

**STATE OF FLORIDA
SITING BOARD**

IN RE: PROGRESS ENERGY FLORIDA,)
CRYSTAL RIVER UNIT 3 UPRATE)
PROJECT POWER PLANT SITING)
APPLICATION NO. PA77-09A2)
_____ /

OGC CASE NO. 07-1062
DOAH CASE NO. 07-2713EPP

FINAL ORDER APPROVING CERTIFICATION

On June 5, 2008, an administrative law judge ("ALJ") with the Division of Administrative Hearings ("DOAH") submitted his Recommended Order in this certification proceeding. The Recommended Order indicates that copies were served upon counsel for Florida Power Corporation, doing business as Progress Energy, Inc. ("Progress Energy"), and the Department of Environmental Protection ("DEP" or "Department"). The Recommended Order also shows that copies were served to counsel for other designated state, regional and local agencies. A copy of the Recommended Order is attached hereto as Exhibit A. The matter is now before the Governor and Cabinet, sitting as the "Siting Board," for final action under the Florida Electrical Power Plant Siting Act ("FEPPSA"), Sections 403.501-403.518, Florida Statutes.

BACKGROUND

Progress Energy is an investor-owned utility that provides electric service to more than 1.7 million customers in its Florida service area. Its service area covers 20,000 square miles in 35 Florida counties. On June 12, 2007, Progress Energy applied for site certification with DEP for its proposal to add 180 megawatts (MW) of

nuclear-powered electrical generating capacity to Crystal River Unit 3 (the "Uprate Project"). Crystal River Unit 3 is part of Progress Energy's 738-acre Crystal River Energy Complex located in an unincorporated area of northern Citrus County near Yankeetown, Inglis, and the City of Crystal River. Because Crystal River Unit 3 was under construction before the FEPPSA took effect and has not been certified under the Act, DEP and Progress Energy intend to certify all of Unit 3 at this time, both the existing facilities and the proposed Uprate Project. This certification would combine all required state permits for Crystal River Unit 3 into one complete set of Conditions of Certification. The Conditions of Certification are attached hereto as Exhibit B.

Unit 3 is a pressurized water nuclear reactor composed of a primary system that converts heat from the nuclear reaction into steam, which is then transferred to the secondary system where it drives a steam turbine/electrical generator. The Uprate Project involves modifications and replacements of existing plant components to increase the efficiency of the unit and support increased electricity production by 180 MW of generating capacity, bringing the total capacity of Unit 3 to 1,080 MW. Work on the Project would proceed in two phases; the first beginning in 2009 and the second beginning in 2011. The Project would not require physical expansion to obtain this additional electrical generation.

The predominant land uses surrounding the Complex include undeveloped agricultural and forested lands, as well as some industrial facilities and mining operations. The Uprate Project comports with existing land uses because Unit 3 is

currently in operation and the proposed modifications will not change the existing land use of the site or the surrounding areas.

The Public Service Commission ("PSC") determined that there is a need for the Uprate Project, finding that it will displace higher-cost fossil-fuel electrical generation with low-cost nuclear power generation, "resulting in substantial fuel savings that provide a net benefit to customers." It further found that the Project would provide a stable source of additional base load power not subject to the same supply interruptions or price volatility that can affect fossil fuels. The PSC concluded that expanded energy conservation programs cannot displace the Uprate Project and that Progress Energy already exceeds its PSC-approved numeric energy conservation goals.

DOAH PROCEEDINGS

On June 6, 2007, DEP provided DOAH with a Notice of Receipt of Progress Energy's Power Plant Siting Application and filed a Request for Assignment of an Administrative Law Judge. In accordance with the FEPPSA and Florida Administrative Code Chapter 62-17, notice was given to all persons, entities and parties entitled to notice, as well as to the general public. All necessary and required governmental agencies participated in the certification process. Reports and studies were issued by DEP, Southwest Florida Water Management District, Florida Fish and Wildlife Conservation Commission, Withlacoochee Regional Planning Council, and the Florida Department of Transportation. After receiving additional information from Progress Energy, the Department determined that the application was complete on September 11, 2007. On February, 1, 2008, the Department issued its Staff Analysis Report

pursuant to Section 403.507(5), Florida Statutes. The Staff Analysis Report, entered into evidence at the administrative hearing as Exhibit FDEP-2, contained reports from other agencies and the proposed Conditions of Certification.

On August 1, 2007, Citrus County issued its Determination of Compliance with Local Land Use Plans and Zoning, pursuant to Section 403.50665, Florida Statutes, finding the Uprate project consistent with the comprehensive plan and zoning ordinances of Citrus County. Following public notice of the determination, no person filed a petition to challenge the County's land use consistency determination.

The certification hearing took place in Crystal River, Florida on March 17, 2008. No person sought to intervene and participate as a party in the certification hearing, and Progress Energy and DEP filed a Prehearing Stipulation in which no disputed issues of fact or law were identified. Both Progress Energy and the Department presented expert testimony and other evidence at the hearing in support of site certification. After the presentation of this evidence, four members of the general public participated in a hearing held for the exclusive purpose of receiving testimony from the public. None opposed the Uprate Project.

On May 1, 2008, the ALJ requested, and the parties agreed to file, supplemental written testimony and proposed findings of fact regarding the structures, operations, and permitting conditions associated with the existing Crystal River Unit 3 facilities. The parties jointly filed the supplemental information on May 23, 2008.

RECOMMENDED ORDER

On June 5, 2008, the ALJ entered his Site Certification Recommended Order for the existing Unit 3 facilities and the Uprate Project. The ALJ concluded that Progress Energy provided reasonable assurances that Crystal River Unit 3, as modified by the proposed Uprate Project, is entitled to certification pursuant to Section 403.509(3), Florida Statutes. The ALJ found that Progress Energy is operating Crystal River Unit 3 in compliance with all the conditions set by relevant federal and state permits. He also concluded that the construction and operational safeguards were technically sufficient for the welfare and protection of the citizens of Florida and that the certification would fully balance the demand for electrical power plant location and operation with the broad interest of the public.

The ALJ further found that the net environmental impacts associated with construction and operation of the Uprate Project would be minimal; that it would not have any expected adverse effect on wildlife habitat or nearby public recreational or environmentally protected areas; and that Progress Energy has methods in place by which it intends to avoid, minimize or mitigate potential environmental impacts.

The ALJ ultimately recommended that the Siting Board grant final certification under the FEPPSA to Progress Energy for Crystal River Unit 3 at the Crystal River Energy Complex, including the addition of 180 megawatts of nuclear-fueled electrical generating capacity through the Uprate Project, as proposed in the Site Certification Application, and subject to the Conditions of Certification delineated in the Staff Analysis Report.

CONCLUSION

No exceptions were filed in this certification proceeding challenging any of the ALJ's findings or conclusions in the Site Certification Recommended Order. Further, the record in this proceeding is devoid of any objections by any governmental agencies to site certification. Based on a review of the record and the governing law, the Siting Board concludes that Progress Energy's existing facilities at Crystal River 3 and its proposed modifications in the Uprate Project comply with the certification requirements of the FEPPSA, and that the site certification fully balances the increasing demands for electrical power plant location and operation with the broad interests of the public.

It is therefore ORDERED that:

- A. The Recommended Order on Certification (Exhibit A) is adopted in its entirety and incorporated by reference herein.
- B. Certification of the location, construction, and operation of Crystal River Unit 3 as described in Progress Energy's site certification application and by the evidence presented at the certification hearing is APPROVED, subject to the Conditions of Certification attached hereto (Exhibit B) and incorporated by reference herein.
- C. Authority to assure and enforce compliance by Progress Energy and its agents with all of the Conditions of Certification imposed by this Final Order is hereby delegated to DEP.

Any party to this proceeding has the right to seek judicial review of the Final Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal

pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, 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 this Final Order is filed with the clerk of the Department.

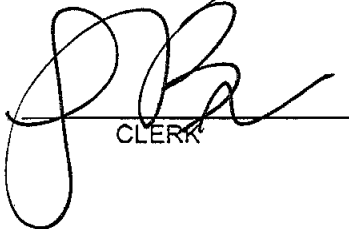
DONE AND ORDERED this 28th day of AUGUST, 2008, in Tallahassee, Florida, pursuant to a vote of the Governor and Cabinet, sitting as the Siting Board, at a duly noticed and constituted Cabinet meeting held on AUGUST 12, 2008.

THE GOVERNOR AND CABINET
SITTING AS THE SITING BOARD



THE HONORABLE CHARLIE CRIST
GOVERNOR

FILING IS ACKNOWLEDGED ON THIS DATE,
PURSUANT TO § 120.52, FLORIDA STATUTES,
WITH THE DESIGNATED DEPARTMENT CLERK,
RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED.


CLERK

8/28/08
DATE

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Final Order has been sent by United States Postal Service to:

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this 12th day of AUGUST, 2008.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

(For) 
FRANCINE M. FFOLKES

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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: PROGRESS ENERGY	)	
FLORIDA, CRYSTAL RIVER UNIT 3	)	
UPRATE PROJECT POWER PLANT	)	Case No. 07-2713EPP
SITING APPLICATION NO PA77-09A2	)	
_____	)	

RECOMMENDED ORDER ON CERTIFICATION

The certification hearing in this case was held on March 17, 2008, in Crystal River, Florida, before Administrative Law Judge Bram D. E. Canter of the Division of Administrative Hearings.

APPEARANCES

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STATEMENT OF THE ISSUE

The issue to be determined in this case is whether the Siting Board should certify Crystal River Unit 3 at the Crystal River Energy Complex in Citrus County, Florida, owned and

operated by Florida Power Corporation, doing business as Progress Energy Florida, Inc. (Progress Energy).

PRELIMINARY STATEMENT

On June 12, 2007, Progress Energy filed its application for site certification with the Florida Department of Environmental Protection (Department), pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes (2007),¹ and Florida Administrative Code Chapter 62-17. Copies of the application were distributed to other agencies for their review and copies were made available for public review at the local library. The application for certification was prompted by Progress Energy's proposal to add 180 megawatts (MW) of nuclear-powered electrical generating capacity to Crystal River Unit 3 (the "Uprate Project"). Because Crystal River Unit 3 has not previously been certified, it is the intent of Progress Energy and the Department that all of Crystal River Unit 3, both the existing facilities and the proposed Uprate Project, be certified at this time.

On July 20, 2007, the Department issued a Determination of Incompleteness and requested additional information from Progress Energy concerning its application. On August 22, 2007, Progress Energy filed its responses to the Department's Determination of Incompleteness. On September 11, 2007, the Department determined that the application was complete.

On August 1, 2007, Citrus County issued its Determination of Compliance with Local Land Use Plans and Zoning, pursuant to Section 403.50665, Florida Statutes, finding that the Uprate Project was consistent with the comprehensive plan and zoning ordinances of Citrus County. Following public notice of the determination, no person filed a petition to challenge the County's land use consistency determination.

On February 1, 2008, the Department issued its Staff Analysis Report pursuant to Section 403.507(5), Florida Statutes. The Staff Analysis Report contained reports from other agencies and proposed Conditions of Certification.

No person sought to intervene and participate as a party in the certification hearing. Progress Energy and the Department filed a Prehearing Stipulation in which no disputed issues of fact or law were identified.

At the certification hearing, Progress Energy presented the live testimony of Ken Wilson, Harold Frediani, Jr., David Bruzek, and Kelly Gleaton. The pre-filed testimony of these witnesses was also presented by Progress Energy and accepted into evidence. Additional pre-filed testimony was presented and accepted into evidence for David Bear, Carl Bullock, Jason Collins, and Scott Osborne. Progress Energy's Exhibits 1 through 9 were admitted into evidence. The Department presented the testimony of Cindy Mulkey. The Department's Exhibits 1 and

2 were admitted into evidence. No agency other than the Department appeared at the hearing.

Following the presentation of evidence by the parties, a hearing was held for the exclusive purpose of receiving testimony from members of the general public. Four members of the public provided testimony. None opposed the Uprate Project.

On May 1, 2008, the Administrative Law Judge requested, and the parties agreed to file, supplemental written testimony and proposed findings of fact regarding the structures, operations, and permitting conditions associated with the existing Crystal River Unit 3 facilities. The parties jointly filed the supplemental information on May 23, 2008, which included additional sworn written testimony by Ken Wilson.

The one-volume Transcript of the hearing was filed with the Division of Administrative Hearings. Progress Energy and the Department filed a joint proposed recommended order which was duly considered in the preparation of this Recommended Order.

FINDINGS OF FACT

1. Florida Power Corporation, doing business as Progress Energy Florida, Inc., is an investor-owned utility that provides electric service to more than 1.7 million customers in its Florida service area. Progress Energy's service area covers 20,000 square miles in 35 Florida counties.

2. Crystal River Unit 3 is part of Progress Energy's 738-acre Crystal River Energy Complex, which is located in an unincorporated area of northern Citrus County. Yankeetown, Inglis, and the City of Crystal River are within a five-mile radius of the Complex.

3. The Crystal River Energy Complex has five electrical generating units. Units 1 and 2 are coal-fired units which were constructed in the 1960s and produce approximately 900 MW. Unit 3 is a nuclear-powered unit that went into operation in 1977, and also generates about 900 MW. Units 4 and 5 are 750 MW coal-fired units which became operational in the mid-1980s after being certified under the Power Plant Siting Act. The electrical power generated by the five units is delivered to Progress Energy's electrical transmission system through shared 230 kV and 500 kV switchyards on the Crystal River Energy Complex site.

4. Cooling water for Crystal River Units 1, 2, and 3 is withdrawn from an intake canal which connects to Crystal Bay and the Gulf of Mexico. Water is pulled from the intake canal by pumps, sent through the condensers for Units 1, 2 and 3, where it becomes heated, and then is carried out to Crystal Bay via the discharge canal. The discharge canal extends approximately 1.2 miles offshore.

