuring the areas of warm water habitat, discharge temperatures, discharge volumes, and other parameters. The same or similar quantities of habitat will need to be provided at or in close enough proximity to these sites, such that manatees are able to find and use it with minimal disruption. In addition, any locations should include protections from human disturbance, similar to those which are currently in place. Finally, contingency plans currently under development by FWC, the Service, FP&L and others, should be completed and operational during the transition in the event that manatees do not respond as expected.

FP&L is a valued partner in the conservation and recovery of the manatee and we are confident that you will make every effort to provide for manatees as you move ahead. We look forward to working with you on this important issue, and would appreciate an opportunity to meet with you to discuss this further. Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,



Dave Hankla
Field Supervisor

CC: Sam Hamilton, Regional Director, Atlanta, Georgia
Ken Haddad, Director, Florida Fish and Wildlife Conservation Commission,
Tallahassee, Fl

**FWC STAFF REPORT FOR FLORIDA POWER AND LIGHT COMPANY –
CAPE CANAVERAL ENERGY CENTER (CCEC)**

Prepared by Jennifer Goff and Ron Mezich, Fish and Wildlife Biologists, July 6, 2009

This report summarizes the fish and wildlife resources that could be affected by changes to the existing power plant. It includes general recommendations for addressing these issues during the development. If you have any questions regarding the information in this report, please do not hesitate to contact Jennifer Goff at phone (561) 625-5122, or email at Jennifer.Goff@myfwc.com, or Ron Mezich at phone (850) 922-4330 or email at Ron.Mezich@myfwc.com.

PROJECT DESCRIPTION

The existing Florida Power and Light (FPL) Cape Canaveral Plan consists of two nominal 400-megawatt unit conventional dual-fuel fired steam boilers that will be converted into a "modern, highly efficient, lower-emission next-generation energy center" (p. 1-1 of volume 1 of the application submittal). The project will use existing plant site boundaries, cooling water intake and discharge infrastructure, and transmission right-of-way. Construction parking and laydown will be staged on FPL-owned land adjacent to the existing Cape Canaveral Plant. The existing FPL Cape Canaveral Plant property is located on approximately 43 acres of flat, sandy area between Cocoa and Titusville in Brevard County, Florida. The site is bounded on the east by the Indian River Lagoon (Intercoastal Waterway) and on the west by U.S. Highway 1 in a portion of Section 19, Township 23, and Range 36. In addition, FPL maintains a sovereignty submerge lands lease from Florida Department of Environmental Protection (DEP) that is identified as tax Parcel Identification number 23-36-19-00-00750.0-0000.0.

The proposal utilizes the existing plant site boundaries, cooling water intake and discharge infrastructure, and transmission right-of-way. Construction parking and laydown would be staged on FPL-owned land adjacent to the existing Cape Canaveral Plant. While there would be no permanent changes in the actual footprint of the facility, this proposal requires the addition of an offsite construction laydown and parking area, and a minor upgrade to existing transmission lines/switchyard/substation to connect Cape Canaveral Energy Center (CCEC) to the FPL transmission system. Temporary changes to the thermal discharge would occur during the conversion, while the conversion would yield a permanent reduction in the CCEC's thermal discharge. The interim discharges would be to the existing intake canal located approximately 500 feet south of the current warm-water discharge area. After the conversion, the CCEC's expected thermal discharge would be approximately 25% less than at present.

POTENTIALLY AFFECTED RESOURCES

Terrestrial wildlife

This CCEC proposal does not require any permanent increase of the footprints of the associated facilities, but does propose to clear approximately 41 acres for offsite

construction laydown and parking area. The proposed location for these activities contains flat, sandy soils and large areas of upland scrub, pine, and hardwood hammock habitat. There are several species on the State's threatened list that occur in this area including the gopher tortoise, Florida scrub-jay, eastern indigo snake, and Florida beach mouse and these conditions help address our concerns in regards to those species.

