

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



**Electric Power Plant Site Certification
Staff Analysis Report**

**Progress Energy Florida
Levy Nuclear Plant**

**PA 08-51
DEP OGC Case No. 08-1621
DOAH Case No. 08-002727 EPP**

January 12, 2009

Table of Contents

1.0	Introduction.....	1
2.0	Site and Facilities Overview	1
2.1	Site Location	1
2.2	Area Land Use.....	2
2.3	Proposed Project Description	3
2.4	NRC Regulations.....	4
2.5	Pressurized Water Reactor Design.....	6
2.6	Fuel and Fuel Handling.....	7
2.7	Cooling System	8
2.8	Stormwater Control	8
3.0	Environmental and Social Impacts	8
3.1	Local Air Quality Impacts.....	8
3.2	Air Quality Impacts (Carbon Dioxide Emissions)	9
3.3	Industrial Wastewater Discharge	11
3.4	Surface Water Use.....	12
3.5	Ground Water Use.....	13
3.6	Wastewater Disposal	14
3.7	Solid and Hazardous Waste Disposal.....	14
3.8	Terrestrial Impacts.....	14
3.8.1	Comprehensive Mitigation Plan	15
3.9	Impingement and Entrainment.....	17
3.10	Impacts from Wastewater Discharges	18
3.11	Salinity Changes	19
3.12	Transportation Impacts	20
3.13	Socioeconomic Impacts.....	20
3.14	Impact On Land Use And Surrounding Populations	20
3.15	Noise Impacts	20
4.0	Archaeological and Historic Sites.....	21
5.0	Public Lands	21
6.0	Construction and Operational Safeguards	21
7.0	Emergency Management Plans.....	21

8.0	Radiological Environmental Monitoring	22
9.0	Reviewing Agency Reports	22
9.1	Public Service Commission	22
9.2	Department of Community Affairs	24
9.3	Southwest Florida Water Management District	24
9.4	Levy County	24
9.5	Florida Fish and Wildlife Conservation Commission.....	25
9.6	Withlacoochee Regional Planning Council.....	25
9.7	Department of Transportation	26
10.0	Agency Comments (Other than Affected Agencies) and Comments from the Public	26
10.1	Division of Emergency Management	26
10.2	Department of Agriculture and Consumer Services.....	26
10.3	Comments from the Public	26
11.0	VARIANCES.....	27
12.0	CONCLUSIONS AND RECOMMENDATIONS	27
12.1	Construction Impacts	27
12.2	Operational Impacts	27
12.3	Agency Conclusions	28
12.4	Overall Recommendation	29

List of Figures

Figure 1.	LNP General Property Location (<i>2008 Yahoo! Inc.</i>).....	2
Figure 2.	Conceptual View Looking South of Major Station Components on the LNP Site. (<i>PEF COL Application Part 3, Environmental Report, Figure 3.1-3</i>).....	3
Figure 3.	Plant Location and Property Boundary. (<i>PEF COL Application Part 3, Environmental Report, Figure 1.1-1</i>).....	4
Figure 4.	Proposed Levy Nuclear Plant Site Visit During NRC Audit	5
Figure 5.	The Pressurized Water Reactor (PWR) (Nuclear Regulatory Commission).....	7
Figure 6.	Carbon Dioxide Emission Factors (Energy Information Administration)	11
Figure 7.	Inglis Bypass Spillway	12
Figure 8.	LNP Cooling Water Intake Structure and Pipelines (PEF COL Application Part 3, Environmental Report, Figure 5.2-5)	13

List of Tables

Table 1. CO2 Emissions Comparison.....	10
Table 2. Listed Species Occurring or Potentially Occurring in the Project Area	15
Table 3. Anticipated Maximum Wetland Impacts for LNP.....	16
Table 4. Proposed Wetland Functional Loss Units for the LNP.....	17
Table 5. Agency Recommendations	28

List of Appendices

Appendix I: Proposed Conditions of Certification	
Appendix II-1: Public Service Commission Determination of Need	
Appendix II-2: Department of Community Affairs Agency Report	
Appendix II-3: Southwest Florida Water Management District Agency Report	
Appendix II-4: Levy County Land Use Consistency and Agency Report	
Appendix II-5: Florida Fish and Wildlife Conservation Commission Agency Report	
Appendix II-6: Withlacoochee Florida Regional Planning Council Agency Report	
Appendix II-7: Department of Transportation Agency Report	
Appendix II-8: Department of Agriculture and Consumer Services Letter	
Appendix II-9: Withlacoochee Area Residents Submittal to SWFWMD	

1.0 INTRODUCTION

Florida Power Corporation doing business as Progress Energy Florida, Inc. (PEF/applicant) is proposing to build and operate an electric generating facility in Levy County, Florida. The proposed plant will consist of two 1,100 megawatt (MW) each (nominal capacity) nuclear powered units. PEF is proposing to construct 8 new electrical transmission lines with a total length of 180 miles. PEF submitted a Site Certification Application (SCA) to the Department of Environmental (DEP) Protection's Siting Coordination Office (SCO) for the proposed plant on June 2, 2008.

The procedures and requirements for granting or denying a certification to construct and operate an electric power generating facility in the state of Florida are set forth in the "Florida Power Plant Siting Act" (PPSA), Sections 403.501-518, Florida Statutes, and the "Power Plant Siting Rule", Chapter 62-17, Florida Administrative Code. The Department has been designated as the lead coordinating agency for the review and evaluation of SCAs and is charged with preparing a Project Analysis Report including a recommendation for granting or denying the requested certification. This report addresses the main site and associated facilities and has been prepared as a fulfillment of specific PPSA requirements. It should be noted that the scope of a certification under this act includes only state, regional and local requirements. All federal permits are processed separately from the SCA. Federal permit applications currently under review for this project include a U.S. Nuclear Regulatory Commission Combined License application, a National Pollutant Discharge Elimination System permit application, and a Prevention of Significant Deterioration permit application.

Several electrical transmission line corridors were proposed as a part of this SCA. A separate staff analysis for the proposed transmission line corridors was filed with the Division of Administrative Hearings on September 25, 2008. A copy of the Levy Nuclear Plant Transmission Line Staff Analysis Report can be downloaded from the following ftp site: <ftp://ftp.dep.state.fl.us/pub/siting/Outgoing/PEF%20Levy/PEF%20Levy%20TL%20SAR/>

As part of the 2008 legislative changes to the 403.506, F.S., an electric utility may obtain separate licenses, permits, and approvals for the construction of facilities necessary to construct an electrical power plant without first obtaining certification if the utility intends to construct a nuclear power plant. Such facilities may include, but are not limited to, access and onsite roads, rail lines, electrical transmission facilities to support construction, and facilities necessary for waterborne delivery of construction materials and project components. Any separate license or permit obtained for the facility outside of the certification process will ultimately be incorporated into the final certification. Consequently, PEF has applied for a separate ERP permit (38-272432-002-ES) for a barge slip and a portion of a heavy haul road at the LNP site. At the time of this report, the application was still incomplete. A copy of the application and related processing documents can be downloaded from the following ftp site: <ftp://ftp.dep.state.fl.us/pub/siting/Outgoing/PEF%20Levy/Little%20ERP/>.