5. Crystal River Units 1, 2, and 3 share a supplemental or “helper” cooling tower system, which uses mechanical draft towers through which air is moved by large fans. When the temperature of the combined discharge water approaches 96.5 degrees Fahrenheit, heated water is withdrawn from the discharge canal and sent through the helper tower cells to cool the water enough so that when it is returned to the discharge canal, the combined temperature in the water will not exceed the permitted limit of 96.5 degrees F on a three-hour rolling average.

6. Progress Energy operates a Mariculture Center at the Complex, which is a multi-species marine hatchery established in the early 1990’s to mitigate fisheries impacts caused by the introduction of heated water into adjacent waters. Progress Energy has also implemented a Department-approved manatee protection plan that establishes a number of guidelines to minimize adverse impacts to manatees at the intake and outfall areas.

7. A sea turtle monitoring and rescue program has been initiated by Progress Energy to reduce potential sea turtle strandings and mortalities at Crystal River Unit 3. Progress Energy has implemented a Sea Turtle Rescue and Handling Guidance program which provides instructions for sea turtle observation, rescue, handling, notifications, and reporting requirements. Rescued sea turtles are transferred to the Mariculture Center

for health evaluation, and either tagged and released or transferred to a qualified center for treatment and rehabilitation, as appropriate.

8. The land uses in the area immediately surrounding the Complex are primarily undeveloped agricultural and forested lands, and some mining operations. Most of the area within a five-mile radius of the Complex consists of agricultural, industrial, or open lands. The nearest occupied residence is over three miles away to the northeast.

9. Since Unit 3 began operations, there has been active mining and some rural residential and commercial development along US 19 between Crystal River and the plant site, all of which is more than five miles away.

Crystal River Unit 3 - Existing Facilities to be Certified

10. Crystal River Unit 3 was not previously certified under the Power Plant Siting Act, because it was under construction before the Siting Act took effect. If the Uprate Project is certified, it is the intent of Progress Energy and the Department to make all of Unit 3 subject to the Conditions of Certification and to the Siting Act.

11. Unit 3 is a pressurized water nuclear reactor. The unit operates in a baseload condition, which means it operates on an almost continuous basis throughout the year except for scheduled outages. The unit is composed of a primary and

secondary system. The primary system is comprised of the nuclear reactor, four reactor cooling pumps, and two steam generators. The steam generators convert the heat from the nuclear reaction into steam that is transferred to the secondary system. In the secondary system, the steam is used to drive a steam turbine/electrical generator. Electricity is then sent to the existing electrical onsite switchyards for distribution over Progress Energy's electrical transmission system.

12. The condenser is essentially a large metal box with thousands of small diameter tubes through which "circulating water" is flowing. Steam from the steam turbines is introduced into the condenser box and when the steam contacts the outer wall of a water-laden tube, heat is drawn from the steam, through the tube wall, and into the circulating water. This causes the steam to cool and condense. The condensed steam, called "condensate", is collected in the bottom of the box, and recycled to minimize water consumption. Warmed water from Unit 3 is then released to the discharge canal.

13. The Unit 3 site is 26.86 acres of developed land within the Crystal River Energy Complex. The site contains no significant environmental features. No archaeological or historical features have been found on the site, but Progress Energy has agreed to consult with the Division of Historical

Resources if any archaeological or historical finds are made at the site.

14. The major components of Unit 3 to be certified are the nuclear reactor and its related facilities. The facilities to be certified include the control complex, the turbine building, and auxiliary and intermediate buildings which are associated with the normal operation of Unit 3, the nuclear administrative building, plant administrative buildings, the technical support center, and warehouse and support buildings, the Unit 3 intake and discharge structures, and the reactor head storage building and maintenance training facility.

15. Unit 3 is supported by several common facilities that also serve some or all of the other generating units at the Complex. These common facilities include the helper cooling towers along the discharge canal, onsite warehouses, site administrative building, parking lots, electrical switchyards, transmission lines and the site access road. The intake and discharge canals also serve all of the existing units and are considered to be common facilities for the Complex. These common facilities are not being proposed for certification.

16. There is a potable water treatment facility and a domestic wastewater treatment plant that serve Units 1, 2 and 3. No changes to these facilities are required for the Uprate

Project. Both are located outside of the Unit 3 certification area.

Existing Permits

17. There is an existing state industrial wastewater permit that applies to the operation of all five generating units at the Complex. This permit covers a series of basins that act as settling and percolation ponds. The basins are subject to a groundwater monitoring program to monitor for compliance with state groundwater standards.

18. Under federal delegation, the Department issued a National Pollutant Discharge Elimination System (NPDES) permit for Units 1, 2 and 3. The NPDES permit covers the discharge of once-through condenser cooling water from Units 1, 2 and 3, Unit 3's auxiliary cooling water, treated coal pile runoff from Units 1 and 2, and other liquid waste streams.

19. The Department has also issued a Title V air operation permit for the Crystal River Energy Complex that covers all five generating units. This permit was issued by the Department under the federal Clean Air Act, acting on behalf of the federal EPA. Unit 3 does not have air emissions that are subject to the permit, except for any air emissions from the existing helper mechanical cooling towers. The Title V permit covers three diesel generators for Unit 3 as unregulated air emissions units.

20. Progress Energy is operating Crystal River Unit 3 in compliance with all of the conditions of these permits.

21. The result of certification of the Uprate Project under the Siting Act will be the combining of all required state permits into one complete set of Conditions of Certification. Because several of the existing permits issued to Progress Energy for Unit 3 cover other uncertified units at the Complex, those permits would continue in force and would not be replaced by the Conditions of Certification. Instead, those separate permits are incorporated by reference in the body of, and attached as appendices to, the proposed Conditions of Certification.

22. The common permits that apply to Unit 3 and other units at the Complex, and which were described above as not part of the Unit 3 certification, would not be renewed pursuant to the Siting Act. They would be renewed under the "normal" procedures applicable to other regulated industrial facilities. However, modified and reissued permits, as they relate to Unit 3, would be incorporated by reference into the Conditions of Certification.

23. The permits issued by the Department under the federal Clean Air Act and Clean Water Act are not subject to the Florida Power Plant Siting Act. The Siting Act provides that federal permits are reviewed and issued separately by the Department,

but in coordination with the Siting Act process to the extent possible. However, these federal permits would also be attached to and incorporated into the Conditions of Certification for Crystal River Unit 3. As those permits are modified or reissued in the future, they would be incorporated.

24. The Department has already issued a Prevention of Significant Deterioration (PSD) permit for the proposed South Cooling Tower. The PSD permit is also incorporated by reference into the proposed Conditions of Certification.

25. The conditions provide for post-certification review of the proposed South Cooling Tower. Progress Energy will design that tower and select its final site. Progress Energy will then submit to the Department documentation on stormwater management and wetland impacts, as well as a wetlands mitigation plan, if necessary, for the cooling tower site. The Department will then review and approve this tower under its Environmental Resource Permitting requirements. Construction of the tower cannot begin until the Department approves it. This post-certification review is typical for power plant siting cases and insures compliance with applicable agency criteria and Conditions of Certification.

The Uprate Project

26. The Uprate Project would add 180 MW of generating capacity to Unit 3, for a total of 1,080 MW. The Uprate Project

does not affect the other four generating units within the Crystal River Energy Complex.

27. Unit 3 would not have to be physically expanded to obtain the additional electrical generation. The Uprate Project involves modifications and replacements of existing plant components to increase the efficiency of the unit, principally within the secondary system of the unit, as well as to support increased electricity production.

28. The Uprate Project would be undertaken in two phases. In 2009, during an already-scheduled refueling outage and steam generator replacement for Unit 3, the low pressure turbines and electrical generator would be replaced or rebuilt, as needed. Additionally, a number of secondary side components, including heat exchangers and associated piping and valves, would be modified or replaced. The net effect of these initial modifications would be to increase the efficiency of the secondary plant portion of Unit 3 so that the same primary plant output results in approximately 40 MW greater electrical output.

29. In the second stage of the Uprate Project, additional plant modifications will be undertaken during a scheduled outage in 2011. These modifications would include replacing the high pressure turbines, replacing the condensate, feed-water booster and circulating water pumps and/or motors to increase their flow capacity, and other associated modifications. This second set

of modifications is expected to increase the electrical output by an additional 140 MW, and allow Unit 3 to generate approximately 1080 MW.

30. The Uprate Project would include alterations that would elevate Unit 3's thermal, or warm water, discharge. As one option for offsetting the increased thermal discharge, Progress Energy has developed a conceptual design plan for a new South Cooling Tower. The planned additional cooling tower would also be operated to avoid or minimize increased flow to the intake canal from Crystal Bay. This would be accomplished by routing a portion of the new cooling tower's discharge to the intake canal, thus avoiding additional intake or withdrawal of water from Crystal Bay.

31. The modifications to the circulating water system would be addressed in a detailed engineering study. Options would be discussed with the regulatory agencies. These options would be designed to result in equivalent or less thermal and biological impacts compared to the cooling system that currently exists. The options would maintain existing thermal discharge limits for plant cooling water and minimize impacts to aquatic organisms. The final design of the new South Cooling Tower would be addressed as part of the National Pollutant Discharge Elimination System permit renewal in 2009.

32. Electricity generated at the Complex is distributed from shared 230 kV and 500 kV switchyards on the site. The Uprate Project will utilize these existing electrical transmission lines. No changes to the transmission system are required for the additional electricity that would be produced.

33. The Uprate Project will not significantly alter fuel utilization by Unit 3. Additional enriched fuel will be used in the unit following the Uprate Project, through increases in the size of the refueling batches, to supply the energy to support operation of the unit at the higher power levels.

34. The construction and operation of the uprated Unit 3 would not generate any hazardous wastes. Its construction and operation would not cause any change in Progress Energy's spent fuel storage systems, which store spent nuclear fuel in onsite facilities.

35. In 2009 (in support of the more substantial uprate activity in 2011), Progress Energy would request that the US Nuclear Regulatory Commission increase the licensed rated thermal output of Unit 3 from 2609 MW thermal to 3010 MW thermal. In a nuclear power plant, the thermal capacity is approximately three times greater than its electrical capacity. Therefore, the plants are often identified by both their thermal capacity (MWt) and their electrical capability (MWe).

Uprate Project Impacts

36. Net environmental impacts associated with construction and operation of the Uprate Project are expected to be minimal. The principal impacts are related to the potential increase in cooling water flow through Unit 3 following the Uprate Project's completion, and the potential effects of the increased temperature of the cooling water. These effects are expected to be offset by modifications to the circulating water system. Construction impacts of the Uprate Project will be minimal, with expected construction traffic volumes falling within acceptable levels.

37. The modifications involved in the Uprate Project would be conducted within areas already used for electrical power generation. Therefore, there are no expected impacts to wildlife habitat. Only common bird species typical of urban/industrial areas have been observed within the project area. No threatened, endangered, or plant or animal species of special concern (listed species) are found within the project area. Wading birds classified as species of special concern by the Fish and Wildlife Conservation Commission occasionally forage within wetlands outside of the project area. Gopher tortoises have been observed outside of the project area along the rail line on the Crystal River Energy Complex. However, no adverse impacts to listed species are anticipated as a result of

the Uprate Project. Construction "laydown" and parking areas associated with the separate Steam Generator Replacement Project for Unit 3 would also be utilized for the Uprate Project in order to avoid or minimize impacts.

38. No wetland habitat will be disturbed as a result of the Uprate Project itself. The location of the proposed supplemental cooling tower has not been finalized. The new South Cooling Tower would be located to avoid and minimize impacts to wetlands. If unavoidable wetland impacts would occur at the site that is selected, appropriate mitigation would be provided in accordance with a post-certification Environmental Resource Review.

39. The Uprate Project is expected to result in an increase in heat produced by the Unit 3 reactor. This increase in heat would result in an increase in the heat rejected by the Unit 3 condenser to the circulating water which is then released to the discharge canal. The heat rejection will increase by an estimated 768 million Btu per hour, an increase of about 13 percent over current levels. Progress Energy can accommodate this increase in rejected heat by increasing the circulating water flow rate through Unit 3, by increasing the temperature rise of the circulating water from Unit 3, or by increasing both.

40. The Unit 3 circulating water pumps may be modified to increase their design flow rate by up to an additional 150,000 gallons per minute ("gpm"). At this flow rate, the temperature of the Unit 3 discharge water would decrease. However, if the circulating water flow rate is not increased, the temperature of the discharged water could increase due to the increased heat rejection from the uprated unit. The actual operation is expected to have results somewhere between these two extremes of increased flow and increased temperature of the circulating water.

41. There are four potential adverse impacts that might result from either increasing Unit 3's circulating water flow or increasing the temperature of the cooling water discharge from Unit 3. First, there could be an increase in the temperature of the water discharged into Crystal Bay. Second, there could be an increase in the area of offshore waters affected by the heated water discharge. Third, there could be an increase in the number of aquatic organisms "impinged" or trapped on the cooling water intake screens. Fourth, there could be an increase in the number of aquatic organisms entrained in the intake canal and the cooling system. Entrainment refers to passage of eggs and early larval stage organisms through the intake canal, intake screens, and ultimately through the circulating cooling water system. However, Progress Energy

intends to avoid or minimize these potential environmental impacts.

42. To avoid or minimize the impacts of increased cooling water flow and temperature, Progress Energy is evaluating a series of modifications to the existing cooling water system, including the installation of the South Cooling Tower. The intake and flow modifications will be designed to reduce the increased thermal load from the Uprate Project by removing heated effluent from the discharge canal and to avoid or minimize any net increase in the number of organisms being drawn into Unit 3.