West Indian manatee

The manatee is listed by both the State and the USFWS as Endangered, and its use of the area surrounding the CCEC is well documented by aerial survey, mortality, and satellite telemetry data. The project site is characterized as a primary warm-water manatee refuge site due to the presence of a warm-water effluent from power plant operations. Between January 1974 and December 2008, 36 manatees have died from watercraft-related causes within a five-mile radius of the project location. In addition to the watercraft-related deaths, there have also been eight human-other, 26 perinatal, 26 cold-stress, 45 natural (other), and 68 undetermined manatee deaths within the same radius.

Historically speaking, the majority of manatees on the east coast of Florida are believed to have been limited in their distribution during cold winters to the warmer sub-tropical waters south of the Sebastian River (Moore 1951). Because of their limited ability to conserve heat, manatees cannot survive exposure to water temperatures below approximately 68° F (20°C) for extended periods of time (Marine Mammal Commission 1988). In north and central Florida, water temperatures in winter periodically drop below 68° F. During these periods, manatees seek out warm-water sources. The power plants and other industries that discharge large volumes of warm water into Florida's coastal bays and estuaries provide manatees with warm-water refugia (Campbell and Irvine 1981, O'Shea et al. 1985). Since the introduction of these warm-water sources, more manatees have used Brevard County waters during the winter months.

With the presence of a warm-water refuge, ample forage, and protected areas in the north Banana River, Brevard County hosts a significant year-round manatee population. Spring and winter aggregations are the largest documented in the State. Spring aggregations in the north Banana River alone have exceeded 365 manatees (Jane Provanca, personal communication), while winter surveys at thermal discharges from the two power plants in Brevard County have documented a high count of 588 manatees during a single flight (Reynolds 2004).

The conversion of the CCEC would result in the temporary discontinuation of the existing thermal discharge and manatee warm-water refuge; however, the construction of an interim heating system would allow for continuation of a warm-water refuge for manatees near the CCEC. The temporary discontinuation of the existing thermal discharge and the relocation of the warm-water refuge to a nearby location will modify manatee warm-water habitat and require manatees to adapt to this change.

Due to the dependence of numerous manatees on the warm-water habitat provided by the CCEC, permit conditions addressing the interim heating system, the temporary warm-water refuge, and the return to the historic site after reconstruction are being

recommended. In addition, FWC is also recommending that FPL provide for monitoring of environmental and biological indicators that will play a substantial role in determining the status of the interim heating system during the conversion. These monitoring conditions will assist FWC's efforts to monitor the health status of manatees and provide an early warning system for cold stress complications and contingency planning to help mitigate the potential loss of significant numbers of manatees if there is a failure in the interim warm-water heating system.

Conclusion - Manatees

Florida manatees have used the Cape Canaveral plant's thermal discharge during the winter months for decades. The thermal discharge from this plant has been consistent and reliable, thereby allowing manatees to become dependent on it. At the time the Manatee Power Plant Protection Plan (MPPPP) was developed for this plant, the FWC, USFWS, and FPL agreed upon a 61°F ambient water trigger temperature based on a negotiation of several factors. This trigger temperature requires the plant to operate at least one unit to create a warm-water refuge for manatees during the winter months when ambient water temperatures reach the trigger temperature. The ambient water temperature that was selected was based on several criteria: 1) Base Load Operation, with the Cape Canaveral Plant operating as a base load unit (running consistently and creating a dependable warm-water refuge), 2) economics (potential costs to FPL) and 3) manatee biology (how often and how long would manatees be subjected to temperatures between 68°F and 61°F). Two of these three factors have recently changed and will change even further during the conversion process. The warm water discharge at the Cape Canaveral Plant has been less consistent, and the interim refuge may be even less dependable for manatees if operated at a 61° F trigger temperature. The reduced dependability of the warm-water refuge may increase the frequency of exposure of manatees to cold water and escalate the risk of cold stress disease and death since the proposed interim heating system has not been implemented previously.

The USFWS advised the licensee in August 2008 that take of manatees is not authorized during the proposed plant conversion at the CCEC (See Attachment A). As a result FWC has attempted to develop appropriate measures and conditions to prevent take of manatees during reconstruction of the plant, which includes the interim refuge. We have worked as closely as possible with the licensee to develop these conditions.