2.0 SITE AND FACILITIES OVERVIEW

2.1 Site Location

The Levy Nuclear Plant (LNP) will be located on a 3,105 acre site in a primarily rural area southwest of Gainesville and west of Ocala. More specifically, the site is east of U.S. Highway 19 approximately 4 miles north of the Levy-Citrus County border. Refer to Figure 1 for the

general site location. The nearest incorporated municipality is the Town of Inglis which is approximately 4.1 miles to the southwest. Lands near and adjacent to the site are predominantly undeveloped. However there are small communities and clusters of homes in the region. The Gulf of Mexico lies approximately 7.9 miles to the west of the site, and Lake Rousseau is located approximately 3 miles to the south.

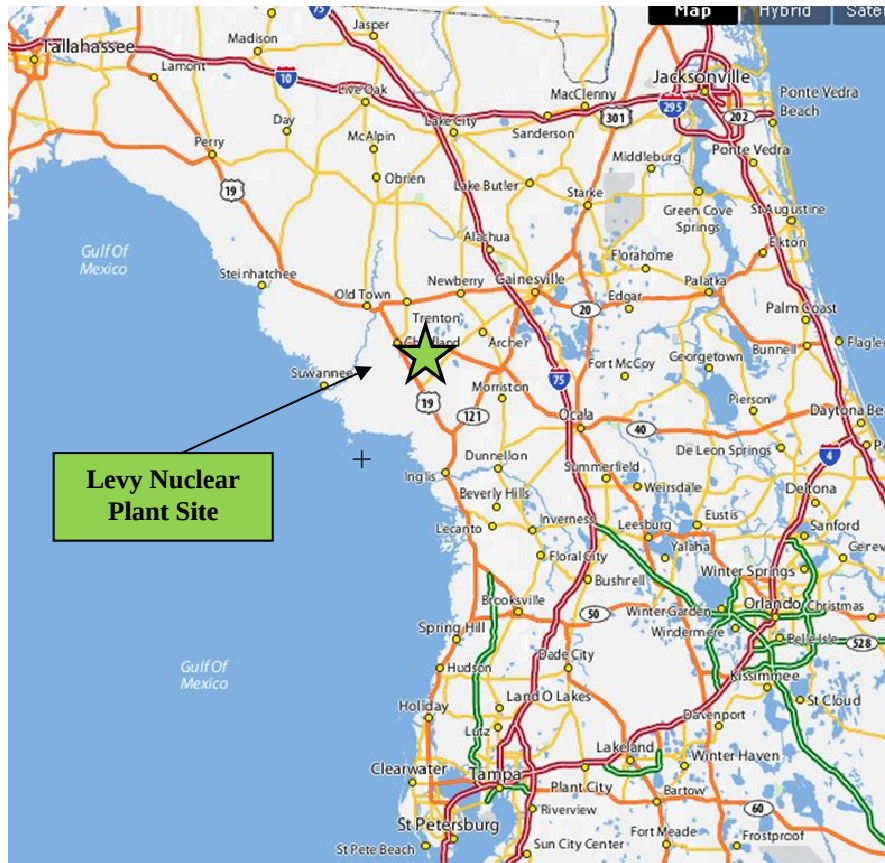


Figure 1. LNP General Property Location (2008 Yahoo! Inc.)

2.2 Area Land Use

According to the application, the 3,105 acre LNP site is predominantly mixed forest and forested wetlands. Until the site was purchased by PEF in 2007, the property was an active silvicultural site and also leased for hunting and target practice. Approximately 300 acres of the site will be occupied by the electrical generation and support structures. Much of the remainder of the site will remain unchanged or be used for onsite mitigation.

Land use adjacent to the site (within a 6 mile radius) is primarily undeveloped. Deciduous forest lands, mixed forest lands, evergreen forest land, and forested wetlands dominate this area. The LNP site is bound by the Goethe State Forest to the north, a pine plantation to the east and south, and an exotic animal hunting ranch and US 19 to the west. Residential land use comprises 8.6 percent of the adjacent area. The closest surveyed resident property boundary to the LNP site is approximately 1.6 miles to the northwest of the planned location of the nuclear reactors. The resident's home is approximately 2600 feet from the LNP property boundary.

2.3 Proposed Project Description

The applicant plans to construct and operate 2 Westinghouse Advanced Passive 1000 (AP1000) Pressurized Water Reactors (PWRs) and supporting equipment on a greenfield site in Levy County. Directly associated facilities to the plant include a makeup and blowdown pipeline and intake structures, a heavy haul road, and 179 miles of transmission lines. A railroad corridor was included in the original application. The applicant is no longer including a railroad corridor in its proposal and has amended the application accordingly (refer to <ftp://ftp.dep.state.fl.us/pub/siting/Outgoing/PEF%20Levy/Supplemental%20Information%20and%20Amendments%20to%20Siting%20Application/>).

A computer generated rendering of the plant is shown below in Figure 2.



Figure 2. Conceptual View Looking South of Major Station Components on the LNP Site. (PEF COL Application Part 3, Environmental Report, Figure 3.1-3)

The LNP facility will be located on approximately 300 acres near the center of the LNP property and will be comprised of the following structures: 2 nuclear reactors and associated mechanical draft cooling towers; three stormwater retention ponds; the “on-site” portion of the blowdown pipeline corridor; a 500-kilovolt (kV) switchyard; the switchyard connection corridor; the “on-site” portion of two access roads and heavy haul road; and a meteorological tower. The LNP certified property boundaries with nearby geographical features can be seen in Figure 3.

According to the applicant, site preparation will take approximately 18 months and is expected to begin by 2010 or 2011. Construction of each unit is expected to require approximately 3 to 4 years with the construction schedule staggered 1 year between units. The applicant anticipates construction of LNP Unit 1 will be completed by 2016 or 2017, and construction of LNP Unit 2 will be completed by 2017 or 2018.