43. The proposed new South Cooling Tower would be located between the intake canal and discharge canal, west of Units 1, 2 and 3. Detailed design and location of the South Cooling Tower would be addressed as part of the renewal of the NPDES permit renewal in 2009. That renewed permit would be incorporated into the conditions of certification for Unit 3.

44. As part of potential cooling water modifications, the South Cooling Tower could withdraw water from the discharge canal to remove the incremental rejected heat anticipated by the Uprate Project. The new South Cooling Tower would be designed to dissipate the increased rejected heat from Unit 3. All or a portion of the cooled water from the South Cooling Tower could be returned to the discharge canal.

45. In addition to offsetting the increased water temperature, the South Cooling Tower design could be increased in size and provide for the return or recirculation of a portion of the cold water from the Cooling Tower to the intake canal instead of releasing it to the discharge canal. Recirculation of a portion of the South Cooling Tower's effluent back to the intake canal could be used to maintain the intake flow in the intake canal so as not to increase the existing intake flow rate from Crystal Bay. This would prevent an increase in entrainment of aquatic organisms into the intake canal.

46. Re-circulating a portion of the South Cooling Water effluent to the intake canal should prevent any increase in impingement associated with increased flow in the intake canal. Although the uprate may result in an increase in through-screen velocity, Progress Energy does not anticipate that this increase in velocity would alter present impingement levels. If increased impingement does occur, Progress Energy would take further steps to avoid or minimize increased impingement.

47. Progress Energy proposes to continue to evaluate the entrainment and impingement impacts associated with the Uprate Project. These impacts would be addressed during the NPDES renewal which is scheduled for submittal in 2009. The Uprate Project is not expected to have a negative impact to aquatic species.

48. Progress Energy currently mitigates the impacts on aquatic organisms in the circulating water system in several ways. It operates several helper cooling towers to reduce the thermal discharges from these three units. It seasonally reduces the condenser cooling water flow through Crystal River Units 1 and 2 to reduce impingement and entrainment of aquatic species. Pursuant to the current federal NPDES Permit, Progress Energy also operates a multi-species mariculture facility within the Crystal River Energy Complex. It raises several species of important marine species, such as red drum, spotted sea trout, and pink shrimp which are periodically released to adjacent surface waters. Progress Energy's mariculture operations have contributed to the restoration of red drum and scallop fisheries in the offshore and adjacent waters.

49. The associated circulating cooling water flow rate through the new South Cooling Tower will increase air emission impacts associated with increased cooling water flow in the form of particulate matter (PM). PM emissions are the dissolved minerals contained in the "drift" from the new cooling tower. This is most commonly seen as the condensed water vapor plume from a cooling tower. Other regulated air emissions, such as nitrogen oxide (NO_x) and sulfur dioxide (SO₂), will not be affected by the Uprate Project, as there will be no additional fossil fuel combustion sources for these pollutants. The Uprate

Project will not result in an increase in greenhouse gas emissions.

50. The South Cooling Tower requires an air construction permit and Prevention of Significant Deterioration ("PSD") review and approval by the Department. The Department has already issued a PSD permit for the new South Cooling Tower. The term "PSD" denotes a regulatory program, established by the U.S. Congress and implemented by the U.S. Environmental Protection Agency (USEPA) through the states, including Florida, that limits the amount of air quality degradation that can occur from new or modified air emission sources. The new cooling tower will be a modification to an existing major air emissions source, which is the Crystal River Energy Complex. The USEPA and the Department have implemented regulations requiring PSD review and permitting for new or modified sources that increase air emissions above certain threshold amounts.

51. For the proposed cooling tower, a Best Available Control technology (BACT) analysis was conducted as part of the PSD analysis for PM. BACT is an emission limit based on the maximum degree of reduction of each pollutant which, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, is achievable through available methods, systems and technologies for control of an air pollutant. The net increase of PM exceeds the Department's

significance emission rate and, therefore, is subject to BACT review. Drift eliminators are the best available control technology utilized for cooling towers. Drift eliminators are usually incorporated into the tower design to remove as many droplets as practicable from the air stream before exiting the cooling tower. Highly efficient drift eliminators have been designated for use in the proposed South Cooling Tower to control these emissions.

52. Crystal River Unit 3 is located in an area classified by the Department as attainment for all criteria air pollutants. Citrus County's air quality meets all of the federal and state ambient air quality standards. The Chassahowitzka Wilderness Area is the closest Class I area to the Crystal River site. Project air emissions are not expected to have an adverse effect on this Class I area.

53. The Uprate Project is not expected to result in any increase in the number of employees or truck deliveries after construction and upon operation of the uprated Unit 3. There should be no impact on the existing transportation infrastructure and level of service (LOS) standards as a result of the Project. No permanent traffic capacity improvements are necessary as a result of the Uprate Project.

54. During construction, the Uprate Project will cause incremental increases in traffic in the Project vicinity, but

Progress Energy has agreed to implement traffic control measures if needed.

55. A noise impact assessment was performed for the Uprate Project, both for construction and operation impacts. Baseline noise measurements were taken and projected noise levels were evaluated for potential changes in noise levels. Construction noise levels were predicted to not exceed applicable County standards. Following completion of construction of the Uprate Project, the Uprate Project will not result in an increase in noise levels in the vicinity of the plant site. The construction and operation of the uprated Unit 3 will comply with applicable Citrus County noise standards.

Land Use and Socioeconomic Effects

56. The Uprate Project would be compatible with the existing area land uses because Unit 3 is currently in operation and the Uprate Project will not change the existing land use of the site or the area. In addition, there are existing power generation units located to the west and north of Unit 3. The Uprate Project will not have an adverse effect on nearby public recreational or environmentally protected areas.

57. Construction and operation of the Uprate Project will have a benefit to the local and regional economy. Construction of the Project is in two phases. Phase 1 is anticipated to begin in 2009 and Phase 2 in 2011. The anticipated total

workforce during peak construction activities for the Uprate Project could total up to 650 employees in 2009 and 580 employees in 2011. The estimated cost for the Uprate Project is \$250 million for the installation and equipment upgrade requirements. These costs are split between the two construction phases: Phase I has an estimated \$100 million in Project costs and Phase II has an estimated \$150 million in Project costs. The major costs associated with this construction Project include approximately \$200 million for major equipment and materials and approximately \$20 million for labor over the construction period.

58. Employment opportunities and purchases of goods and services to support the Uprate Project are anticipated to occur over the four-year construction period. It is expected that the majority of the construction wages paid for the Uprate Project construction will be spent within Citrus County and the surrounding region. These wages will create additional demands for goods and services. As this money is spent, it will create a multiplier effect within the area, thereby generating economic activity, including additional jobs and earnings.

59. Operation of Unit 3 following the Uprate Project will result in positive impacts to the local economy. The annual local property taxes paid by Progress Energy are expected to increase from \$8.5 million currently to \$10 to 12 million after

Project completion. No increase in employment is expected as a result of the Project, and thus, there will be no increase in local residents. The Crystal River Energy Center is largely self-sufficient and does not require public utilities or services such as water and wastewater from local governments.

60. The Uprate Project would be consistent with the Citrus County Comprehensive Plan, the Withlacoochee Regional Planning Council's Strategic Regional Policy Plan and the State Comprehensive Plan.

Determination of Need

61. The Florida Public Service Commission determined that there is a need for the Uprate Project. The Project will displace higher-cost fossil-fuel electrical generation with low-cost nuclear power generation, "resulting in substantial fuel savings that provide a net benefit to customers." Nuclear energy is the lowest cost energy available on Progress Energy's system. Producing additional electricity with nuclear energy from the Uprate Project would produce electricity at the lowest possible fuel cost. The Uprate Project would also provide a stable source of additional base load power. Nuclear generation is not subject to the same supply interruptions or changes in price volatility that can affect generation with fossil fuels, such as natural gas. The PSC concluded that expanded energy conservation programs cannot displace the Uprate Project.

Progress Energy is already exceeding its PSC-approved numeric energy conservation goals.

Agency Positions and Stipulations and Conditions

62. The Department, the FFWCC, the SWFWMD, the Florida Department of Transportation (FDOT), and the Withlacoochee Regional Planning Council prepared written reports on the Uprate Project, and all recommended its approval.

63. The Department found that it “has reasonable assurance that the Uprate Project would be able to comply with applicable agency standards and criteria as long as compliance with the proposed conditions of certification is achieved.” The FDOT, SWFWMD and FFWCC recommended approval of the Project subject to their proposed conditions, which are included within the Conditions of Certification. The Withlacoochee Regional Planning Council found the Uprate Project to be consistent with the Strategic Regional Policy Plan and recommended approval of the Project.

64. The Florida Department of Community Affairs did not prepare a report on the Project, but indicated in the Prehearing Stipulation it does not object to the certification of the Uprate Project.

65. No state, regional or local agency has recommended denial of certification.

66. Conditions of Certification have been agreed to by Progress Energy and other agencies to ensure the Project's compliance with state and federal regulatory standards.

Public Comments

67. The public was notified of the specific time and place for providing comments to the Administrative Law Judge regarding the Uprate Project. Very few members of the public attended. Only four persons presented comments under oath. Three persons expressed appreciation for Progress Energy's charitable work and services to the local communities. Another person asked for and received information about the Uprate Project.

CONCLUSIONS OF LAW

68. The Division of Administrative Hearings has jurisdiction of the parties to and the subject matter of this proceeding pursuant to Chapter 403, Part II, Florida Statutes, the Florida Electrical Power Plant Siting Act.

69. The Crystal River Unit 3 Uprate Project involves an increase in the steam electric generating capacity of the Crystal River Unit 3. The Power Plant Siting Act, in Section 403.506(1), Florida Statutes, provides that any increase in steam electric generating capacity of an existing non-certified power plant requires certification under the Siting Act. Certification of the Uprate Project results in Unit 3 being brought under the Siting Act.

70. The Florida Public Service Commission has certified the need for the electrical generating facility to be supplied by the Crystal River Unit 3 Uprate Project as required by Sections 403.507(4) and 403.519, Florida Statutes.

71. In accordance with Chapter 120, the Power Plant Siting Act, and Florida Administrative Code Chapter 62-17, notice was given to all persons, entities and parties entitled thereto, as well as to the general public. All necessary and required governmental agencies participated in the certification process. Reports and studies were issued by the Department, SWFWMD, FFWCC, Withlacoochee Regional Planning Council, and FDOT, in accordance with their various statutory duties.

72. Proposed Conditions of Certification have been recommended by the Department and accepted by Progress Energy. The Conditions of Certification incorporate by reference existing permits that apply to Unit 3 as well as other existing generating units at the Crystal River Energy Complex. Applicable provisions of those separate permits that apply to Unit 3 are made a part of the Conditions of Certification and would become enforceable under the Siting Act.

73. The Department issued and would continue to issue separate federally-required permits under the federal Clean Water Act and federal Clean Air Act that apply to Unit 3 as well as the other units at the Complex. Applicable provisions of

those federal permits that apply to Unit 3 are also incorporated into the Conditions of Certification. A violation of any of the permits incorporated into the Conditions of Certification, as they relate to Unit 3, would be subject to enforcement under the Siting Act.

74. Competent substantial evidence presented by Progress Energy demonstrates that Crystal River Unit 3, as modified by the proposed Uprate Project, is entitled to certification pursuant to Section 403.509(3), Florida Statutes. Competent substantial evidence produced at the hearing demonstrates that the construction and operational safeguards for Crystal River Unit 3, as modified by the proposed Uprate Project, is technically sufficient for the welfare and protection of the citizens of Florida, and are reasonable and available methods to achieve that protection. Crystal River Unit 3, with its increased electrical output, would produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. Crystal River Unit 3, as modified by the proposed Uprate Project, will not conflict with the goals, objectives, or policies of the Citrus County Comprehensive Plan.

75. If operated and maintained in accordance with this Recommended Order and the recommended Conditions of Certification, Crystal River Unit 3, as modified by the proposed

Uprate Project, would comply with the applicable non-procedural requirements of all agencies. Certification of Crystal River Unit 3, as modified by the proposed Uprate Project, would fully balance the demand for electrical power plant location and operation with the broad interests of the public.

RECOMMENDATION

Based on the foregoing Findings of Fact and Conclusions of Law, it is

RECOMMENDED that Progress Energy Florida be granted final certification, pursuant to Chapter 403, Part II, Florida Statutes, for Crystal River Unit 3 at the Crystal River Energy Complex, including the addition of 180 megawatts of nuclear-fueled electrical generating capacity through the Uprate Project, as proposed in the Site Certification Application, and subject to the Conditions of Certification attached to the Staff Analysis Report of the Florida Department of Environmental Protection, Exhibit FDEP-2.

DONE AND ENTERED this 5th day of June, 2008, in
Tallahassee, Leon County, Florida.



BRAM D. E. CANTER
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 5th day of June, 2008.

ENDNOTE

^{1/} All references to the Florida Statutes are to the 2007
codification.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will issue the Final Order in this case.

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



**Proposed
Conditions of Certification**

**Progress Energy Florida
Crystal River Energy Complex
Unit 3 Nuclear Power Plant
Unit 4 and Unit 5 Fossil Plant**

PA 77-09A2

February 1, 2008

EXHIBIT B

CONDITIONS OF CERTIFICATION

Modified XX/XX/08

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I. CERTIFICATION CONTROL

A. Pursuant to s. 403.501-518, F.S., the Florida Electrical Power Plant Siting Act, this certification is issued to Progress Energy Florida, Inc (PEF) as owner/operator of Crystal River Energy Complex. The Department recognizes that Nuclear Unit 3 and Fossil Units 4 and 5 are under the control of different divisions of PEF. Unless otherwise specified, PEF shall be responsible for the compliance with the conditions herein. Violation of any conditions specific to Units 3, 4, or 5 shall solely affect the license of the responsible generating units. Under the control of these Conditions of Certification PEF will operate a 1437 MW (nominal) facility consisting of two coal-fired Units No. 4 and No. 5 (and ancillary equipment), and one 1,080 MW (nominal) nuclear plant Unit 3. These units are located on a 4,738 -acre site which is located at Township 17, Range 16, Citrus County, Florida. Existing Units 1 and 2 are not subject to this certification or these conditions.