RECOMMENDATIONS

We recommend the following Conditions of Certification:

Terrestrial Wildlife

1. All undeveloped habitat onsite shall be surveyed for the presence of state- and federally listed species no more than six months before land clearing and the results shall be reported to the FWC. We recommend that the report includes methodology, results, discussion, and references to all survey protocols and documents used. If there is evidence that any state-listed species are present, then the licensee must report the findings to the FWC. If impacts to those species cannot be avoided, then the licensee must contact the FWC before taking any action that might result in an impact to those species.
2. Gopher tortoises found onsite shall be relocated in accordance with the state Gopher Tortoise Management Plan. Pursuant to the requirements of Rules 68A-25.002 and 68A-27.004, Florida Administrative Code, a permit for a gopher tortoise capture/relocation/release activity must be secured from the FWC before beginning any relocation work. Such permits will be issued pursuant to any and all applications which sufficiently accommodate these guidelines. Application forms to be used are available from the Permit Coordinator, Species Conservation Planning Section, Florida Fish and Wildlife Conservation Commission, 620 S. Meridian St., Mail Station 2A, Tallahassee, FL 32399-1600, (850)410-0656, ext. 17327/ (850)488-5297 fax or from the FWC's web site at <http://myfwc.com/permits/Protected-Wildlife/>. Complete applications should be submitted to the Gopher Tortoise Permit Coordinator at the above address at least 45 days before the time needed.
3. Before clearing, FPL shall coordinate with the USFWS and the FWC regarding appropriate measures to address impacts to scrub-jay habitat.

[Article IV, Sec. 9, Fla. Const.; Chapter 68A-27, F.A.C.]

West Indian Manatee

Interim Warm-Water Refuge Heating System

4. The current trigger temperature identified in the Manatee Protection Plan under the Cape Canaveral power plant's National Pollutant Discharge Elimination System permit is 61°F. In order to prevent an increased risk of manatee cold stress death during the CCEC conversion construction period, adaptive management protocols for the interim warm-water refuge heating system shall include the following:
 - a. Testing, monitoring, and evaluation of the interim heating system shall take place pursuant to the permit conditions found in the Environmental Monitoring and Biological sections.

- b. The trigger temperature shall be set at 65°F, during the period that the interim heating system is required. The interim heating system shall be designed such that when ambient water temperatures are below 65°F, as indicated from a selected ambient water temperature station (as agreed to in the environmental monitoring plan), the interim heating system will provide a water temperature at or above 68°F, within the identified warm-water refuge until such time as the ambient water temperature reaches 65°F. The interim heating system shall be maintained and operated to achieve this result, in accordance with best management practices (BMP) established by Licensee, unless otherwise authorized by FWC and USFWS, or unless the safety or reliability of the electric power system would be compromised. Licensee shall develop a BMP manual for the interim heating system that shall include the following components:
- i. operation and maintenance procedures for the interim heating system;
 - ii. requirement for a log demonstrating that the recommended operating and maintenance procedures and checks are performed;
 - iii. a spare parts list including the location of the spares;
 - iv. a list of qualified operators and repair persons and their contact information;
 - iv. a trouble shooting flowchart and repair personnel call out plan;
 - v. an incident log to track the status of troubleshooting and repair activities until the system is operable;
 - vi. notification requirements to agencies.

Licensee shall submit its BMP manual to FWC for review and comment by August 15, 2010. Licensee will review, consider, and incorporate if practicable, comments from FWC that are received by September 15, 2010. A copy of the Licensee's BMP manual for the interim heating system shall be maintained at all times at the CCEC site and shall be made available upon request to authorized representatives of FWC and DEP.

- c. If through the biological monitoring or daily visual assessments of manatee health, or scientific data it is indicated, that the 65°F interim heating system trigger temperature should be; raised or lowered to maintain a sufficient warm-water refuge, then DEP will meet with FWC, USFWS, and FPL to assess the information and develop a new strategy that can be agreed upon by all four parties. Such a new agreed upon strategy would be proposed in a DEP initiated modification to certification, in consultation with FWC, USFWS and FPL.
- d. The interim warm-water refuge is described as the area located within the current Cape Canaveral plant intake canal beginning at the western most extent of the canal and including all waters within the canal between the peninsula and the southern shoreline up to the southern shoreline's eastern most point (See attachment B and C).