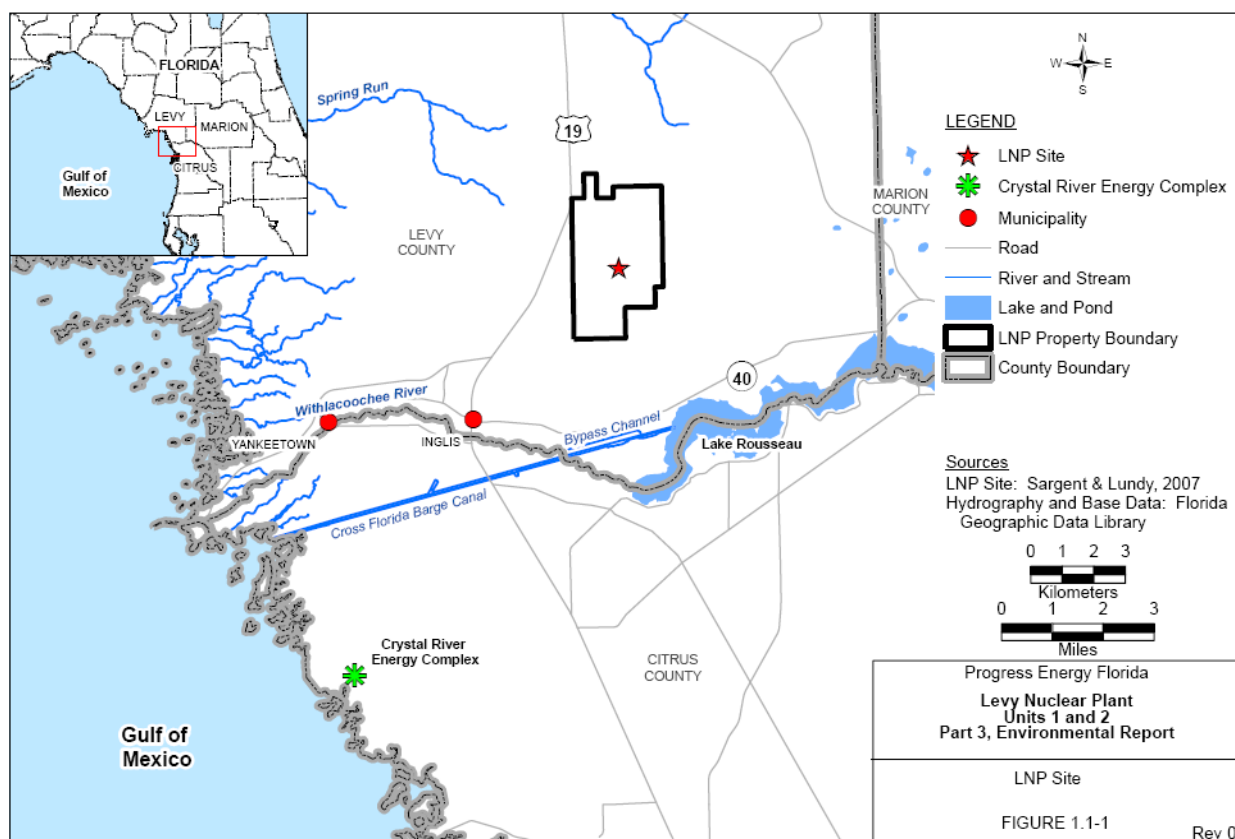


Figure 3. Plant Location and Property Boundary. (PEF COL Application Part 3, Environmental Report, Figure 1.1-1)

2.4 NRC Regulations

The U.S. Nuclear Regulatory Commission (NRC) oversees the construction, safety and operation of all nuclear power plants in the United States. PEF submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) on July 30, 2008. The application has been docketed (Unit 1 docket No. 52-029, Unit 2 docket No. 52-030) and is currently under NRC review. Details of the COL application process can be found at the following NRC website: <http://www.nrc.gov/reactors/new-reactors/col.html>

NRC staff reviews the NRC application to determine whether the plant design meets all applicable federal regulations (10 CFR Parts 26, 50, 51, 52, 54, and 100). Refer to the following NRC web pages: <http://www.nrc.gov/reactors/new-reactor-licensing.html>, and <http://www.nrc.gov/reactors/operating/regs-guides-comm.html>.

As part of the environmental review of the COL application, the NRC performs a site audit. The site audit provides the NRC staff and NRC contractor reviewers with the opportunity to: gain first-hand general familiarity of the affected environment; meet with the applicant and the application preparers to discuss information requests; view, observe, and document the affected resources within each technical discipline in the site and vicinity; and consult with affected stakeholders such as other Federal, State, and local agencies. Members of DEP staff and other state agencies attended the LNP site audit (including site visit, Figure 4 below) on December 2, 2008.



Figure 4. Proposed Levy Nuclear Plant Site Visit During NRC Audit

The NRC review and oversight includes, in part: characteristics of the site, including surrounding population, seismology, meteorology, geology and hydrology; design of the nuclear plant; anticipated response of the plant to hypothetical accidents; plant operations including the applicant's technical qualifications to operate the plant; discharges from the plant into the environment (i.e., radiological effluents); and emergency plans.

When the NRC completes its review, it prepares a Safety Evaluation Report summarizing the anticipated effect of the proposed facility on public health and safety. An environmental review is performed by the NRC staff in accordance with the National Environmental Policy Act to evaluate the potential environmental impacts and benefits of the proposed plant. After completing this review, the NRC issues a Draft Environmental Impact Statement for comment by the appropriate Federal, State, and local agencies as well as by the public. Afterwards, the agency issues a Final Environmental Impact Statement that addresses all comments received.

After issuing a combined license, the Commission authorizes operation of the facility only after verifying that the licensee completed required inspections, tests, and analyses and that the acceptance criteria were met. At periodic intervals during construction, the NRC publishes notices of these completions in the Federal Register. Then, not less than 180 days before the date scheduled for initial loading of fuel, the NRC will publish a notice of intended operation of the facility in the Federal Register. There is an opportunity for a hearing at this time, but the NRC will consider petitions for a hearing only if the petitioner demonstrates that the licensee has not met or will not meet the acceptance criteria. Before a plant can operate, the Commission must determine that the acceptance criteria have been met. Once operating, the NRC regulates spent fuel (high level waste) through a combination of regulatory requirements, licensing; safety

oversight, including inspection, assessment of performance; and enforcement; operational experience evaluation; and regulatory support activities.

“By issuing a COL, the NRC authorizes the licensee to construct and (with specified conditions) operate a nuclear power plant at a specific site, in accordance with established laws and regulations.” A COL is valid for 40 years from the date of the Commission finding, under Title 10, Section 52.103 (g), of the *Code of Federal Regulations* [[10 CFR 52.103\(g\)](#)], that the acceptance criteria in the combined license are met. A COL can be renewed for an additional 20 years.¹

As stated above, the Levy Nuclear Plant units will be Westinghouse Advanced Passive 1000 (AP1000) Pressurized Water Reactors (PWRs). The AP1000 design has been certified by the U.S. Nuclear Regulatory Commission (NRC) under 10 CFR 52, Subpart B (<http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000.html>). The NRC’s mission is to regulate non-governmental use of byproduct, source, and special nuclear materials to ensure the protection of public health and safety, to promote the common defense and security, and to protect the environment. This specifically includes the regulation of commercial reactors that generate electrical power, and the transportation, storage, and disposal of nuclear materials and waste, and the decommissioning of nuclear facilities from service.²

“Applicants or licensees intending to construct and operate a plant based on the AP1000 design may do so by referencing its design certification rule (DCR), as set forth in Appendix D to Title 10, Part 52, of the *Code of Federal Regulations* (10 CFR Part 52, Appendix D). On March 10, 2006, the NRC issued a revised final design approval (FDA) based on Revision 15 of the Westinghouse DCD”.³

2.5 Pressurized Water Reactor Design

In a typical PWR heat is created in the reactor core by the nuclear fission (splitting) of uranium atoms. There is a pressurized primary closed water loop that resides completely within the containment structure that carries heat from the reactor core to the steam generator. The steam generator is part of a secondary water loop (also closed) that directs steam from the steam generator to the steam turbine which drives the electrical generator to produce electricity. Following the steam turbine, steam within the secondary loop is condensed back into water with the use of cooling water from a third “open” water loop and sent back to the steam generator. Figure 4 below is a simplified diagram of a pressurized water reactor.