B. The general and specific conditions contained in these Conditions of Certification, unless specifically amended or modified, are binding upon the licensee and shall apply to the construction and operation of the certified facility. If a conflict should occur between the design criteria of this project and the Conditions of Certification, the Conditions shall prevail unless amended or modified.

II. APPLICABLE RULES

The construction and operation of the certified facility shall be in accordance with all applicable provisions of Florida Statutes and Department and Water Management District rules, including the following regulations: [Southwest Florida WMD: 40D-1, 40D-2, 40D-3, 40D-4, 40D-8, 40D-21, 40D-40] 62-4, 62-17, 62-256, 62-296, 62-297, 62-301, 62-302, 62-531, 62-532, 62-550, 62-555, 62-560, 62-600, 62-601, 62-604, 62-610, 62-620, 62-621, 62-650, 62-699, 62-660, 62-701, 62-762, 62-767, 62-769, and 62-770, Florida Administrative Code (F.A.C.), or their successors as they are renumbered.

III. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department. As used herein:

A. "Application" shall mean the Site Certification Application (SCA) for the certified facility, as supplemented.

B. "DEP" or Department shall mean the Florida Department of Environmental Protection.

C. "DHR" shall mean the Florida Department of State, Division of Historical

Florida Department of Environmental Protection
Proposed Conditions of Certification

PEF CREC Units 3, 4, and 5
PA77-09A2

Resources.

D. "Emergency conditions" shall mean urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity, and necessitating new or replacement gas pipeline, transmission lines, or access facilities.

E. "Facility" shall mean the certified electrical power generation facility and all associated structures, including but not limited to: nuclear steam generating unit, fossil steam boilers, steam turbine generators, transformers, associated transmission lines, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, ash landfill, coal pile and related structures.

F. "Feasible" or "practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.

G. "FFWCC" shall mean the Florida Fish and Wildlife Conservation Commission.

H. "Licensee" means an applicant that has obtained a certification order for the subject project.

I. "NPDES permit" shall mean the federal National Pollutant Discharge Permit System permit issued in accordance with the federal Clean Water Act.

J. "Power plant" shall mean the electric power generating plant and associated structures to be modified or constructed on the certified site, as generally depicted in the Application.

K. "Project" shall mean the Units 3, 4 and 5 electrical power generating facility and all associated facilities.

L. "PSD permit" shall mean the federal Prevention of Significant Deterioration air emissions permit issued in accordance with the federal Clean Air Act.

M. "SWFWMD" shall mean the Southwest Florida Water Management District.

N. "Title V permit" shall mean the federal permit issued in accordance with Title V of the federal Clean Air Act

GENERAL

1. Change in Discharge

~~— All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or any discharge more frequent than, or at a level in excess of that~~

~~authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges or expansion in steam generating capacity will require a submission of a new or supplemental application pursuant to Chapter 403, Florida Statutes.~~

~~2. Noncompliance Notification~~

~~—— If, for any reason, the Licensee does not comply with or may be unable to comply with any limitation specified in this certification, the Licensee shall notify the Southwest District Manager of the Department by telephone during the working day during which said noncompliance occurs and shall confirm this situation in writing within seventy-two (72) hours of first becoming aware of such conditions, supplying the following information:~~

- ~~—— a. A description of the discharge and cause of noncompliance; and~~
- ~~—— b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.~~

~~3. Facilities Operation~~

~~—— The Licensee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the Licensee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department approval.~~

~~4. Adverse Impact~~

~~—— The Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including but not limited to such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.~~

~~5. Right of Entry~~

~~—— The Licensee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:~~

~~_____ a. To enter upon the Licensee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and~~

~~_____ b. To have access to and copy all records required to be kept under the conditions of this certification; and~~

~~_____ c. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants; and~~

~~_____ d. To assess any damage to the environment or violation of ambient standards.~~

~~6. Revocation or Suspension~~

~~_____ This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any General or Special Condition.~~

~~7. Civil and Criminal Liability~~

~~_____ This certification does not relieve the Licensee from civil or criminal responsibility or liability for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes, or regulations thereunder.~~

~~_____ Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the Licensee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.~~

~~8. Property Rights~~

~~_____ The issuance of this certification does not convey any property rights in either real or personal property, tangible or intangible, nor any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. The licensee will obtain title, lease or right of use from the State of Florida, to any sovereign submerged lands occupied by plant, transmission line structures, or appurtenant facilities.~~

~~9. Severability~~

~~_____ The provisions of this certification are severable, and if any provision of this certification, or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.~~

~~10. Definitions~~

~~_____ The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative, by the use of the commonly accepted meaning as determined by the Department.~~

~~11. Review of Site Certification~~

~~_____ The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of this certification or any National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972 for the plant units, the Department shall review all monitoring data that has been submitted to it during the preceding five-year period for the purposes of determining the extent of the Licensee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the Licensee. Such review will be repeated at least every five years thereafter.~~

~~12. Modification of Conditions~~

~~_____ The conditions of this certification may be modified in the following manner:~~

~~_____ a. The Board hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to monitoring, sampling, or groundwater.~~

~~_____ b. All other modifications shall be made in accordance with Section 403.516, F.S.~~

IV. GENERAL CONDITIONS

These General Conditions shall be applicable to all areas of the certified site. Compliance with the General Conditions shall be the joint responsibility of Progress Energy Nuclear Plant (Unit 3) and Progress Energy Fossil Fuel Plant (Units 4 and 5). Any violation of a General Condition shall be a violation by Progress Energy Florida.

A. Facilities Operation

1. The Licensee shall at all times properly operate and maintain the facility and related appurtenances, and systems of treatment and control that are installed and used to achieve compliance with the conditions of this certification, and are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the approval and when required by Department rules.

2. In the event of a prolonged [thirty (30) days or more] equipment malfunction or shutdown of pollution control equipment, facility operation may be allowed to resume and continue to take place under an appropriate Department order, provided that the licensee demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, water quality standards and rules, solid waste rules, domestic wastewater rules and industrial wastewater rules. During such malfunction or shutdown, the operation of the facility shall comply with all other requirements of this certification and all applicable state and federal emission and effluent standards not affected by the malfunction or shutdown.

B. Records Maintained at the Facility

1. These Conditions of Certification or a copy thereof shall be kept at the work site of the approved activity.

2. The licensee shall hold at the facility, or other location designated by this approval, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by this approval, copies of all reports required by this approval, and records of all data used to complete the application for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. The licensee shall provide copies of these records to the Department upon request. If the licensee becomes aware of relevant facts that were not submitted or were incorrect in any report to the Department, such facts or information shall be promptly submitted or corrected.

C. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any regulated pollutant not identified in

the application, or more frequently than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which may result in new, different or increased discharges or pollutants, change in fuel, or expansion in steam generating capacity must be reported by submission of an application for amendment or modification pursuant to Chapter 403.516, F.S.

D. Noncompliance Notification

If, for any reason, the licensee does not comply with or is unable to comply with any limitation specified in this certification, the licensee shall notify the Southwest District Office of the Department by telephone during the working day that said noncompliance occurs. After normal business hours, the licensee shall report any condition that poses a public health threat to the State Warning Point at telephone number (850) 413-9911 or (850) 413-9912. The licensee shall confirm this situation to the DEP District Office in writing within seventy-two (72) hours of becoming aware of such conditions and shall supply the following information:

1. A description of the discharge and cause of noncompliance; and,
2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and,
3. Steps being taken to reduce, eliminate and prevent recurrence of the non-complying event.

E. Adverse Impact

The licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying event.

F. Right of Entry

The licensee shall allow authorized Department personnel, including authorized representatives of the Florida Department of Environmental Protection, Water Management Districts, and/or United States Environmental Protection Agency, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, and recognizing the security that must be maintained at the facility, depending upon the nature of the concern being investigated:

1. To enter upon the licensee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and,
2. To have access to and copy any records required to be kept under the conditions of this certification; and,
3. To inspect and observe the permitted facilities, equipment,

practices, or operations regulated or required under these Conditions to determine compliance with the approved plans, specifications and conditions of this certification; and,

4. To sample or monitor any substances or parameters at any location necessary to assure compliance with these Conditions or Department rules.

G. Enforcement

1. The terms, conditions, requirements, limitations and restrictions set forth in these Conditions of Certification are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514. Any noncompliance with a Condition of Certification or condition of a federally delegated or approved permit constitutes a violation of chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation, or permit revision. The Licensee is placed on notice that the Department will review this approval periodically and may initiate enforcement action for any violation of these conditions.

2. All records, notes, monitoring data and other information relating to the construction or operation of this certified source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the certified source arising under the Florida Statutes or Department rules, except where such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

H. Revocation or Suspension

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any of these Conditions of Certification. This approval is valid only for the specific processes and operations identified within the application and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department. Any enforcement action, including suspension and revocation, shall only affect the certified facilities that are the cause of such action, and other facilities at the Crystal River Energy Complex shall remain unaffected by such action.

I. Civil and Criminal Liability

1. This certification does not relieve the licensee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes, or regulations thereunder.

2. This certification does not relieve the licensee from liability 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, or from penalties therefore; nor does it allow the licensee to cause pollution in contravention of Florida Statutes and

Department rules, unless specifically authorized by an order from the Department.

3. As provided in Subsections 403.087(7), 403.511, and 403.722(5), F.S., the issuance of this certification 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 any infringement of federal, state, or local laws or regulations. This approval is not a waiver of any other Department approval that may be required for other aspects of the total project under federally delegated programs.

4. Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the licensee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.

J. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. The applicant shall obtain title, lease or right of use from the State of Florida, to any sovereign submerged lands utilized by the project.

K. Severability

The provisions of this certification are severable, and if any provision of this certification, or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

L. Review of Site Certification

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of certification the Department will review all monitoring data that has been submitted to it during the preceding five-year period for the purposes of determining the extent of the Licensee's compliance with the conditions of this certification and the environmental impact of this facility. Such review will be repeated at least every five years thereafter.

M. Procedural Rights

Except as specified in Chapter 403, F.S., or Chapter 62-17, F.A.C., no term or condition of certification shall be interpreted to preclude the post-certification exercise by the licensee of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

N. Modification of Conditions

The conditions of this certification may be modified in the following manner:

1. Pursuant to Subsection 403.516(1), Florida Statutes, the Siting

Board hereby delegates to the Secretary of the Department of Environmental Protection the authority to modify, after notice and opportunity for hearing, any conditions herein which would not otherwise require approval from the Siting Board.

2. This certification shall be automatically modified to conform to any subsequent amendments, modifications, or renewals made by the Department under a federally delegated or approved program to any separately issued Prevention of Significant Deterioration (PSD) permit, Title V air permit, or National Pollutant Discharge Elimination System (NPDES) permit for the certified facility. The Permittee shall send each party to the original certification proceedings (at the party's last known address as shown in the record of such proceeding) notice of requests for modifications or renewals of the above listed permits if the request involves a new or modified relief mechanism (e.g., mixing zone, variance, etc.) from standards, a relaxation of conditions included in the permit due to state permitting requirements, or the inclusion of less restrictive air emission limitations in the air permits. The Department shall notify all parties to the certification proceeding of any intent to modify conditions under this section prior to taking final agency action.

3. All other modifications to these conditions shall be made in accordance with Section 403.516, Florida Statutes.

4. Any modification to these conditions shall only affect the units or other facilities that are the subject of the modification request or the Department's proposed order of modification.

O. Transfer of Certification

This certification is transferable only upon Department approval in accordance with Section 403.516, F.S., and Rules 62-17.211(3) and 62-730.300, F.A.C., as applicable. The licensee shall be liable for any noncompliance of the approved activity until the transfer is approved by the Department.

P. Safety

The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The applicable Federal Occupational Safety and Health Standards shall be complied with during construction and operation.

Q. Screening

The Licensee shall provide screening of the site to the extent feasible through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

R. Toxic, Deleterious or Hazardous Materials

1. The Licensee shall not discharge to surface waters wastes which

are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Licensee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Section 62-520.420, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

2. The licensee shall report all spills of materials having potential to significantly pollute surface or ground waters and which are not confined to a building or similar containment structure, by telephone immediately after discovery of such spill. The licensee shall submit a written report within forty-eight hours, excluding weekends, from the original notification. The telephone report shall be submitted by calling the DEP District Office Industrial Wastewater Compliance/Enforcement Section. After normal business hours, the licensee shall contact the State Warning Point by calling (850) 413-9911 or (850) 413-9912. The written report shall include, but not be limited to, a detailed description of how the spill occurred, the name and chemical make-up (include any MSDS sheets) of the substance, the amount spilled, the time and date of the spill, the name and title of the person who first reported the spill, the size and extent of the spill and surface types (impervious, ground, water bodies, etc.) it impacted, the cleanup procedures used and status of completion, and include a map or aerial photograph showing the extent and paths of the material flow. Any deviation from this requirement must receive prior approval from the Department.

S. Noise

Construction noise shall not exceed noise criteria or any applicable requirements of Citrus County.

T. Flood Control Protection

Any new facilities for the certified facilities or associated facilities shall be constructed in such a manner as to comply with the appropriate County flood protection requirements, which may include flood proofing or raising the elevation of the new or expanded facilities above the 100-year flood level. However, existing facilities are not required to be modified to comply with such flood control protection standards.

U. Historical or Archaeological Finds

If historical or archaeological artifacts, such as Indian canoes, are discovered at any time within the certified site, the licensee shall notify the DEP District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399, telephone number (850) 487-2073.