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 Florida Administrative Code.]

The Licensee may request modification of the following applicable FWC conditions upon issuance by the Department of Environmental Protection, in consultation with the FWC, of Final NPDES permit modification FL0001473 if such requested modifications to the conditions herein have been adopted into the Final NPDES permit.

Environmental Monitoring

5. The following monitoring requirements are applicable to the interim warm-water refuge period and two years post commercial operation of CCE-C:
 - a. Within 180 days following certification of the CCEC, the Licensee (Florida Power & Light Company) shall submit to the FWC, Florida Department of Environmental Protection (DEP) Siting Office, and the USFWS an Environmental Monitoring Plan. The Environmental Monitoring Plan shall include, at a minimum, the following components:
 - i. An evaluation of the interim heating system to determine its ability to provide a sufficient manatee warm-water refuge (as described in conditions 4 and 5, and the Licensee's Thermal Modeling Study) during the winter months shall take place prior to discontinuation of the current warm-water discharge. Evaluation of the system shall include its performance during cold fronts and varying tidal and wind conditions, if present, for a duration to be established in the Environmental Monitoring Plan.
 - ii. If an interim heating system is installed at Riviera Beach Energy Center (RBEC) in 2009 an initial evaluation of the interim heating system, during winter conditions, shall be conducted there.
 - iii. The interim heating system at the CCEC site shall be installed and operational by September 15, 2010 or as soon as practicable after certification, whichever is later. However, the conversion from the existing system to the interim system cannot be implemented during the winter months (November through March). The warm-water refuge created by this system shall be monitored during initial testing at the CCEC site between September 15 and October 15, 2010, or the duration described in 5.a.i. and the empirical temperature data will be collected and compared to the thermal modeling results to evaluate the performance of the interim heating system and the accuracy of the thermal model.
 - iv. Monitoring of the CCEC's interim warm-water refuge during the conversion shall consist of winter (October 15 through March 31)

- ambient air and water temperatures measured at multiple locations within the interim warm-water refuge. The number and configuration of temperature monitoring stations must be sufficient to provide a three-dimensional view, over time, of the thermal plume.
- v. Monitoring of the CCEC's post-conversion warm-water refuge shall consist of winter ambient air and water temperatures measured at multiple locations within the warm-water refuge. Monitoring for the first post conversion winter shall take place from October 15 through March 31 and from November 15 through March 31 during the second winter post construction. The number and configuration of temperature monitoring stations must be sufficient to provide a three-dimensional view, over time, of the thermal plume.
 - vi. Temperature monitoring stations will be deployed during the conversion phase in the interim refuge and post-conversion warm-water refuge. As part of this Environmental Monitoring Plan as described in this Section 5., the Licensee shall include a plan to convey the data from the temperature monitoring stations to the appropriate agencies on a daily basis when the trigger is on and the heaters are running and on a weekly basis when the ambient temperature is greater than 65 degrees.
 - vii. Specific locations for the temperature monitoring station(s), sampling frequencies, station depths data collection methods, and reporting frequencies must be identified and may be subject to further revision depending on receipt of any required permits, licenses and approvals.
 - viii. The Environmental Monitoring Plan, including the proposed monitoring locations, shall be approved prior to implementation. DEP, in consultation with the FWC and USFWS, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, DEP, in consultation with the FWC and USFWS, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information. A final plan shall be in place by September 1, 2010.
- b. The Licensee will prepare an environmental monitoring report that includes all data (made available in electronic form) and statistical analyses collected as a result of the environmental monitoring requirements. This report will be submitted yearly, by August 1 of each year, while the interim warm-water system is in operation during the construction period and two years post-conversion of the CCEC. Within 180 days of the submittal of the final yearly environmental monitoring

report, a summary report of all environmental monitoring shall be completed and submitted to the FWC, and DEP Siting Office for review.