¹ U.S. Nuclear Regulatory Commission, *Combined License Application for New Reactors*, available at: <http://www.nrc.gov/reactors/new-reactors/col.html>

² U.S. Nuclear Regulatory Commission, *Power Upgrades*, available at: <http://www.nrc.gov/reactors/operating/licensing/power-upgrades.html>

³ U.S. Nuclear Regulatory Commission, *Issued Design Certification - Advanced Passive 1000 (AP1000)*, Rev. 15, available at: <http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000.html>

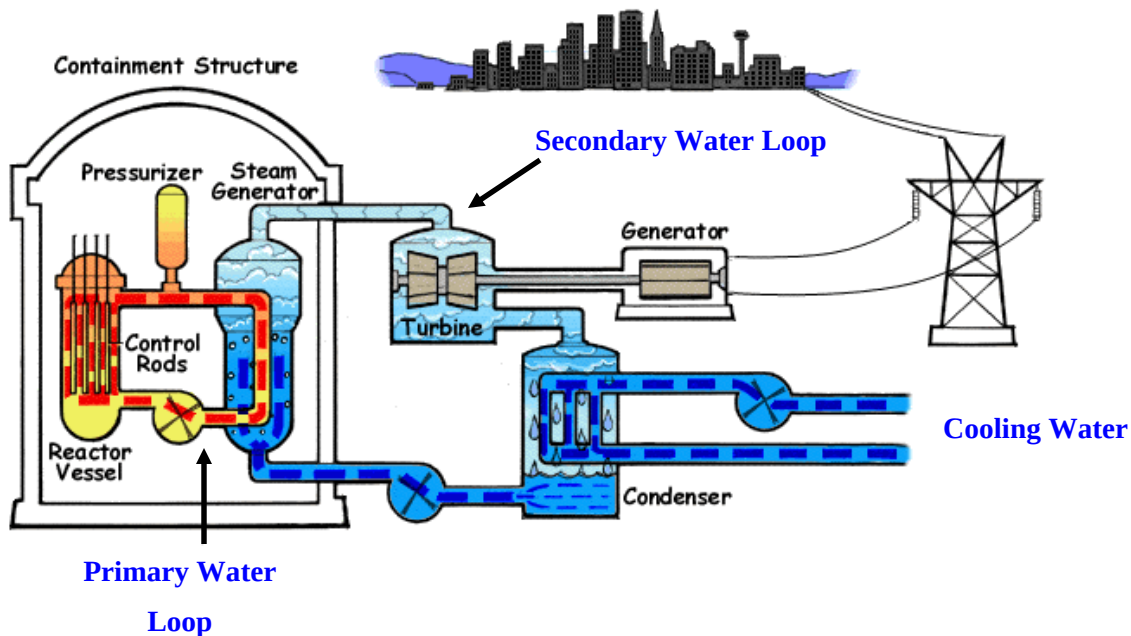


Figure 5. The Pressurized Water Reactor (PWR) (Nuclear Regulatory Commission⁴)

Each AP1000 at the LNP site will be configured in a two-loop design with two steam generators each (four total). Additional information about the AP1000 can be found at the following Westinghouse website: http://www.ap1000.westinghousenuclear.com/ap1000_glance.html.

According to the applicant, the Westinghouse Electric Company, LLC, AP1000 Design Control Document for the certified design as amended (DCD) indicates that the plant arrangement for each AP1000 unit is comprised of 5 principal building structures: nuclear island, turbine building, annex building, diesel generator building, and radwaste building. Additionally, the overall plant arrangement uses building configurations and structural designs to minimize the building volumes and quantities of bulk materials.

2.6 Fuel and Fuel Handling

Information about the nuclear fuel assemblies and fuel handling is provided in the COL Application for the LNP and is based on the DCD. The fuel rods will contain enriched uranium, in the form of cylindrical pellets of sintered uranium. Fuel will be transported to the site by truck. The transport and handling of nuclear fuel fall within the purview of the NRC and is beyond the jurisdiction of State of Florida regulations.

The various emergency generators and diesel engines will utilize ultra low sulfur diesel fuel. This fuel is trucked in and stored in on-site fuel storage tanks. Diesel fuel will also be transported to the site by truck.

⁴U.S. Nuclear Regulatory Commission, *Electronic Reading Room*, available at: <http://www.nrc.gov/reading-rm.html>

2.7 Cooling System

The following descriptions are taken from the COL Application Part 3, Environmental Report and the SCA.

Each LNP unit will be equipped with 2 cooling systems that transfer heat to the environment during normal modes of plant operation. These are the service water system (SWS) and the circulating water system (CWS).

The CWS dissipates heat for the steam condensers using 2 mechanical draft towers and one common cooling basin. Makeup water and initial fill water for the CWS will be seawater drawn from an intake structure located in the Cross Florida Barge Canal. Required makeup flow for each LNP unit will average 84,780 gallons per minute (gpm). Wastewater (backwash, blowdown, stormwater, and other low volume wastes) from reactor and plant operations, and also sanitary wastewater will be treated and either discharged to the cooling tower basin for reuse within the cooling towers or mixed with the CWS blowdown for discharge via pipeline to the Crystal River Energy Complex (CREC).

The SWS supplies freshwater cooling for the reactor turbines and associated plant components. The SWS will have 1 mechanical draft cooling tower per unit, which blows down to the CWS tower basin for reuse within the CWS. During normal operation, a makeup of 496 gpm is required for the SWS.

2.8 Stormwater Control

As proposed by the applicant, stormwater runoff from the LNP site will be collected and controlled by a stormwater drainage system consisting of a series of stormwater drainage ditches and 3 stormwater detention ponds located around the LNP site. Excess stormwater will be pumped to the cooling tower blowdown basin and discharged with blowdown if necessary.

3.0 ENVIRONMENTAL AND SOCIAL IMPACTS

3.1 Local Air Quality Impacts

The Department's Division of Air Resource Management regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as defined in Rule 62-212.400, F.A.C. For new major facilities, or for modifications to existing facilities, each regulated air pollutant is reviewed for PSD applicability based on emissions thresholds known as Significant Emission Rates (SERs).

Best Available Control Technology (BACT) review is required under FDEP and US Environmental Protection Agency (EPA) regulations pertaining to PSD. BACT is applicable to all pollutants for which PSD review is required and is pollutant specific. It is an emission limitation that is based on the maximum degree of reduction for each regulated pollutant, which is determined to be appropriate after taking into account energy, environmental, economic impacts, and other costs. BACT cannot be any less stringent than the federal New Source Performance Standards (NSPS) applicable to the source under evaluation. For the LNP, BACT is applicable for emissions of particulate matter (PM) from the cooling towers and the emergency diesel engines.