V. Endangered and Threatened Species

Prior to start of construction, the licensee shall survey the portion of the certified site which may be affected by construction for endangered and threatened species of animal and plant life. Plant species listed as endangered or threatened by the federal government and plant species listed as endangered by the state shall be transplanted to an appropriate area if practicable. Gopher tortoises and any commensals on the rare or endangered species list shall be relocated after consultation with the FFWCC. A relocation program, as approved by the FFWCC, shall be followed. Entombment of gopher tortoises shall not be allowed.

W. Dispute Resolution

If a situation arises in which mutual agreement cannot be reached between the Licensee and an agency exercising its regulatory jurisdiction under these conditions, then the matter shall be immediately referred to the Division of Administrative Hearings (DOAH) for disposition in accordance with the provisions of Chapter 120, F.S.

X. Laboratories And Quality Assurance

1. The licensee shall ensure that all laboratory analytical data submitted to the Department, as required by this Certification, are from a laboratory which has a currently valid and Department approved Comprehensive Quality Assurance Plan (CompQAP) or a CompQAP pending approval for all parameters being reported, as required by Chapter 62-160, F.A.C.

2. The licensee shall ensure that all samples required pursuant to this certification are taken by an appropriately trained technician following EPA and Department approved sampling procedures and chain-of-custody requirements in accordance with Rule 62-160, F.A.C. All chain-of-custody records shall be retained on-site for at least three (3) years and made available to the Department immediately upon request.

3. Records of monitoring information shall include:

- a) the date, exact place, and time of sampling or measurements;
- b) the person responsible for performing the sampling or measurements;
- c) the dates analyses were performed;
- d) the person responsible for performing the analyses;
- e) the analytical techniques or methods used; and,
- f) the results of such analyses.

Y. Procedures For Post-Certification Submittals

1. The licensee shall provide within 90 days after certification a complete summary of those submittals identified in the Conditions of Certification where due-dates for information required of the licensee are identified. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the Siting Coordination Office and any affected agency or agency subunit to whom the submittal is required to be provided, in a sortable spreadsheet, via CD and hard copy, in the format identified below or equivalent. (62-17.191, F.A.C.)

<u>Condition Number</u>	<u>Requirement and timeframe</u>	<u>Due Date</u>	<u>Name of Agency or agency subunit to whom the submittal is required to be provided</u>

2. Purpose of Submittals: Conditions of Certification which provide for the post-certification submittal of information to DEP or other agencies by the licensee are for the purpose of facilitating monitoring by the Department of the effects arising from the certified facilities. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with the conditions of certification, without any further agency action.

3. Filings: All post-certification submittals of information by the licensee or copies of applications for separate federal permits which are to be issued by State agencies are to be filed with DEP Siting Office. Copies of each submittal shall also be simultaneously copied to any other agency indicated in the specific conditions requiring the post-certification submittals.

4. Completeness: The DEP shall promptly review each post-certification submittal for completeness. This review shall include consultation with the other agencies receiving the post-certification submittal. For the purposes of this condition, completeness shall mean that the information submitted is both complete and sufficient. If the submittal is found to be incomplete, the licensee shall be so notified. Failure to issue such a notice within forty-five (45) days after filing of the submittal shall constitute a finding of completeness. (62-17.191, F.A.C.)

5. Interagency Meetings: Within sixty (60) days of the filing of a
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complete post-certification submittal, DEP may conduct an interagency meeting with other agencies which received copies of the submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether reasonable assurance of compliance with the conditions of certification has been provided. Failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these conditions nor to delay the time frames for review established by these conditions.

6. Reasonable Assurance of Compliance: Within ninety (90) days of the filing of a complete post-certification submittal, unless another date is specified herein, DEP shall give written notification to the licensee and the agencies to which the post-certification information was submitted of its determination whether there is reasonable assurance of compliance with the conditions of certification. If it is determined that reasonable assurance has not been provided, the licensee shall be notified with particularity and possible corrective measures suggested. Failure to notify the licensee in writing within ninety (90) days of receipt of a complete post-certification submittal shall constitute a determination of reasonable assurance of compliance.

Z. Potable Water Supply System

The potable water supply system shall be designed and operated in conformance with Chapter 17-22, FAC. Information as required in 17-22.05 shall be submitted to the Department prior to construction and operation. The operator of the potable water supply system shall be certified in accordance with Chapter 17-23, FAC. Potable water for Unit 3 shall continue to be provided by the separate potable water treatment system operated by Units 1 and 2.

V. CONSTRUCTION

A. Standards and Review of Plans

1. All construction at the certified facility shall be pursuant to the design standards presented in the application or amended application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. Specific Southwest DEP District Office acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations, and these conditions prior to initiation of construction of any: industrial waste treatment facility; domestic waste treatment facility; potable water treatment and supply system; ground water monitoring system, storm water runoff system; solid waste disposal area; and hazardous or toxic handling facility or area. The Licensee shall present specific plans for these facilities for review by the DEP Southwest District Office at least ninety (90) days prior to construction of those portions of the facility for which the plans are then being submitted, unless other time limits are specified in the following conditions herein. Review and approval or disapproval shall be accomplished in accordance with Chapter 120, F.S., or these conditions of certification as applicable.

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The licensee shall not proceed with construction without a written authorization from the Department.

2. The Department must be notified in writing and prior written approval obtained for any material change, modification, or revision to be made to the project during construction which is in conflict with these conditions of certification. If there is any material change, modification, or revision made to a project approved by the Department without this prior written approval, the project will be considered to have been constructed without departmental approval, the construction will not be cleared for service, and the construction will be considered a violation of the conditions of certification.

3. Ninety (90) days prior to the anticipated date of first operation, the Licensee shall provide the Southwest District and the Siting coordination Office of the Department with an itemized list of any changes made to the facility design and operation plans that would affect a change in discharge as referenced in Condition IV.C. since the time of the approval of these conditions. This pre-operational review of the final design and operation shall demonstrate continued compliance with Department rules and standards.

4. Final drainage plans illustrating any new or modified stormwater treatment facilities and conveyances for construction phases of the certified facility site shall be submitted to the DEP Southwest District Manager and the SWFWMD as applicable for review and approval prior to construction of any such conveyance or facility. The Department shall indicate its approval or disapproval within 60 days of the submittal. Analysis report of the produced ground samples shall be submitted 30 days before surface water discharge begins.

B. Control Measures

1. During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to limit the suspended solids to 50 mg/l or less at the POD during rainfall periods not less than the 10-year, 24-hour rainfall, and to prevent an increase in turbidity to more than 50 Jackson Turbidity Units above background in waters of the State. Control measures shall consist at the minimum, of filters, sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5, after opportunity for reasonable mixing as defined in II.A.8.

2. Any open burning in connection with initial land clearing shall be in accordance with Chapter 62-256, F.A.C., Chapter 5I-2, F.A.C., Uniform Fire Code Section 33.101 Addendum, and any other applicable County regulation. Any burning of construction-generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., shall be reviewed by the DEP Southwest District office in conjunction with the Division of Forestry and any other county

regulations that may apply. Burning shall not occur if not approved by the appropriate agency or if the Department or the Division of Forestry has issued a ban on burning due to fire safety conditions or due to air pollution conditions.

3. Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency. The sewage treatment plant shall be operated in accordance with Chapters 17-3, 17-16, and 17-19, F.A.C.

4. Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 62-701, F.A.C.

5. Construction noise shall not exceed noise criteria or any applicable requirements of Citrus County. To mitigate the effects of noise produced by any steam blowout of steam boiler tubes, the licensee shall conduct reasonable public awareness campaigns prior to such activities to forewarn the public that may be affected by the noise of the estimated time and duration of the noise.

6. The licensee shall employ proper odor and dust control techniques to minimize odor and fugitive dust emissions. The applicant shall employ control techniques sufficient to prevent nuisance conditions which interfere with enjoyment of residents of adjoining property.

7. Directly associated transmission lines from the facility electric switchyard to existing transmission lines shall be maintained in accordance with the application and the appropriate state and federal regulations concerning use of herbicides. The Licensee shall notify the Department of the type of herbicides to be used at least 60 days prior to their first use.

8. The licensee shall develop the site so as to retain the buffer of natural vegetation as described in the Units 4 and 5 application and in Condition IV.Q. Screening.

9. Dewatering operations during construction shall be carried out in accordance with Rule 62-621.300(2), F.A.C.

C. Environmental Control Program

An environmental control program shall be established under the supervision of a Florida registered professional engineer or other qualified person to assure that all construction activities conform to applicable environmental regulations and the applicable conditions of certification. If a violation of standards, harmful effects or irreversible environmental damage not anticipated by the application or the evidence presented at the certification hearing are detected during construction, the Licensee shall notify the DEP Siting Office and Southwest District Office as required by Condition IV. D., Noncompliance Notification.

D. Reporting

Notice of commencement of construction shall be submitted to the Siting Coordination Office and the DEP Southwest District Office within fifteen (15) days of initiation. Starting three (3) months after construction commences, a quarterly construction status report shall be submitted to the DEP Southwest District Office. The report shall be a short narrative describing the progress of construction.

E. Construction in Waters of the State

No construction on sovereignty submerged lands shall commence without obtaining lease or title from the Department of Environmental Protection Natural Resources. Construction of intake and discharge structures should be done in a manner to minimize turbidity. Sheet piles or turbidity screens should be used if necessary to prevent turbidity in excess of 50 JTU above background beyond 150 meters from the POD and/or construction site.

F. Transformer and Electric Switching Gear

The foundations for any new or modified transformers, capacitors, and switching gear necessary for Crystal River Units 3, 4 and 5 to connect to the existing transmission system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

SPECIAL

VI. UNIT 4 & UNIT 5 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 4 and Unit 5. Compliance with these Specific Conditions shall be the responsibility of Progress Energy (Fossil).

I.A. Air

The construction and operation of the Units No. 4 and 5 at the Crystal River steam electric plant site shall be in accordance with all applicable provisions of the Chapters 62-210 through 62-297, and 62-702, Florida Administrative Code.

Title V Air Operation Permit 0170004-015-AV, Air Construction Permits 0170004-013-AC and 0170004-014--AC (including subsequent modifications), and PSD permit PSD-FL-383 (including subsequent modifications) are incorporated by reference herein as part of this Certification and attached as Appendix A through Appendix D.

The provisions of the above shall be conditions of this certification. The licensee shall comply with the substantive provisions and limitations set forth in Title V Air Operation Permit Number 0170004-015-AV, Air Construction Permits 017004-013-AC and 017004-014-AC, and PSD permit PSD-FL-383 as part of these Conditions of

Certification, and as those provisions may be modified, amended, or renewed in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

In addition to the foregoing, the Licensee shall comply with the following specific conditions of certification: Note that Sections ~~B and C~~ 2 and 3 below (in italics) will be automatically deleted once a Title V permit is issued signifying the successful start-up and operation of the flue gas desulfurization system:

A.1. Reporting

4-a) For each unit, stack monitoring, fuel usage and fuel analysis data shall be reported to the Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7, and in accordance with Section 17-2.08, FAC.

2-b) Ambient air monitoring data shall be reported to the Department quarterly commencing on the date of certification by the last day of the month following the quarterly reporting period utilizing the SAROAD or other format approved by the Department in writing.

3-c) Beginning one month after certification the licensee shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

B.2. Coal Characteristics and Contracts

Before approval can be granted by the Department for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the licensee must submit to the Department copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department in its evaluation of the adequacy of the control devices. Also, the licensee must demonstrate the ability to acquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal contracts must be for a period of at least five (5) years from the date of start-up of the boiler.

C.3. Coal Information

As an alternative to the submittal of contracts for purchase of coal under condition E above, the licensee may submit the following information:

4-a) *The name of the coal supplier;*

- ~~2.b)~~ *The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;*
- ~~3.c)~~ *The location of the coal deposits covered by the contract (including mine name and seam);*
- ~~4.d)~~ *The date by which the first delivery of coal will be made;*
- ~~5.e)~~ *The duration of the contract; and*
- ~~6.f)~~ *An opinion of counsel for the licensee that the contracts are legally binding.*

D.4. Natural Gas

Natural Gas may be used as a startup and low-load flame stabilization fuel in Unit 4 and Unit 5.

II.B. Water Discharges

Any discharges into any waters of the State during construction and operation of the Units 4 & 5 shall be in accordance with all applicable provisions of Chapter 17-3, Florida Administrative Code and 40 CFR 423, *Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category* and with NPDES permit no. FL 0036366-006-IW1S/NR (attached as Appendix F) as well as any subsequent modifications, amendments and/or renewals. Also, the Licensee shall comply with the following conditions of certification:

A.1. Plant Effluents and Receiving Body of Water

For discharges made from the power plant the following conditions would apply:

a) ~~1.~~ Receiving Body of Water (RBW)

The receiving body of water will be determined by the Department to be those waters affected which are considered to be waters of the State within the definition of Chapter 403, Florida Statutes.

b) ~~2.~~ Point of Discharge (POD)

The point of discharge will be determined by the Department to be where the effluent physically enters the waters of the State.

c) ~~3.~~ Thermal Mixing Zone

The zone of thermal mixing for cooling tower blowdown shall not extend beyond the western end of the north bank of the existing discharge canal. During discharge, the blowdown from the cooling tower for Units No. 4 & 5 shall be withdrawn at the point of lowest temperature of the recirculating cooling water prior to the addition of makeup water.

d) 4. Chemical Wastes and Boiler Blowdown

All discharges of low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including preheater and fireside wash) and boiler blowdown shall comply with Chapter 17-3. If violations of Chapter 17-3 occur, corrective action shall be taken. These wastewaters shall be discharged to an adequately sized and constructed percolation pond.

e) 5. Coal Pile and Ash Landfill Runoff

Coal pile runoff and ash landfill runoff from less than 10-year 24-hour rainfall shall be treated if required by Special Condition ~~III.H.~~ IV.F.8. and discharged to an adequately sized and constructed percolation ditch system.

f) 6. Cooling Tower Blowdown

The cooling tower blowdown shall contain no detectable amounts of materials added for corrosion inhibition, unless prior approval for use of such material has been granted by the Department upon demonstration that the discharge is not toxic to aquatic life, does not contain priority pollutants and will not result in pollutant concentrations in excess of water quality standards.

g) 7. Chlorine

The quantity of free available chlorine discharged in the blowdown from the cooling tower shall not exceed 0.5 mg/l at any one time and shall not exceed 0.2 mg/l as an average. Neither free available chlorine nor total residual chlorine may be discharged from either unit for more than two hours in any one day and Units 4 or 5 may not discharge chlorine while any other unit is discharging chlorine.

h) 8. pH

The pH of all discharges shall be such that the pH of water in the discharge canal shall be within the range of 6.0 to 8.5, at a distance of 150 meters from the POD into the canal.

i) 9. Polychlorinated Biphenyl Compounds

There shall be no discharge of polychlorinated biphenyl compounds.