- c. If, in the review of the annual environmental monitoring reports, DEP, in consultation with the FWC and USFWS, determines the need to modify the Environmental Monitoring Plan, DEP will notify the Licensee to discuss the findings. At that time, DEP, in consultation with the FWC and USFWS and the Licensee, will determine what, if any, modifications need to be made to the Environmental Monitoring Plan and DEP will initiate modifications to certification if necessary.
- d. If by June 1, 2010, the initial monitoring tests of the interim warm-water heating system have taken place at the Riviera Beach power plant, the Licensee will contact DEP and FWC to provide and discuss the results. At that time, DEP, in consultation with the FWC and USFWS, and the Licensee, will determine what, if any, modifications need to be made to the operation of the interim heating systems and DEP will initiate a modification to certification if necessary.
- e. By November 1, 2010, or two weeks after completion of the initial monitoring test of the interim warm-water heating system at the CCEC, the Licensee will contact DEP, FWC and USFWS to provide and discuss the results. At that time, DEP, in consultation with the FWC, USFWS, and the Licensee, will determine what, if any, modifications need to be made to the operation of the interim heating system and DEP will initiate a modification to certification if necessary.
- f. If the Licensee determines the Environmental Monitoring Plan is in need of modifications during the operation of the interim heating system, the Licensee will contact the agencies to discuss the proposed modifications. At that time, DEP, in consultation with the FWC and USFWS and the Licensee, will determine what if any modifications need to be made to the Environmental Monitoring Plan and the DEP shall initiate a modification to certification if necessary.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 Florida Administrative Code.]

Biological Monitoring

6. The following monitoring requirements for manatee distribution and abundance are applicable to the interim warm-water refuge and two year post-commercial operation of CCEC:

- a. Within 180 days following certification of the CCEC, the Licensee shall submit to the DEP Siting Office and FWC, a Biological Monitoring Plan. The Biological Monitoring Plan shall include at a minimum the following components:
- i. Monitor the winter (October 15 through March 31) distribution and abundance of manatees during the time frame that includes the operation of the interim warm-water heating system. Monitor the winter (November 15 through March 31) distribution and abundance of manatees during the two years' post-conversion at the CCEC warm-water refuge.
 - ii. Biological monitoring shall at a minimum be conducted through aerial surveys and telemetry tagged manatees.
 - iii. Specific aerial survey paths, sampling frequencies, and methodologies for aerial surveys. At a minimum, aerial survey flight paths shall encompass known manatee winter habitat including travel corridors and passive warm-water sites throughout Brevard County on a weekly basis during the interim period during the winter months (October 15 through March 31). Once the converted CCEC is in operation the aerial surveys shall be conducted on a twice a month basis for two years post commercial operation during the winter months. After the first year of post conversion surveys FWC will discuss the results with the Licensee and determine if the second year's surveys can be reduced to one survey per month.
 - iv. Aerial surveys shall be designed so the data collected will provide an evaluation of manatee abundance and distributional changes in Brevard County in a statistically valid manner that is consistent with past aerial survey data.
 - v. Telemetry monitoring shall be accomplished by the Licensee through the use of FWC or another entity with experience in manatee telemetry tracking, and data analysis in Florida by providing them \$50,000 per winter season to be used for the purchase of up to three tags annually, if needed, and the accompanying annual activities and research, tracking and monitoring activities, data collection, ARGOS usage, software purchase and update, and one final report to the Licensee. This condition will coincide with the use of the interim heating system and 2 years post-commercial operation of CCEC. After the first year of post conversion telemetry monitoring FWC will discuss the results with the Licensee and the parties will determine if the second year's monitoring can be eliminated. The tags will be attached to manatees captured at, or near the CCEC site to document their movements to secondary warm-water sites, nighttime habitat use, behavioral response to changes in the operation of the interim refuge (e.g., availability of warm-water

discharge in relation to the trigger temperature), and thermal regime experienced by manatees during the conversion of CCEC. The details of the telemetry effort will be provided in the biological monitoring plan and, if requested by the licensee, FWC and USFWS can provide assistance.