To minimize PM emissions from the cooling towers, the applicant proposes a design drift rate for the drift eliminators of 0.0005% of the circulating water flow rate. This is consistent with recent

BACT determinations for mechanical draft cooling towers. To minimize PM emissions, the engines for the emergency generators and fire pumps will fire ultra low sulfur diesel. Due to the extended construction schedule for the nuclear units, the applicant must submit a new BACT analysis within two years prior to beginning construction of the cooling towers. If the Department's reassessment of BACT is substantially different from the initial determination, the applicant shall submit an air construction permit revision application.⁵

Furthermore, on December 18, 2008 the applicant announced its intention to shut down the existing coal-fired units known as Crystal River 1 and 2 following the first re-fueling cycle of Levy Units 1 and 2 {show link}. In practical terms, beginning around the year 2020, significant reductions in regulated air pollutants will occur.

The Department made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the revised Draft Permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant (including the commitment indicated above), and the conditions specified in the Draft Permit.⁶

On December 5, 2008 the Department issued a revised draft permit (PSD-FL-403) under the Rules for the Prevention of Significant Deterioration (see: <http://www.dep.state.fl.us/air/eproducts/apds/listpermits.asp>.)

3.2 Air Quality Impacts (Carbon Dioxide Emissions)

In light of heightened concerns over global warming and Florida's recent commitment to *The Climate Registry*, it is appropriate to consider carbon dioxide (CO₂) emissions from the proposed project. The following summary is intended to put into perspective the projected CO₂ emissions from the LNP project with respect to global CO₂ emissions and CO₂ emissions from other types of electrical generating facilities.

Current and Predicted Levels of Carbon Dioxide Emissions

The primary source of CO₂ emissions is the combustion of fossil fuels such as coal, natural gas, and oil. Florida ranks fifth in the nation for CO₂ emissions from fossil fuel combustion, contributing almost four and one-half percent to the nation's total emissions in 2005.⁷ Refer to Table 1 below for a comparison of 2005 CO₂ emissions.⁸

⁵ Florida Department of Environmental Protection, Division of Air Resource Management, Bureau of Air Regulation, New Source Review Section. *Technical Evaluation & Preliminary Determination for the Levy Nuclear Plant*, December 5, 2008.

⁶ Florida Department of Environmental Protection, Division of Air Resource Management, Bureau of Air Regulation, New Source Review Section. *Technical Evaluation & Preliminary Determination for the Levy Nuclear Plant*, December 5, 2008.

⁷ U.S. Environmental Protection Agency. *State CO₂ Emissions from Fossil Fuel Combustion, 1990-2005*. Available at http://epa.gov/climatechange/emissions/state_energyco2inv.html

⁸ U.S. Environmental Protection Agency. *State CO₂ Emissions from Fossil Fuel Combustion, 1990-2005*. Available at http://epa.gov/climatechange/emissions/state_energyco2inv.html

Table 1. CO₂ Emissions Comparison

Emission Origin	2005 Total CO₂ Emissions (million metric tons)
Texas	663.87
California	390.64
Pennsylvania	277.0
Ohio	269.97
Florida	260.74
United States	5,966.04
World ⁹	28,193.00

Until recently the United States was the largest emitter of carbon dioxide emissions. According to preliminary estimates China has been the top emitter since 2006.¹⁰

The Energy Information Administration predicts emissions of CO₂ will reach almost 8,000 million metric tons in the U.S. by the year 2030.

Efficiency and Fuel Considerations

Emissions of CO₂ directly relate to the quantity of combusted fossil fuel. The more fuel consumed, the more carbon released into the atmosphere. As technologies improve, electric generating facilities of all types are constructed with greater and greater efficiencies. Higher efficiency units require less fuel for equal amounts of energy production. This translates to fewer overall carbon emissions from the more efficient units.

Carbon emissions are also dependent upon the types of fuels combusted. To produce the same amount of energy, more CO₂ is released when burning coal, than when burning fuel oil or natural gas. “Coal combustion emits almost twice as much CO₂ per unit of energy as does the combustion of natural gas, whereas the amount from crude oil combustion falls between coal and natural gas.”¹¹ Carbon emission factors for different fuel types are shown in Figure 5 below as the amount of CO₂ emitted per heat energy unit (lb/MMBtu). There are no CO₂ emissions directly associated with the use of nuclear fuels.

⁹ U.S. Energy Information Administration. *International Energy Annual 2005* (EIA 2007b)

¹⁰ Sci-Tech Today (2006-06-21)

¹¹ U.S. Energy Information Administration. *Emissions of Greenhouse Gases in the United States 1985-1990*, DOE/EIA-0573 (Washington, DC, September 1993), p. 16.

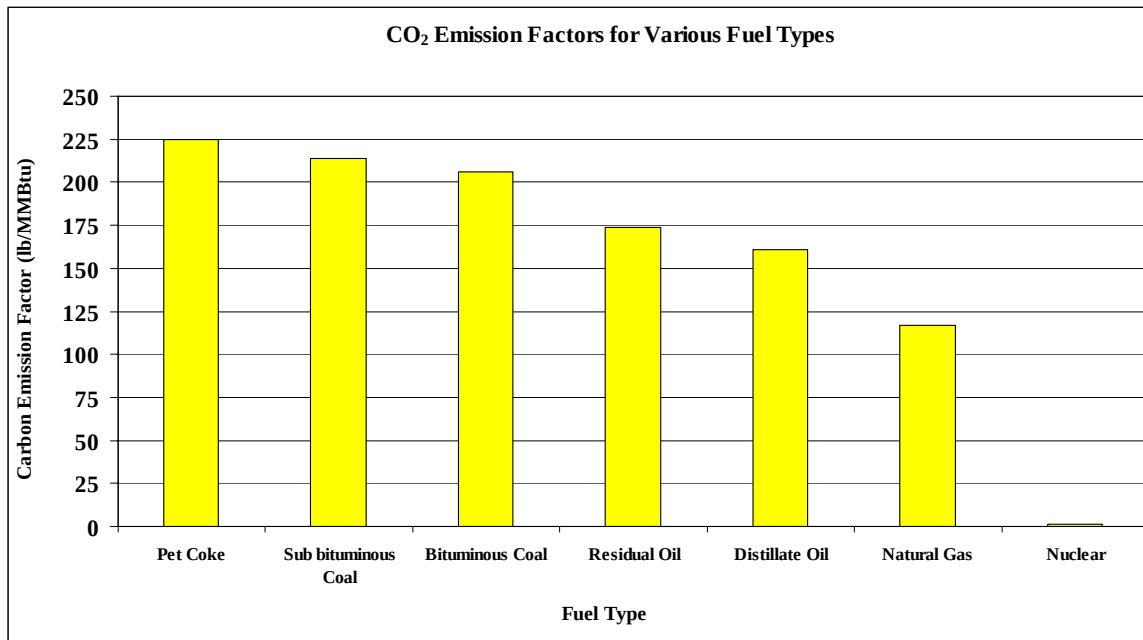


Figure 6. Carbon Dioxide Emission Factors (Energy Information Administration)

Carbon Dioxide Emissions Impacts from the Levy Nuclear Plant

As stated earlier, there are no CO₂ emissions directly associated with the use of nuclear fuel to generate electricity. The LNP project will result in new generation of approximately 2,200 MW. For comparison, a new pulverized coal plant of comparable size would emit approximately 17 million tons of CO₂ each year for the same output. Emissions from a comparable combined cycle gas unit are approximately 6 million tons of CO₂ per year. According to the applicant, the estimated CO₂ emissions predicted to be emitted from the LNP due to periodic testing of the diesel-powered equipment are 618 tons per year.