B.C. Water Monitoring Programs

The Licensee shall monitor and report to the Department the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approval by the Department. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation, and may be modified in accordance with Condition N of the General Conditions of Certification.

1. Chemical Monitoring

The following parameters shall be monitored as shown during discharge commencing with the start of commercial operation of the first unit and reported quarterly to the Department:

Parameter	Location	Sample Type	Frequency
Flow, Groundwater	Well field Pipeline	Recorder	Totalizer
Flow, Discharge	C.T. Outfall*	Recorder	Totalizer
Conductivity	C.T. Outfall	Recorder	Continuous
pH	C.T. Outfall	Grab**	Daily
Temperature	C.T. Outfall	Recorder	Continuous
TDS	C.T. Outfall	Grab	Weekly
Total Residual Oxidants	C.T. Outfall	Recorder	Continuous

* Cooling Tower Outfall Pipe

** Representative Sample

2. Groundwater Monitoring

a) The groundwater levels shall be monitored continuously at wells as approved by Southwest Florida Water Management District. Chemical analyses shall be made on samples from all monitored wells identified in Condition III.F. below. The location, frequency and selected chemical analyses shall be as given in Condition III.F.

b) The groundwater monitoring program shall be implemented at least one year prior to operation of Crystal River No. 4. The chemical analyses shall be in accord with the latest edition of *Standard Methods for the Analysis of Water and Wastewater*. The data shall be submitted within 30 days of collection/analysis to the Southwest Florida Water Management District and to the DER Southwest District Office.

c) Conductivity and heavy metals shall be monitored in wells around all ash disposal sites and coal piles.

C.D. Percolation Pond Monitoring Requirements

1. Upon beginning operation of the coal pile runoff and leachate treatment system, the licensee shall sample and analyze the wastewater in the percolation pond for the following parameters on a quarterly basis: pH, specific conductance, total recoverable arsenic, total recoverable barium, total chlorides, total recoverable iron, total recoverable magnesium, total recoverable sodium, total dissolved solids, total recoverable vanadium, and total recoverable zinc. Results shall be submitted in accordance with Condition ~~II.C.VI~~.D.3. below.

2. If the appropriate primary ground water quality criteria specified in Chapter 62-520, Florida Administrative Code (F.A.C.) is not met in the percolation pond

for the parameters listed in Condition ~~H.C.4~~VI.D.1., the Department shall re-evaluate the licensee's current monitoring requirements and may require the licensee to submit a proposed ground water monitoring plan in accordance with Rule 62-522.600, F.A.C., for this percolation pond system.

3. Effluent monitoring test results shall be submitted on Part A of DEP Form 62-620.910(10) (Attachment 3). Results shall be submitted with the DMR for each month listed 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

4. The permittee shall make copies of the attached DMR form(s) and shall submit the original completed DMR form(s) to the Siting Office and a copy to the Department's SWD, Industrial Wastewater Program.

D.E. FGD Scrubber Blowdown

FGD scrubber blowdown wastewater shall be discharged to treatment systems outside of the Unit 4 & 5 Certified area. Any such receiving treatment system shall be permitted in accordance with all applicable requirements.

III.F. Groundwater

A.1. General

The use of groundwater from a linear well field for plant service water for Units 4 and 5 shall be minimized to the greatest extent practicable, but in no case shall exceed 3 mgd on a maximum daily basis from any new wells or 1.0 mgd on an average annual basis.

B.2. Well Criteria

The submission of well logs and test results and location, design and construction of wells to provide plant service water shall be in accordance with applicable rules of the Department of Environmental Regulation and the Southwest Florida Water Management District (SWFWMD). Total water use per month shall be reported monthly to SWFWMD commencing with the start of construction.

C.3. Well Withdrawal Limits

PEF is authorized to make a combined average annual withdrawal of 1,000,000 gallons of water per day with a maximum combined withdrawal rate not to exceed 3,000,000 gallons during a single day. Withdrawals may be made from a linear well field consisting of up to seven (7) wells whose locations are prescribed in the table below.

WITHDRAWAL POINT			GALLONS PER DAY	
PEF Well No.	LATITUDE	LONGITUDE	MAXIMUM	AVERAGE
PW-1	28 57 36	82 37 48	756,000	459,375
PW-2	28 37 36	82 37 42	756,000	459,375
PW-3	28 57 36	82 37 36	756,000	459,375
PW-4	28 57 36	82 37 30	756,000	459,375
PW-5	28 57 36	82 37 24	756,000	*
PW-6	28 57 36	82 37 18	756,000	*
PW-7	28 57 36	82 37 13	756,000	*
Combined Maximum:			3,000,000	1,000,000

* Wells PW-5, PW-6, and PW-7 are not in current use and shall only be used in emergency situations. If more than the existing four wells are placed into operation, then the average withdrawal rate limit for each well will default to 262,500 GPD.

D.4. Water Use Restriction

Said water is restricted to uses other than main steam condensing. Any change in the use of said water will require a modification of this condition.

E.5. Emergency Shortages

In the event an emergency water shortage should be declared pursuant to Section 373.175 or 373.246, F.S., by Southwest Florida Water Management District, for an area including the location of these withdrawal points, the Department, pursuant to Section 403.516, F.S., may alter, modify, or declare to be inactive, all or parts of Special Condition III. ~~A-GF.1-7~~. An authorized Water Management District representative, at any reasonable time, may enter the property to inspect the facilities.

F.6. Monitoring and Reporting

PEF shall, within the time limits hereinafter set forth, complete the following items, and if it fails to complete them by the specified time, then Special Condition III. ~~A-GF. 1-7~~ shall automatically become null and void.

4.a) PEF shall install and continuously maintain totalizing flow measurement devices on withdrawal point(s) as listed. Said devices shall have and maintain an accuracy within five percent of the actual flow under the installed operating conditions.

Licensee shall notify the District upon completion of new installation prior to commencement of withdrawal.

Alternative flow measuring systems may be substituted upon written approval by the Director of the Regulatory Division of SWFWMD in advance of installation.

2-b) PEF shall submit to SWFWMD, of forms available from the District, a record of pumpage for each meter installed in F. 1. above. Said pumpage shall be provided on a monthly basis. Reports will be sent to:

Chief, Processing and Records
Southwest Florida Water Management District
5060 U.S. Highway 41, South
Brooksville, Florida 33512

3-c) PEF shall maintain and operate continuous water level recorders on wells MZ-2I, MZ-2D, and PW-7 located at Progress Energy Florida pump test site in Citrus County, Florida. PEF shall manually measure water levels monthly in wells MZ-2S, MZ-1S, MZ-1I and MZ-1D. Detailed hydrographs of water level fluctuations shall be constructed with the data collected from the water level recorders and shall be submitted to SWFWMD monthly.

4-d) Water quality analysis shall be performed of water withdrawn from each production well and from wells MZ-2I and MZ-2D. The water samples collected from each of the referenced wells shall be collected immediately after removal by pumping of a quantity of water equal to two casing volumes. The water quality analyses shall be performed monthly during the first year of operation, four times (January, May, September and December) during the second year and twice each year (May and September) thereafter. Results shall be submitted to SWFWMD by the fifteenth (15th) day of the month following the month during which such analyses were performed. Testing for the following constituents is required:

Calcium	Magnesium	Sodium
Potassium	Bicarbonate	Sulfate
Chloride	Nitrate	Total Dissolved Solids
Specific Conductance	Gross Alpha Radiation	Total Phosphate
Radium 226 (only if gross Alpha is greater than 15 pci/l)		

5-e) In the event that SWFWMD determines there is a significant change in the water quality, the Department pursuant to Section 403.516, F.S., may require the Licensee to reduce or cease withdrawal from these groundwater sources.

G-7. Minimum Water Level Restrictions

The Department and SWFWMD may, at a future date pursuant to Section 403.516, F.S., establish a minimum water level in the aquifer or aquifers hydrologically associated with these withdrawals, which may require PEF to reduce or cease withdrawal from these groundwater sources at times when water levels fall below these minimums.

H-8. Leachate

4-a) Compliance

Leachate from the ash landfill, coal storage piles, plant drains collection pond, canal retention system and ditches shall not contaminate waters of the State (including both surface and groundwaters) in excess of the limitations of Chapter 17-3, FAC.

2.b) Monitoring

A monitoring well system shall be used, commencing with operation, to determine whether or not leachate from the plant drains collection pond, canals, ditches, the ash landfill and coal pile is reaching the groundwater in violation of Chapter 17-3. The Licensee shall keep a monthly record of the monitoring results and shall notify the Southwest district Office of the Department and the Southwest Florida Water Management District when said measurements exceed water quality standards. A quarterly summary of the results of monitoring shall be provided to the Southwest District Manager. The proposed monitoring well system shall be submitted to the Department for approval prior to installation.

3.c) Corrective Action

When the leachate monitoring system indicates to the Department violation of the groundwater quality standards of Chapter 17-3, FAC, the appropriate ditches, pond, ash landfill, or coal pile shall be sealed, relocated or closed, or the operation of the affected facility shall be altered in such a manner as to assure the Department that no significant contamination of the groundwater will occur.

IV. Control Measures During Construction

A. Stormwater Runoff

~~During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to limit the suspended solids to 50 mg/l or less at the POD during rainfall periods not less than the 10-year, 24-hour rainfall, and to prevent an increase in turbidity to more than 50 Jackson Turbidity Units above background in waters of the State.~~

~~Control measures shall consist at the minimum, of filters, sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5, after opportunity for reasonable mixing as defined in II.A.8.~~

B. Sanitary Wastes

~~Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency. The sewage treatment plant shall be operated in accordance with Chapters 17-3, 17-16, and 17-19, FAC.~~

C. Environmental Control Program

~~_____ An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.~~

~~_____ The Licensee shall notify the Department if unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, shall immediately cease work and shall provide an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage, and to prevent reoccurrence.~~

V.G. Solid Wastes

~~_____ A. Solid Wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapter 62-701, FAC.~~

~~_____ B. Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC., no additional permits shall be required, but the Division of Forestry shall be notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.~~

G. No later than December 31, 2008 or 180 days prior to the initial operation of Unit 4 and 5 FGD scrubbers (whichever occurs first), the licensee shall submit a site-wide Coal Combustion By-Product (CCP)/Solid Waste Materials Management Plan that addresses operations of the fossil generating units to the Department's SWD Office and Siting Office for review and approval. The plan shall, at a minimum, include the following information:

1. descriptions and procedures for all applicable processes for on-site storage practices and management of CCPs, solid wastes and industrial by-products at the site.
2. plans or methods to minimize waste streams, and maximize beneficial use opportunities of CCPs;
3. methods for preventing or minimizing the release of contaminants to the environment, including (as applicable) leachate collection and control methods that meet the requirements of Chapter 62-701, F.A.C.;
4. certification for the above information, as appropriate, by a Professional Engineer registered in the state of Florida.

The Department shall indicate its approval or disapproval of the submitted plans, drawings, maps, analyses and contingency plans within 90 days of the originally submitted information. In the event that the Department requires additional information for the licensee to complete, and the Department to approve the CCP/Solid Waste Materials Management Plan, the Department shall make a written request to the

licensee for additional information no later than 30 days after receipt of the originally submitted information.

~~VI. Operation Safeguards~~

~~— The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions.~~

~~VII. Screening~~

~~— The Licensee shall provide screening of the site through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.~~

~~VIII. Potable Water Supply System~~

~~— The potable water supply system shall be designed and operated in conformance with Chapter 17-22, FAC. Information as required in 17-22.05 shall be submitted to the Department prior to construction and operation. The operator of the potable water supply system shall be certified in accordance with Chapter 17-23, FAC.~~

~~IX. Transformer and Electric Switching Gear~~

~~— The foundations for transformers, capacitors, and switching gear necessary for Crystal River Units 4 and 5 to the existing distribution system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.~~

~~X. Toxic, Deleterious, or Hazardous Materials~~

~~— The spill of any toxic, deleterious, or hazardous materials shall be reported in the manner specified by General Condition 2.~~

~~XI. Construction in Waters of the State~~

~~— No construction on sovereignty submerged lands shall commence without obtaining lease or title from the Department of Natural Resources.~~

~~— Construction of intake and discharge structures should be done in a manner to minimize turbidity. Sheet piles or turbidity screens should be used if necessary to prevent turbidity in excess of 50 JTU above background beyond 150 meters from the POD and/or construction site.~~

XII.H. Ash Landfill and Coal Piles

A.1. Ash Landfill

a) PEF shall designate a portion of the site as a temporary ash landfill. Associated with the temporary landfill shall be certain sites for the testing and monitoring of leachates and ash pile liners.

b) Adequate geophysical testing shall be conducted to determine if solution cavities are present under the landfill area. If such cavities are located, such cavities shall be sealed off and stabilized.

c) The proposed ash landfill area shall be monitored and studied pursuant to a detailed leachate testing and monitoring program to be submitted by PEF to the Department within 30 days of certification for review and approval, rejection, or modification within 60 days thereafter. The detailed leachate testing and monitoring program shall be consistent with the conceptual leachate monitoring program attached and incorporated herein as Attachment 2.

d) After approval of the program by the Department, PEF shall conduct the approved testing and monitoring program under the supervision of the Department. Results of the program shall be submitted to the Department for its review and consideration on a monthly basis.

e) The results of the program will be used by the Department in determining whether PEF has affirmatively demonstrated that Florida Water Quality Standards (62-520 and 62-550, F.A.C.) will not be violated in determining the zone of discharge and in determining the need for a liner.

f) If the Department determines that PEF has failed to affirmatively demonstrate that Florida Water Quality Standards (62-520 and 62-550, F.A.C.) will not be violated, PEF shall present to the Department, within 90 days of such determination, a plan of correction (which may include, if appropriate, a semi-permeable liner) for review and approval by the Department and for timely implementation by PEF, or PEF shall place an impermeable liner under the final ash landfill site and shall remove all ash from the temporary landfill site and place it on the lined landfill location.

g) The final cover shall be in compliance with Chapter 62-701, F.A.C., and at least 12" of clay or sufficient suitable liner material shall be placed on the top and exposed sides of each finished landfill cell. Sufficient topsoil to support vegetation shall be placed over the top and side clay liner. The top and exposed sides of the ash landfill shall be vegetated to control erosion.