- vi. The Biological Monitoring Plan shall be reviewed and approved prior to implementation. DEP, in consultation with the FWC and USFWS, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, DEP, in consultation with the FWC and USFWS, shall make a written request to the Licensee for additional information no later than 30 days after receipt of the submitted information. A final plan shall be in place by September 1, 2010.
- b. The Licensee shall provide a manatee observer(s) who has sufficient experience in detecting indicators of cold stress in manatees. The monitoring protocols and individuals acting as manatee observer(s) will require approval from the FWC.
- c. The manatee observer will be required to conduct a daily visual assessment of the condition and general distribution of manatees using the interim warm-water refuge during the winter months (October 15 through March 31) during the interim period. The visual assessments shall be conducted for a sufficient length of time to assess most of the manatees present at the plant and accessible to the observer on that day. If an approved observer is not available, licensee shall notify FWC as soon as possible, but no later than 48 hours, to coordinate actions necessary to resume the observation program.
- d. The Licensee shall provide two moveable land-based observation platforms located along the interim warm-water refuge. These will be used by the manatee observer(s) for conducting assessments of cold stress symptoms and by FWC or USFWS staff monitoring manatee use of the interim refuge through photo identification.
- e. The Licensee will prepare a biological monitoring report that includes all data (made available in electronic form) and statistical analyses completed as a result of the requirements set forth in the biological monitoring plan. This report will be submitted yearly, by August 1 of each year, when the interim warm-water system is in operation during the construction period and two years post-commercial operation date. Within 180 days of submittal of the final yearly biological monitoring report a summary of all biological monitoring reports shall be completed and submitted to the FWC and DEP Siting Office for review.

- f. If, in the review of the biological monitoring reports, DEP, in consultation with FWC and USFWS, determines the need to modify the Biological Monitoring Plan, DEP will notify the Licensee to discuss the findings. At that time, DEP, in consultation with the FWC and USFWS, and the Licensee will determine what if any modifications need to be made to the Biological Monitoring Plan and the DEP will initiate a modification to certification if necessary.
- g. If the Licensee determines the Biological Monitoring Plan is in need of modifications during the operation of the interim heating system, the Licensee will contact the agencies to discuss the proposed modifications. At that time, DEP, in consultation with the FWC and USFWS, and the Licensee will determine what, if any modifications need to be made to the Biological Monitoring Plan and the DEP will initiate a modification to certification if necessary.
- h. The Licensee will provide personnel from the FWC, USFWS, USGS Sirenia Project, or a designee of these agencies, access to the CCEC property to conduct manatee monitoring activities. Reasonable notice shall be given to the Licensee by the agencies. Access would be limited to normal weekday business hours (8:00 a.m. - 5:00 p.m.) unless arrangements are made in advance with the Licensee.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 Florida Administrative Code.]

Contingency Plan

- 7. FWC and USFWS' LOA (Letter of Authorization) network responders will be responsible for all efforts related to manatee rescues, rehabilitation activities, and carcass recovery during the CCEC conversion. In order to effectively implement contingency plans during the plant conversion and to address manatee health-related issues due to a malfunction or inability of the interim warm-water heating system to effectively provide a warm-water refuge during the winter months (October 15 through March 31), the following conditions are required:
 - a. If the observer (pursuant to conditions 6.b., c. and d.) identifies manatees with apparent signs of cold stress disease, digital photographs should be taken of the animal(s) and the FWC shall be called as soon as possible on the day of the observations through the following methods. An FWC biologist can be reached via pager at 800-714-0620 (enter the callers contact number followed by the code "02"). A page will be returned within 30 minutes; if not, resend the page. For immediate emergency situations FWC's Wildlife Alert number can also be called at 888-404-FWCC.