The addition of LNP Units 1 and 2 appear to be consistent with the intent of the Governor's Executive Order 07-127.

3.3 Industrial Wastewater Discharge

As stated earlier, wastewater (backwash, blowdown, stormwater, and other low volume wastes) from reactor and plant operations, and also sanitary wastewater will be treated and discharged to the cooling tower basin for reuse within the cooling towers or mixed with the CWS blowdown for discharge via pipeline to CREC. Blowdown from the cooling towers will be sent via a 13 mile long pipeline to the Crystal River Energy Complex (CREC) for discharge. According to the application, 2 pipelines (1 per unit) will run south to the Cross Florida Barge Canal (CFBC), west along the edge of the CFBC, and finally directly south to the CREC. As proposed, the LNP discharge will discharge into the existing CREC discharge canal and ultimately into the Gulf of Mexico. A possible (although more costly) alternative is the use of the CREC intake canal as the discharge point for the LNP discharge.

The wastewater discharge from the LNP to the CREC will be authorized under a National Pollutant Discharge Elimination System (NPDES) permit. PEF submitted its NPDES permit application for the LNP to the DEP Industrial Wastewater section concurrently with the SCA.

That application (DEP File No. FL0633275-001-IW1S/NP) is currently being reviewed for completeness by DEP staff. Thermal impacts, water quality, and aquatic impingement and entrainment impacts will be addressed in a finalized NPDES permit. A copy of the NPDES Application can be downloaded from the following ftp site:

[ftp://ftp.dep.state.fl.us/pub/siting/Outgoing/PEF%20Levy/SCA_Rev_0/Vol%205%20\(3%20inch\)/Section%20D%2010.02.2%20NPDES/](ftp://ftp.dep.state.fl.us/pub/siting/Outgoing/PEF%20Levy/SCA_Rev_0/Vol%205%20(3%20inch)/Section%20D%2010.02.2%20NPDES/)

According to the applicant, the expected LNP blowdown will be approximately 4.9 percent of the combined CREC discharge flow. The applicant proposes that any changes to the thermal discharge at CREC due to the addition of the LNP blowdown will be within thermal limits of existing CREC NPDES permits. Additionally, velocities within the discharge canal are not predicted to significantly increase, therefore physical impacts such as erosion, scouring, increased turbidity and siltation are expected to be small. It is noteworthy that the applicant's commitment to shut down Crystal River Units 1 and 2 by the year 2020 will yield substantial reductions in volumetric and thermal discharge with potential subsequent aquatic benefits.

3.4 Surface Water Use

PEF is proposing to pump approximately 122.1 million gallons of water per day (mgd) from the Cross Florida Barge Canal (CFBC) for the LNP's source of cooling tower makeup, cooling tower blowdown and pump strainer backwash water. As stated in the COL application, the CFBC was created as part of a federal project to create an inland water route between the Gulf of Mexico and Northeast Florida. The project was halted in the 1970s. During the initial construction phase, a 7.4 mile section of the CFBC between Lake Rousseau and the Gulf was completed. The canal bisects the Withlacoochee River, severing the hydraulic connection between Lake Rousseau and the river. To maintain flow to the lower Withlacoochee River, the Inglis Lock Bypass Channel and associated Inglis Bypass Spillway (Figure 6) were built adjacent to and just downstream of the Inglis Lock.



Figure 7. Inglis Bypass Spillway

An intake structure and pumphouse will be constructed approximately 6.9 miles from the Gulf of Mexico on the north berm of the CFBC within 0.5 miles of the Inglis Lock. (Refer to Figure 6 below.) Four 54 inch diameter high-density polyethylene (HDPE) intake pipelines (2 for each unit) will run from the intake pumphouse to the cooling system pumps near the cooling towers.

The applicant proposes that the rate of withdrawal will not have significant impacts on either the up-canal water movement or the water levels within the canal over typical tidal cycles. However, it is anticipated that these withdrawals will result in higher salinity water in the upper portions of the CFBC.

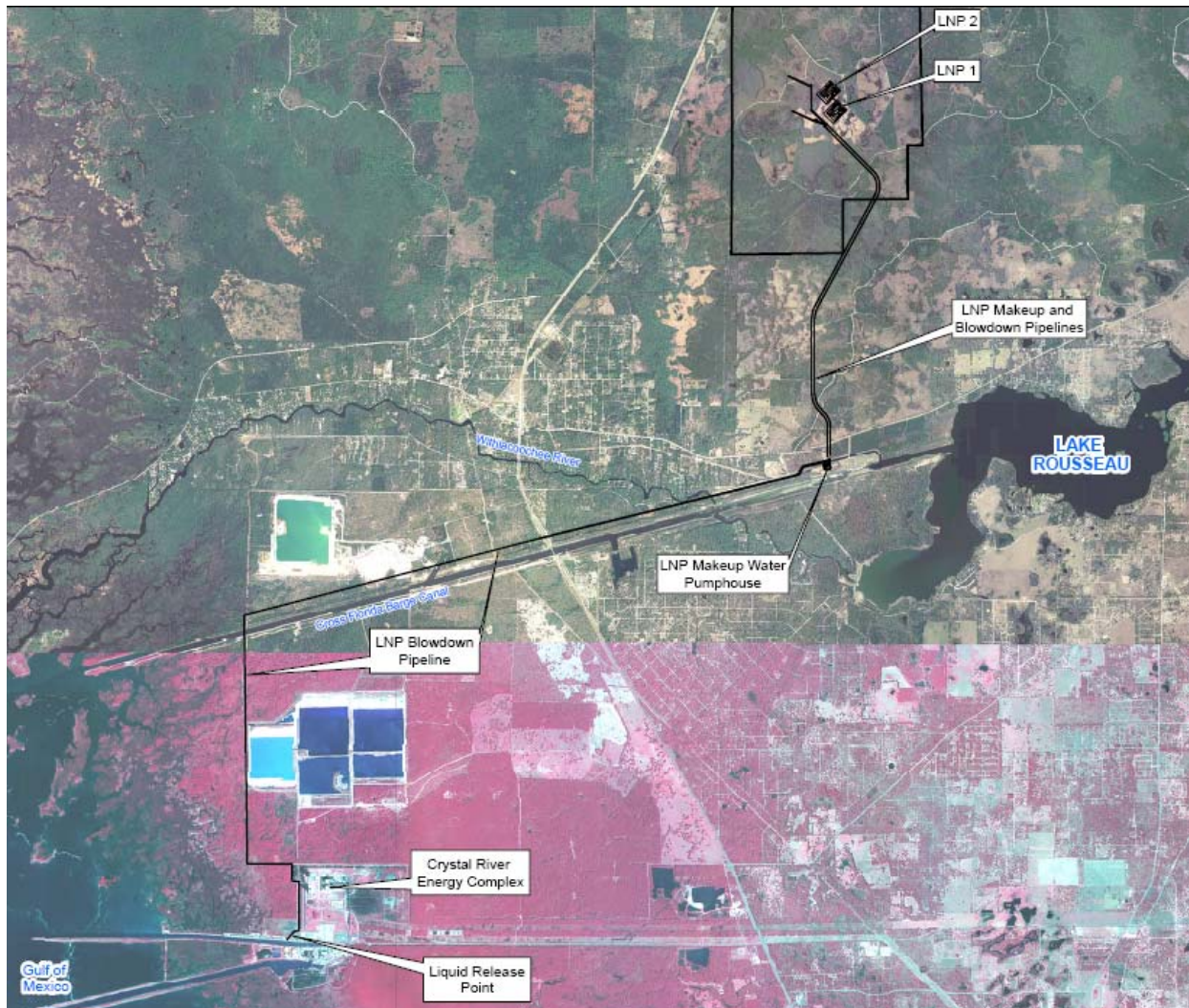


Figure 8. LNP Cooling Water Intake Structure and Pipelines (PEF COL Application Part 3, Environmental Report, Figure 5.2-5)