2. Ash Relocation Due to Installation of New Access Road to Support the Units 4 & 5 Clean Air Project

a) Prior to commencement of modifications/additions to the existing access road located along the south and west perimeters of the ash storage area the Licensee shall submit the following items to the DEP SWD Office and Siting Office :

i. 4-a figure, aerial photograph or plan sheet identifying the area where the ash to be removed will be re-located;

ii. ~~2-~~ plan sheets of existing (pre-construction) conditions and final contours of the ash landfill affected by the access road installation; and

iii. ~~3-~~ a figure, aerial photograph or plan sheet showing the location and details of any collapsed surface cavities/sinkholes found on the site relative to the ash landfill and proposed access road project.

b) The working face slopes of the relocated ash shall be no steeper than 4H:1V, unless prior approval from the Department's SWD Solid Waste Section and the Siting Office for an alternative slope is obtained.

c) The filtered stormwater drainage downslope of the working face shall not discharge outside the contact stormwater or Industrial Wastewater system.

d) Within 90 days following completion of the access road and restoration of the final cover on the ash landfill in the affected portions, the Licensee shall submit to the Department's SWD Office and Siting Office the following information:

i. ~~4-~~ a final survey of the affected portions of the closed ash landfill that demonstrates that the slopes are no steeper than 4H:1V;

ii. ~~2-~~ documentation that the clay cover, if used, is no less than 12 inches thick;

iii. ~~3-~~ hydraulic conductivity testing results on the constructed clay layer, if used, (5 tests for the first acre, then 1 test/acre/lift for every other acre). Testing should be carried out in accordance with ASTM Method D5084 or equivalent; and

iv. ~~4-~~ certification for the above information by a Professional Engineer registered in the state of Florida.

v. ~~5-~~ A geosynthetic clay liner (GCL) or other alternative liner system may be used; however, prior to the installation of any alternative liner system, the Licensee shall submit a complete proposed plan to the Department's SWD Solid Waste Section and Siting Office for review and approval.

The plan shall, at a minimum, include specifications for the Construction Quality Assurance Plan and drawings showing the location of the liner cover, soil cover for the liner, and any other relevant information that may be applicable for the type of alternative liner system being proposed.

The Department shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that the Department requires additional information for the licensee to complete, and the Department to approve the GCL or alternative liner system, the Department shall make a written request to the licensee for additional information no later than 30 days after receipt of the originally submitted information.

B.3. Coal Pile

a) Prior to initial operation of the Unit 4 and 5 FGD scrubber systems, the licensee shall install an impervious liner system beneath the Unit 4 and 5 coal pile storage area and associated stormwater runoff/leachate collection, storage, and treatment ponds.

b) The liner system shall be designed and of sufficient impervious material to provide for a hydraulic conductivity equal to, or less than 10-7 cm/sec.

c) Prior to initial construction of each liner installation, the licensee shall submit a complete proposed plan of the liner system to the Department's SWD Solid Waste Section and the Siting Office for review and approval. Each liner installation plan shall, at a minimum, include the following information:

i. 4. design drawings, calculations, and specifications of the proposed liner system;

ii. 2- he Construction Quality Assurance Plan (CQA);

iii. 3- slope stability calculations that demonstrate that the proposed slope will be stable with a 1.5 factor of safety;

iv. 4- anchoring details for the liner systems;

v. 5- permeability (hydraulic conductivity) and specifications for the "crusher run" material (or for alternate material if used);

vi. 6- procedures for ensuring that the clay liners will not be damaged from future coal removal operations;

vii. 7- the thickness (and unit weight) of material that will be placed above the GCL on the slopes and specification of the slope of the GCL sub-grade;

viii. 8- piping details that show how the coal pile runoff water will be discharged from the coal pile runoff ponds to the coal pile runoff settling ponds;

ix. 9- any other relevant information that may be applicable for the type of alternative liner system being proposed; and

x. 10- certification for the above information by a Professional Engineer registered in the state of Florida.

The Department shall indicate its approval or disapproval of a submitted liner system plan within 90 days of the originally submitted information. In the event that the Department requires additional information for the licensee to complete, and the Department to approve the liner system, the Department shall make a written request to

the licensee for additional information no later than 30 days after receipt of the originally submitted information.

d) Handling and monitoring of the coal pile and associated wastes shall be in accordance with the site-wide Coal Combustion By-Product (CCP)/Solid Waste Materials Management Plan for the fossil units required by Special Condition V. Solid Wastes.

XIII. Floodproofing

~~_____ The power generation equipment and other facilities vital to the operation of the plant shall be constructed in such a manner that water elevations at the 100 year flood will not cause damage to the equipment or necessitate plant shutdown.~~

VII. UNIT 3 SPECIFIC CONDITIONS

The following Specific Conditions shall apply only to Unit 3. Compliance with these Specific Conditions shall be the responsibility of the Progress Energy (Nuclear).

A. Air

The construction and operation of the Unit No. 3 nuclear plant site shall be in accordance with all applicable provisions of Chapters 62-210 through 62-297, and 62-702, Florida Administrative Code.

Title V Air Operation Permit 0170004-015-AV, and PSD-FL-392 (017004-018-AC) including subsequent modifications are incorporated by reference herein as part of this Certification and attached as Appendix A and Appendix E.

The provisions of the above shall be conditions of this certification. The licensee shall comply with the substantive provisions and limitations set forth in Title V Air Operation Permit Number 0170004-015-AV and Air Construction Permit PSD-FL-392 as part of these Conditions of Certification, and as those provisions may be modified, amended, or renewed in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

B. Water Discharges

Any discharges into any waters of the State during construction and operation of Unit 3 shall be in accordance with all applicable provisions of Chapter 17-3, Florida Administrative Code and 40 CFR 423, *Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category* and with NPDES permit no. FL0000159 (attached as Appendix G) as well as any subsequent modifications, amendments and/or renewals. A copy of all subsequent renewal and modification applications shall also be sent to the St. Martins Marsh & Big Bend Seagrass Aquatic Preserve of the Office of Coastal and Aquatic Managed Areas, and to the Florida Fish and Wildlife Conservation Commission, Office of Policy and Stakeholder Coordination.

C. Groundwater – SWFWMD

No groundwater use by Unit 3 is authorized by these Conditions of Certification. Potable water demand for Unit 3 shall continue to be met by water use authorized under Water Use Permit (WUP) No. 2004695.004 issued by the Southwest Florida Water Management District. (Attached as Appendix H) WUP No. 2004695.004 authorizes 1,000,000 gallons per day (annual average) and 1,500,000 gpd (peak month) for boiler makeup, pollution control, and potable water needs at Units 1, 2 and 3. PEF shall abide by the conditions of WUP No. 2004695.004 and any modification or renewal thereof for the continued authorized use of groundwater in the operation of Unit 3. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions, where it is determined that Unit 3 is the cause, shall be a violation of these Conditions of Certification.

D. Groundwater – FDEP

No groundwater discharge by Unit 3 is authorized by these Conditions of Certification. IWW Permit FLA016960 (attached as Appendix I) issued by the FDEP authorizes the discharge of industrial waste water from Unit 3 to a common percolation pond system. PEF shall abide by the conditions of IWW FLA 016960 and any modification or renewal thereof for the continued authorized discharge of industrial waste water to ground water by the operation of Unit 3. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions, where it is determined that Unit 3 is the cause, shall be a violation of these Conditions of Certification.

E. Environmental Resource Review

1. At least 90 days prior to construction of the South Cooling Tower, the licensee shall provide to the DEP SWD office all information necessary for a complete Environmental Resource Permit application including the engineering drawings and supporting documentation necessary to demonstrate that the stormwater runoff from the proposed project will be treated and attenuated in accordance with Rules 40D-4, 40D-41 and 40D-42, F.A.C. and a Wetland Mitigation Plan if applicable. The drawings and documentation shall be signed, sealed and dated by a professional engineer registered in the State of Florida.

2. Within 60 days following certification, and prior to construction of any construction laydown and parking areas associated with Unit 3, the licensee shall provide to the DEP SWD office all information necessary for a complete Environmental Resource Permit application including the engineering drawings and supporting documentation necessary to demonstrate that the stormwater runoff from the proposed project will be treated and attenuated in accordance with Rules 40D-4, 40D-41 and 40D-42, F.A.C. and a Wetland Mitigation Plan if applicable. The drawings and documentation shall be signed, sealed and dated by a professional engineer registered in the State of Florida.

3. Prior to the commencement of construction, the Department shall

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conduct a timely review of the submitted information and request the correction of any errors and omissions to complete the application information. This shall be done in accordance with timeframes established in Chapter 120.60, F.S. and Rule 62-4.055, F.A.C.

4. The Department shall notify the licensee in writing that the information is complete upon review of all requested information and the correction of any errors or omissions. Construction shall not begin until the Department has provided written notification of approval of the project including the Wetland Mitigation Plan as applicable. Such approval or denial shall be provided within 30 days following completeness of the application information.

5. Turbidity and sediments must be controlled to prevent violations of water quality pursuant to Rule 62-302.500, 62-302.530(70) and 62-4.242 Florida Administrative Code (FAC). Best Management Practices, as specified in the Florida Stormwater, Erosion and Sedimentation Control Inspectors Manual, shall be installed and maintained at all locations where the possibility of transferring suspended solids into wetlands and/or surface waters due to the permitted activity. If site-specific conditions require additional measures, then the applicant shall implement them as necessary to prevent adverse impacts to wetlands and/or surface waters.

6. The existing ambient water quality within Outstanding Florida Waters shall not be lowered as a result of the proposed activity, except as authorized by the FDEP under 62-4.242(2) FAC.

7. Prior to start of construction, PEF shall prepare a Storm Water Pollution Prevention Plan and submit a copy of the National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) to use a Construction Generic Permit (CGP) for stormwater discharges (as applicable) to DEP.

F. Domestic Wastewater Treatment

Domestic wastewater from Unit 3 shall be treated by the Crystal River Units 1, 2, and 3 Sewage Treatment Plant as authorized by Domestic Wastewater Facility Permit FLA118753 issued by the DEP SW District (attached as Appendix J). PEF shall abide by the conditions of permit No. FLA118753 and any modification or renewal thereof for the continued authorized treatment of domestic wastewater from Unit 3. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions, where it is determined that Unit 3 is the cause, shall be a violation of these Conditions of Certification.

G. Radiological

1. Decommissioning

Upon application to the NRC for authority to decommission the plant, the applicant shall provide the Department a copy of the plan submitted to NRC for radioactive materials removal and/or containment for the site. Should the Department's review of the written

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plan reveal deficiencies, the Department shall bring such deficiencies to the attention of the applicant and the NRC and maintains the right to initiate a request, consistent with NRC procedural requirements that remedial action be taken to correct the deficiencies.

2. Emergency Plan

The applicant shall work with the State Division of Emergency Management in the Department of Community Affairs and the State Department of Health, Bureau of Radiation Control, and Citrus and Levy Counties in bi-annually updating the emergency procedures and evacuation planning as necessary, including but not limited to improvements in communication and warning systems and in updating predicted plume overlays.

3. Radiological Release Limitations

The recommendation in the Power Plant Site Certification Analysis that certification be issued is based in part upon the fact that in order to obtain a construction permit and operating license from NRC, the applicant must comply with all applicable regulations, requirements, and standards of the U.S. Nuclear Regulatory Commission (NRC) which limit the release of radioactive materials in solid waste, liquid or gaseous effluents to the environment. The above NRC regulations, requirements and standards include the following:

a) Standards for Protection Against Radiation, U.S. Nuclear Regulatory Commission Rules and Regulations, Title 10, Chapter 1, Part 20, Code of Federal Regulations, as presently in effect or hereafter amended.

b) Limitations and conditions for the controlled release of radioactive materials in solid, liquid and gaseous effluents contained in the Radiological Environmental Monitoring Program required by Title 10, 10 CFR 50, Appendix I as presently in effect or hereafter amended..

The Department has the statutory duty to insure that the location and operation of Crystal River Unit 3 will produce minimal adverse effects on human health, the environment, the ecology and the land and its wildlife, and the ecology of State waters and their aquatic life. (Fla. Stat. Section 403.502.) The Department has determined that the construction and operation of Crystal River Unit 3 must comply with the above radiological release limitations in order to minimize adverse effects on human health and the environment. This certification is conditioned upon full compliance by the applicant with the applicable above regulations, requirements and standards.