- b. The Licensee will notify FWC and USFWS immediately if there is a mechanical failure of the interim heating system, or if, for any other reason the interim heating system is not operating in a manner that will provide warm-water sufficient to keep the warm-water refuge at a temperature of 68° F or greater.
- c. The Licensee shall provide in-kind services and financial assistance, not to exceed \$100,000 in total value, to FWC for manatee rescue or recovery in the event that there is a failure of the interim heating system resulting from Licensee's failure to comply with Condition 4.b. that causes death or identifiable cold stress to manatees in Brevard County. This condition would apply during the winter months (October 15 through March 31). The in-kind assistance and funds would only be used to address manatee-related cold stress issues in the area that the interim system affects.
- d. The Licensee will provide personnel from the FWC, USFWS, USGS-Sirenia Project, or a designee of these agencies, access to the CCEC property to conduct manatee monitoring activities. Reasonable notice shall be given to the licensee by the agencies. Access would be limited to normal weekday business hours (8:00 a.m. - 5:00 p.m.) unless arrangements are made in advance with the Licensee.
- e. The Licensee will include as part of its safety orientation manatee awareness training for full-time permanent construction personnel at the CCEC site. This training will be designed to educate the construction work force about the legal requirements to avoid manatees and to provide them with contact information if they should spot an injured manatee.
- f. All visitors to CCEC will be required to comply with FPL's safety and security requirements. Personnel will receive an orientation from FPL or its contractor prior to commencing observations or other activities.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Rules 68A-27 Florida Administrative Code.]

Development of a Long-Term Manatee Strategy

- 8. It is expected that at some point in the future the warm-water habitat created by the CCEC will diminish or be terminated in that event the FWC and USFWS believes it is in the best interest of the Licensee, FWC, USFWS, DEP, and the Florida manatee population to begin strategic long term planning to reduce the adverse affects to the Florida manatee population before this occurs.
 - a. Within two years of the formal approval by FWC and USFWS of a Warm-Water Action Plan (Plan), inclusive of a future-oriented Management Policy for Warm-Water Manatee Habitat, the Licensee shall host and chair

a workshop designed to: (a) articulate a strategy for achieving the goals of that Plan, (b) develop a timetable for implementing the strategy, (c) review progress to date in achieving the strategy, and (d) identify impediments and solutions.

- b. Within one year of the workshop held pursuant to Condition 1, the Licensee shall provide the FWC and USFWS with a formal report of the workshop, including findings, conclusions, and recommendations.
- c. Over the course of the operating life span of the CCEC the Licensee shall develop an exit strategy for the CCEC that prevents significant losses to the manatee population when the Licensee determines reduce or eliminate the CCEC's thermal discharge to the extent that a dependable warm-water refuge is no longer present. The Licensee's strategy shall consider FWC and USFWS's statewide Warm-Water Action Plan approved by FWC and USFWS.
- d. The Licensee shall work closely with the FWC and USFWS to evaluate progress toward achieving the vision and goals of the Warm-Water Action Plan and to develop adaptive changes to the Plan as needed to promote manatee recovery through participation in periodic workshops and/or conferences designed to accomplish such evaluation and adaptive changes.

Manatee Construction Conditions For In-Water Work

- 9. The Standard Manatee Conditions for In-Water Work (revision 2009) are required for all in-water work in or adjacent to waters accessible to manatees. Blasting or pile hammering activities to break rock shall be prohibited in waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.
- 10. To reduce the possibility of injuring or killing a manatee during construction, in-water work shall not be performed between November 15 and March 31 unless essential to support the CCEC project's schedule. If in-water work during the winter cannot be avoided the Licensee will contact the agencies to determine alternative conditions that will be implemented to address the proposed activity.
- 11. At least one person shall be designated as a manatee observer when in-water work is being performed. That person shall have experience in manatee observation, be approved by the FWC two weeks before the beginning of construction, and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other

associated vessels, or any in-water work shall not be performed after sunset, when the possibility of spotting manatees is negligible. Observers shall maintain a log detailing manatee sightings, work stoppages, and other protected species-related incidents. A report, summarizing all activities noted in the observer logs, the location and name of project, and the dates and times of work shall be submitted within 30 days following project completion, to the FWC's Imperiled Species Management Section at: 620 South Meridian Street, 6A, Tallahassee, Florida 32399-1600, or e-mailed at fcmpmail@myfwc.com.