3.5 Ground Water Use

The applicant proposes that groundwater supply at the LNP site will be sufficient to provide the water for general plant uses (excluding cooling water supply needs for the proposed reactors). Groundwater will supply the LNP with service water cooling tower makeup water, potable water supply, raw water supply, raw water to demineralizer, fire protection, service water strainer

backwash, and media filter backwash. The applicant's original proposal was for 4 wells, each with an anticipated average annual withdrawal rate of 395,000 gpd and a peak monthly withdrawal rate of 1,462,500 gpd.

Following review of the application by the Southwest Florida Water Management District (SWFWMD) and additional modeling, the District is recommending authorization for an annual average total of 1.58 mgd of Floridan aquifer groundwater and 5.8 mgd for maximum daily use for process and potable water needs.

Conditions proposed by SWFWMD staff require the development and implementation of an environmental monitoring plan to evaluate the relative condition of surface waters and wetlands in areas potentially affected by ground water withdrawals. Conditions also require the applicant to investigate the feasibility of developing alternative water supply projects to offset groundwater use. If ongoing environmental monitoring, aquifer performance testing or groundwater modeling predict or detect adverse environmental impacts, the applicant will be required to either mitigate the adverse impacts or implement an approved alternative water supply project.

3.6 Wastewater Disposal

Sanitary wastewater from the LNP will be treated in an onsite treatment plant, using the extended aeration process for the operational stage of the plant and using the contact stabilization process for the construction phase of the plant. Treated sanitary system discharges will be combined with the blowdown discharge and transported to the CREC via the discharge pipelines. Discharges will be regulated under an NPDES permit for the LNP site.

3.7 Solid and Hazardous Waste Disposal

Minimal quantities of primarily municipal solid wastes are expected to be generated at the LNP site. According to the applicant solid wastes will be collected and disposed of by a licensed waste disposal contractor and will be disposed of in area landfills. Segregation and recycling of waste will be practiced to the greatest extent practicable.

Hazardous wastes generated at the LNP site will be collected and disposed of off-site at RCRA-permitted treatment, storage, and disposal sites, using a licensed and permitted hauler in accordance with USEPA Resource Conservation and Recovery Act (RCRA) regulations. These wastes are expected to be minimal and will not have a significant impact on waste streams according to the applicant.

3.8 Terrestrial Impacts

The 300 acre plant area near the center of the LNP site is comprised of clear cut fields, planted pine, cypress swamps, and depressional marshes largely occurring as isolated basins in stands of planted pine. These areas support a variety of common species of mammals, birds, reptiles, and amphibians including whitetail deer, coyote, bobcat, feral hog, opossum, skunk, squirrel, and raccoon. Nesting colonies of wading birds have not been observed on the site according to the applicant. Table 2 below contains both state and federally listed species either occurring or potentially occurring at the project site.

Table 2. Listed Species Occurring or Potentially Occurring in the Project Area

Common Name	Scientific Name	FL Status	Federal Status
Gopher frog	<i>Rana capito</i>	SSC	
Eastern indigo snake	<i>Drymarchon couperi</i>	T	T
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	SSC	
Short-tailed snake	<i>Stilosoma extenuatum</i>	T	
Gopher tortoise	<i>Gopherus polyphemus</i>	T	
Florida scrub jay	<i>Aphelocoma coerulescens</i>	T	T
Little blue heron	<i>Egretta caerulea</i>	SSC	
White ibis	<i>Eudocimus albus</i>	SSC	
Southeastern American kestrel	<i>Falco sparverius paulus</i>	T	
Florida sandhill crane	<i>Grus canadensis pratensis</i>	T	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	**	
Red-cockaded woodpecker	<i>Picoides borealis</i>	SSC	E
Snail kite	<i>Rostrhamus sociabilis plumbeus</i>	E	E
Florida mouse	<i>Podomys. floridanus</i>	SSC	
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	SSC	
Florida black bear	<i>Ursus americanus floridanus</i>	T*	
Florida manatee	<i>Trichechus manatus latirostris</i>	E	E

SSC = Species of Special Concern; E= Endangered; T= Threatened; **While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle management plan.

According to the COL Application, construction of the LNP site will result in permanent loss of 338 acres of tree plantation, 140 acres of cypress swamp, 145 acres of open lands, and 5 acres of bottomland swamp. Approximately 2,455 acres will remain undeveloped.

3.8.1 Comprehensive Mitigation Plan

The applicant must offset wetland impacts incurred through the construction and operation of the LNP, and associated transmission lines and water pipelines through compliance with the nonprocedural requirements of the Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP) rules under the Power Plant Siting Act Site Certification process and a U.S. Army Corps of Engineers (USACE) Section 404 Individual Permit for the Plant and the associated Lines. Typically mitigation offsets are contained within the watershed in which the impact is to occur, however exceptions are allowed as per 62-373.4135, 62-373-

4136, and 40D-4.302, F.A.C., and BOR Chapters 3.3.1.2, and 3.2.8. Following submittal of the SCA, the applicant approached Department staff with a conceptual proposal for the mitigation of all areas of impacts (plant, transmission lines and water pipeline) to be located within the greatest area of impact close to the plant site.

On December 26, 2008 the Department received a Wetland Mitigation Plan for the Progress Energy Levy Nuclear Plant and Associated Transmission Lines prepared for the applicant from Biological Research Associates (BRA). With this submittal the applicant was seeking conceptual approval of a “comprehensive mitigation plan” as described in the BRA report.

The applicant proposes that a primary value of this mitigation program is an overall increase in ecological function provided across several thousand acres in a regionally significant location and that this landscape-level ecosystem benefit substantially augments the value of local-scale mitigation activities. Additionally, the applicant has proposed mitigation which will achieve greater offset from a regional watershed perspective and provides much more long-term ecosystem benefit over the onsite alternative.

Department staff reviewed the December 26th submittal, and agree that a comprehensive mitigation plan as described above may be an acceptable alternative to traditional “in-basin” mitigation. The Department conceptually approves this mitigation proposal with the understanding that more detailed information is forth coming. The Department will require detailed information concerning the pine tree plantation mitigation including but not limited to reasonable assurance that tree thinning, limited ditch filling, controlled burns, and selected plantings will yield a substantial ecological benefit and will offset the proposed wetland impacts. A detailed success criteria for mitigation must also be approved including monitoring, contingency plan and percent coverage as well as exotic management.