The NRC has the duty and responsibility imposed by statute, to enforce compliance by the applicant with NRC standards and technical specifications, to assure that the construction and operation of Crystal River Unit 3 will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public. See Section 103(d) of the Atomic Energy Act, 42 U.S.C. section 2133(d) (1970); accord. 42 U.S.C. section 2332(a) (1970) including any subsequent revisions.

However, should the Department determine that the NRC has failed to discharge its duty and responsibility, it may bring any such deficiencies to the attention of the applicant and the NRC, and maintains the right to initiate a request, consistent with NRC procedural requirements, that appropriate enforcement action be taken to correct the deficiencies.

4. Monitoring

The applicant shall comply with the most recent Department of Health Environmental Surveillance Agreement or its equivalent or future replacement. Should the Department of Health determine that additional monitoring is required, it may take appropriate action to require such monitoring by modification of this condition of certification.

5. Reservation of Legal Rights

The Department recognizes that the NRC has exclusive authority in certain areas related to the construction and operation of Crystal River Unit 3. These conditions of certification do no limit, expand or supersede any federal requirement or restriction under federal law, regulation, or regulatory approval or license. Compliance with the conditions herein does not constitute a waiver of the applicant's responsibility to comply with all applicable NRC requirements. Applicant's acceptance of these radiological conditions of certification does not, in and of itself, constitute a waiver by Applicant of any claim that any such radiological conditions are invalid under the doctrine of federal preemption or otherwise by law.

VIII. FLORIDA DEPARTMENT OF TRANSPORTATION

A. Access Management to the State Highway System

Any access to the State Highway System will be subject to the requirements of Rule Chapter 14-96, State Highway System Connection Permits, and 14-97 Access Management Classification System and Standards, F.A.C.

B. Overweight or Overdimensional Loads

Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility facility will be subject to safety and permitting requirements of Chapter 316, F.S., and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C..

C. Use of State of Florida Right of Way or Transportation Facilities

All usage and crossing of State of Florida right of way or transportation facilities will be subject to Rule Chapter 14-46, Utilities Installation or Adjustment, F.A.C.; Florida Department of Transportation's (FDOT) Utility Accommodation Manual (Document 710-020-001); Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Standard Specifications for Road and Bridge Construction; and pertinent sections of the FDOT's Project Development and

Environmental Manual. US 19 has been identified as a Florida Intrastate Highway System (FIHS) and Strategic Intermodal System's (SIS) facilities. The placement of any transmission line or pipeline should take into consideration the planned widening of these facilities. The cost of relocating or reconstructing a transmission line or pipeline will be borne by the applicant to the extent required by Section 337.403, F.S., and Rule Chapter 14-46, F.A.C.

D. Standards

The manual on Uniform Traffic Control Devices; FDOT's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; FDOT's Standard Specifications for Road and Bridge Construction; FDOT's Utility Accommodation Manual; and pertinent sections of the FDOT's Project Development and Environmental Manual will be adhered to in all circumstances involving the State highway System and other transportation facilities.

E. Drainage

Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Rule Chapter 14-86, Drainage Connections, F.A.C., including the attainment of any permit required thereby.

F. Use of Air Space

Any newly proposed structure or alteration of an existing structure will be subject to the requirements of Chapter 333, F.S., and Rule 14-60.009, Airspace Protection, F.A.C. Additionally, notification to the Federal Aviation Administration (FAA) is required prior to beginning construction, if the structure exceeds notification requirements of 14 CFR Part 77, Objects Affecting Navigable Airspace, Subpart B, Notice of Construction or Alteration. Notification will be provided to FAA Southern Region Headquarters using FAA Form 7460-1, Notice of Proposed Construction or Alteration in accordance with instructions therein. A subsequent Determination by the FAA stating that the structure exceeds any federal obstruction standard of 14 CFR Part 77, Subpart C for any structure that is located within a 10-nautical-mile radius of the geographical center of a public-use airport or military airfield in Florida will be required to submit information for an Airspace Obstruction Permit from the DFOT or variance from local government depending on the entity with jurisdictional authority over the site of the proposed structure. The FAA Determination regarding the structure serves only as a review of its impact on federal airspace and is not an authorization to proceed with any construction. However, FAA recommendations for marking and/or lighting of the proposed structure are made mandatory by Florida law. For a site under FDOT jurisdiction, application will be made by submitting FDOT Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

G. Best Management Practices

Traffic control during facility construction and maintenance will be subject to the

standards contained in the Manual on Uniform Traffic Control Devices; Rule Chapter 14-94, Statewide Minimum Level of Service Standards, F.A.C.; FDOT's Design Standards for Design, Construction, Maintenance and Utility Operation on the State highway System; FDOT's Standard Specifications for Road and Bridge Construction; and FDOT's Utility Accommodation Manual, whichever is more stringent.

It is recommended that the applicant encourage transportation demand management techniques by doing the following:

1. Placing a bulletin board on site for car pooling advertisements.
2. Requiring that heavy construction vehicles remain onsite for the duration of construction to the extent practicable.

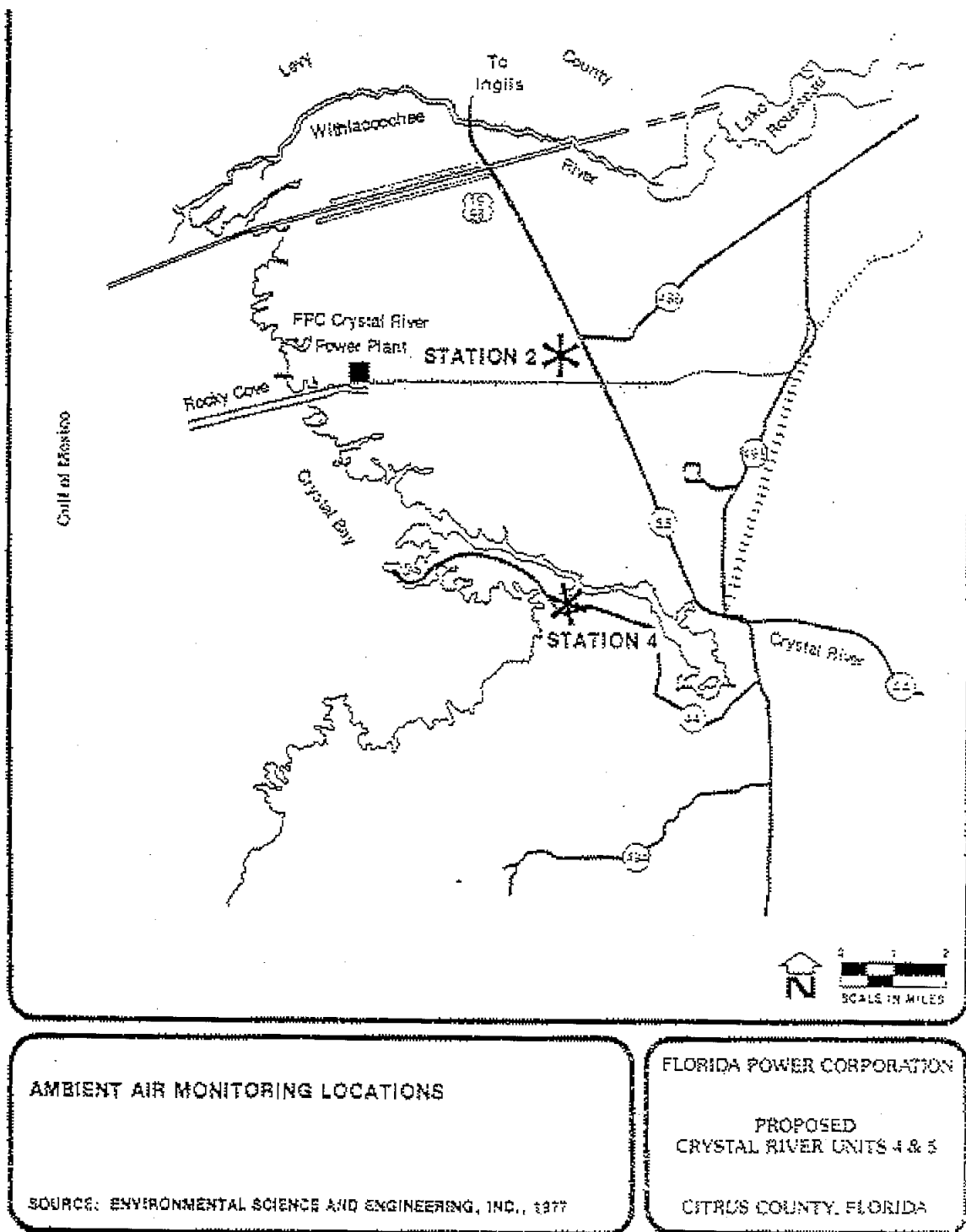
If the applicant uses contractors for the delivery of any overweight or overdimensional loads to the site during construction, the applicant should ensure that its contractors adhere to the necessary standards and receive the necessary permits required under Chapter 316, F.S., and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C.

HISTORY

Certification Issued 11/21/78; signed by Governor Askew
Modified 02/22/80; signed by Governor Graham
Modified 05/22/80; signed by Secretary Varn
Modified 05/04/82; signed by Secretary Tschinkel
Modified 06/29/82; signed by Governor Graham
Modified 02/02/84; signed by Secretary Tschinkel
Modified 07/03/84; signed by Governor Graham
Letter Modification 03/28/88; signed by Hamilton Oven Jr.
Modified 06/10/96; signed by Secretary Wetherell
Modification Denial 03/02/98; signed by Secretary Wetherell
Modification 02/01/05; signed by Program Administrator Oven
Modified 06/22/06; signed by Program Administrator Oven
Modified 11/29/07; signed by Program Administrator Halpin
Modified XX/XX/08; signed by Governor Crist

Attachment 1

Ambient Air Monitoring Locations



Attachment 2

PROGRESS ENERGY FLORIDA CRYSTAL RIVER UNITS 4 AND 5 PROPOSED LEACHATE MONITORING AND TESTING

- I. Computerized and manual literature search with the objective of obtaining an adequate data base from literature.
- II. Pre-operational Water Table Monitoring Program with the objective to acquire 12-month baseline.

Install 12 shallow peizometer well points
Install 2 deep peizometer well points
Monitor water table level
 - 1 well-recorder to establish degree of tidal influences - one month
 - 13 wells - weekly
Monitor in situ (pH, conductance, redox, dissolved oxygen) - weekly (all wells)
Monitor key water quality indicators - monthly (4 wells)
Monitor extended water quality indicators - quarterly (4 wells)
Monitor rainfall and evaporation - weekly
Develop flow net and water budget

- III. Laboratory screening of ash from low pyritic sulfur coal with the objective of evaluation of leachate formation and attenuation reactions. The program will establish the following:

- Percolation rates of compacted ash (fly and bottom ash)
- Solute release rates
- Limestone neutralization effectiveness
- Clay liner effectiveness
- Correlate extended and key water quality indicators
- Total ash leachate capacity
- Active area vs. Inactive area leachate rates
- Available fractions of solutes

Techniques for screening:

- Shake test (fly, bottom ash)
- Column leaching (6-10 months)
 - (1) Compacted fly ash (lifts and liners)

- (2) Alternative lifts of ash and limestone
- (3) Ash with clay liner
- (4) Ash with compacted limerock and fly ash liner

IV. Evaluate leachate attenuation in subsoil and water table aquifer.

- Oxidation - reduction
- Chemical precipitation/solubility/pH/Eh
- Adsorption isotherms
- Ion exchange capacity
- Metals content of limerock

V. Cost-effectiveness evaluation of alternative liners

- Water quality criteria
- Biological effects
- Cost of leachate control and treatment
- Cost of runoff control and treatment

VI. Develop final design for field test cell program defined in paragraph VII below.

VII. Field test cells program with the objective of verifying.

Monitor water budget

- Direct infiltration rates
- Direct runoff
- Direct rainfall
- Water table

Potential test cell configuration

- Ash with compacted fly ash liner only
- Ash with compacted limestone and fly ash liner
- Alternative lifts of ash and limestone with compacted fly ash liner
- Ash with selected clay liner
- Alternative caps and vegetation

Monitor leachate formation and attenuation

- 4 well clusters per cell at three depths
- Weekly water table elevations in situ water quality from all wells (pH, conductance, redox, dissolved oxygen)
- Monthly key indicators from 2 clusters per cell
- Quarterly extended indicators from 2 per cell
- 2 base well points shall be maintained up slope of the active area

VIII. Evaluate leachate management program results and develop final design of ash storage area.

IX. Periodic reports on the progress of this program will be submitted to the Department for its information and review.

X. In situ water quality indicators

pH	Redox
Conductance	Dissolved Oxygen

XI. Key water quality indicators - monthly

Conductance	Cadmium
pH	Zinc
Redox	Copper
Dissolved Oxygen	Nickel
Temperature	Selenium
Color	Chromium
Turbidity	Arsenic
Chloride	Beryllium
Iron	Mercury
Lead	

XII. Extended water quality indicators - quarterly

Key indicators plus:

Total Dissolved Solids	Gross Alpha
Suspended Solids	Aluminum
Barium	Calcium
Magnesium	Sodium
Molybdenum	Vanadium
Cobalt	

Attachment 3
DEP Discharge Monitoring Report

Appendix A. Current Title V Air Operation Permit

Appendix B Air Construction Permit 0170004-013-AC

Appendix C Air Construction Permit 0170004-014-AC

Appendix D Air PSD Permit PSD-FL-383

Appendix E Air PSD Permit PSD-FL-392

Appendix F NPDES Permit FL0036366

Appendix G NPDES Permit FL0000159

Appendix H WUP 20004695.004

Appendix I IWW Permit FLA016960

Appendix J IWW Permit FLA118753