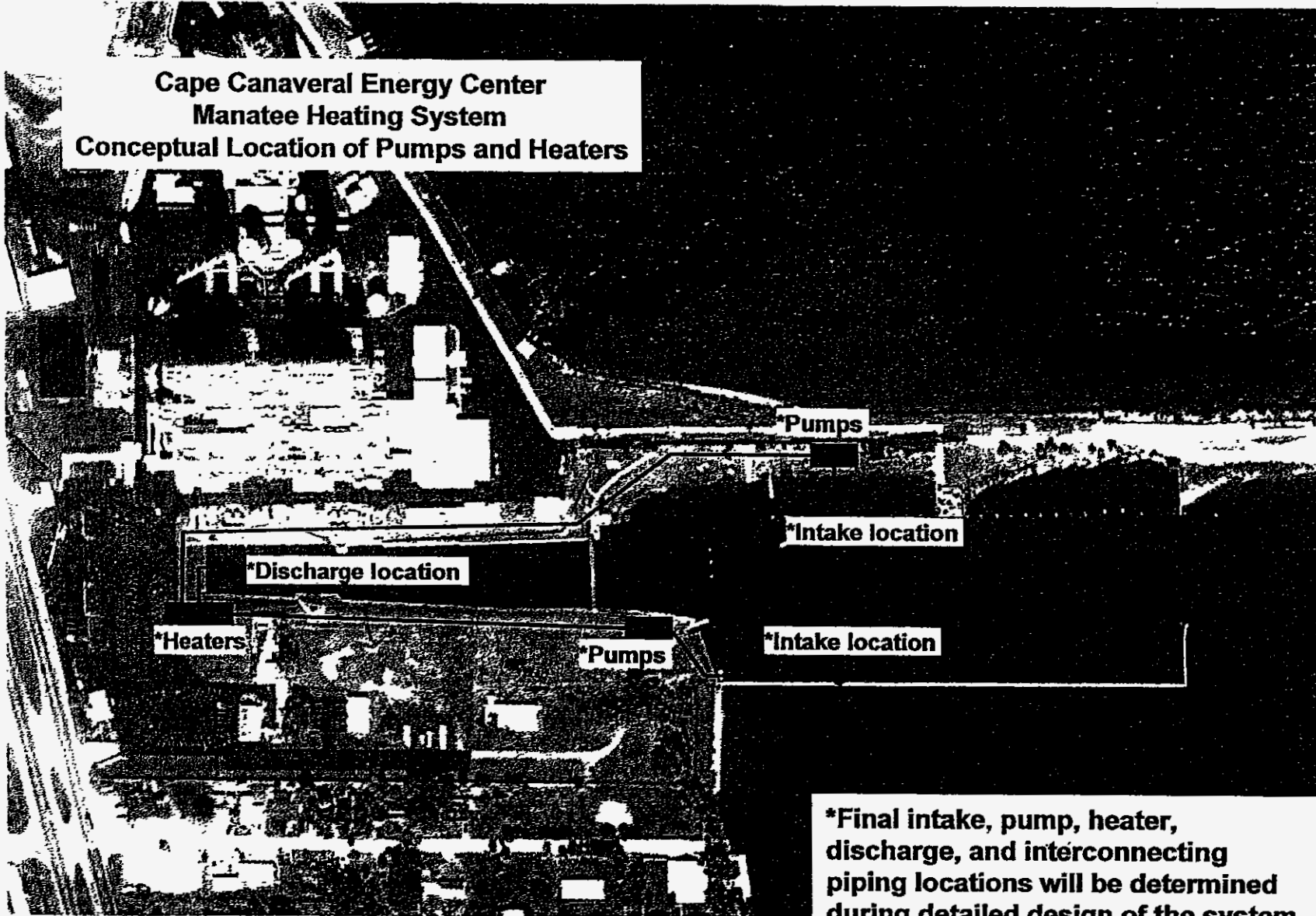
To reduce the risk of entrapment and drowning of manatees, grating shall be installed over any existing or proposed pipes or culverts greater than 8 inches, but smaller than 8 feet in diameter that are submerged or partially submerged and reasonably accessible to manatees. Bars or grates no more than 8 inches apart shall be placed on the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Rules 68A-27 Florida Administrative Code.]

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**Cape Canaveral Energy Center
Manatee Heating System
Conceptual Location of Pumps and Heaters**



***Final intake, pump, heater, discharge, and interconnecting piping locations will be determined during detailed design of the system.**