A Condition of Certification has been included to require submittal of refinements to the mitigation proposal within 180 days of certification for approval. The applicant must still gain approval from the USACE.

The anticipated maximum wetland impacts (acres) for the Levy Nuclear Project ("LNP"), including the impacts from associated facilities and electrical transmission line corridors are estimated and as presented in the following table:

Table 3. Anticipated Maximum Wetland Impacts for LNP.

Wetland Type	LNP Site, All On-site Activities	Transmission Line Corridors (Off-site)	Blowdown Pipeline (Off-Site)	Total
Open Water	0.0	10.7	0.0	10.7
Forested	512.5	55.2	12.4	580.1
Herbaceous	42.8	67.2	28.6	138.6
Total	555.3	133.1	41.0	729.4

Utilizing the maximum anticipated impact numbers set forth above, PEF has developed a mitigation plan to offset the impacts. The proposed maximum wetland functional loss units for

the LNP have been calculated in accordance with the Uniform Mitigation Assessment Methodology ("UMAM") contained in Chapter 62-345, Florida Administrative Code ("FAC"), and are as shown in the following table:

Table 4. Proposed Wetland Functional Loss Units for the LNP.

Wetland Type	LNP Site, All On-site Activities	Transmission Line Corridors (Off-site)	Blowdown Pipeline (Off-Site)	Total
Open Water	0.0	-8.6	0.0	-8.6
Forested	-247.8	-44.2	-9.9	-301.9
Herbaceous	-22.8	-53.8	-22.9	-99.5
Total	-270.6	-106.6	-32.8	-410.0

The wetland impacts are of three types. These include (1) permanent impacts resulting from the filling of a wetland to allow for construction and removing its function; (2) temporary impacts from disturbance of a wetland adjacent to a construction area or to allow for the installation of a buried pipeline; and (3) partial impacts resulting from clearing of trees along the transmission line corridors but maintaining non-forested wetland functions. For purposes of calculating the maximum wetland impacts, all three types of impacts have been grouped together and considered to be permanent impacts which produce a worst case analysis. It is anticipated that the total acres of impacted wetlands will be reduced from the figures outlined in Table 3, above, when the rights-of-way for the transmission lines and the blowdown pipeline have been finalized and further efforts to minimize impacts have been completed, and consequently the offsetting mitigation would be reduced accordingly

3.9 Impingement and Entrainment

Section 316 of the federal Clean Water Act (CWA) establishes national technology-based performance requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities. The national requirements establish the best technology available (BTA), based on a two-track approach, for minimizing adverse environmental impact associated with the use of these structures. This final rule applies to new Greenfield power plant sites, such as the LNP, and standalone facilities that use cooling water intake structures to withdraw water from waters of the United States, and that have or require an NPDES permit issued under Section 402 of the CWA. The Phase I Rule establishes a two-track approach for regulating cooling water intake structures at new facilities. The applicant has chosen to follow Track I for the LNP cooling water system. Under Track I, new facilities with a design intake flow equal to or greater than 10 mgd, must meet the following requirements: (1) cooling water intake flow must be at a level commensurate with that achievable with a closed-cycle, recirculating system, and (2) through-screen intake velocity must be less than or equal to 0.5 feet per second (ft/sec) (40 CFR 125.84(2)).

The applicant proposes that the LNP design intake through-screen velocities of less than 0.5 ft/sec and the low approach velocities at the bar screens ensure that most healthy fish, crabs, and

shrimp approaching the cooling water intake system (CWIS) will be able to swim away from the screens. Manatees approaching the screens will be restrained from entering the CWIS forebay with bar screens; and the low approach velocities will allow the animals to easily swim away.

According to the applicant, the protected fish species in the CFBC (smalltooth sawfish, and Gulf sturgeon) would not be adversely affected by impingement. The smalltooth sawfish's live birthed young are born 1.5 ft. to 2 ft. long and fully capable of avoiding impingement where the approach velocities are in the very low range. The Gulf sturgeon does not spawn in the area of the CFBC, and the young are not anticipated to be present near the LNP CWIS.

The applicant proposes that potential entrainment impacts from the operation of the proposed LNP have been reduced by approximately 90 percent from the potential flows of a once-through cooling system by the use of a closed-cycle cooling water system. The applicant further states that the design use of cooling towers at the LNP means that potential entrainment has been minimized to the extent practical by the use of the Best Technology Available cooling system.

The CWA Section 316(b) component of the NPDES permit to be issued to the LNP for the operation of the CWIS will likely require some monitoring of impingement rates to ensure that impingement rates are low, as predicted by the design. Should impingement rates be higher than anticipated, the applicant states that adjustments to the installed technology could be made to further reduce impingement impacts. Impacts due to entrainment are addressed in the NPDES permit.

3.10 Impacts from Wastewater Discharges

Blowdown discharges from the LNP cooling system could potentially affect the receiving body of water through heat loading and chemical contaminants. As stated earlier, the LNP blowdown is estimated to be approximately 4.9 percent of the combined CREC discharge flow. According to the COL application, "the temperature of the LNP blowdown will be approximately 89.1 °F and is not anticipated to result in changes to the requirement for "helper" cooling tower use related to the existing CREC discharge canal during warm summer months and any reductions to the CREC thermal discharge due to the addition of the LNP blowdown contribution will be slight and comply with applicable permits and regulations." In its NPDES application, the applicant stated that the maximum temperature of the LNP discharge, on a short term basis could be 96.4°F based on conservative assumptions concerning the maximum wet bulb temperature. This short term maximum would be lower than the existing temperature limits at CREC.

Based on studies conducted by the applicant, and available ecological information, the applicant proposes that "no measurable adverse impacts on aquatic biota, including populations of important species present in the CREC discharge canal and the nearshore Gulf sea grass habitat are likely to result from the addition of the small thermal component of the LNP blowdown."

The Florida Fish and Wildlife Conservation Commission (FWC) has expressed concerns regarding potential impacts to the above mentioned habitats, and effective monitoring efforts to discern actual impacts of the project. FWC has recommended monitoring requirements as conditions of certification. (see Appendix I)

The Department's Office of Coastal and Aquatic Managed Areas (CAMA), also has specific concerns related to the CREC combined discharge. According to 62-302.700(9) (f) 4, F.A.C. and 62-302.700(9) (f) 38, F.A.C., St. Martins Marsh and Big Bend Seagrasses Aquatic Preserves

are Outstanding Florida Waters. According to CAMA staff, as proposed, nutrient discharge concentrations are significantly higher than ambient conditions based upon Aquatic Preserve water quality monitoring data. As proposed, the Levy County Nuclear Plant project may cause an increase in nutrients, temperature, and salinity in Crystal Bay and adjacent waters. To maintain ambient water quality conditions and protect valuable coastal resources, CAMA states that best management practices should be implemented for sanitary wastewater and stormwater. A requirement for salinity, temperature, nutrient, total suspended solids, and dissolved oxygen monitoring within the surface waters of the Bay including areas in close proximity to St. Martins Marsh and Big Bend Seagrasses Aquatic Preserves has been included in the proposed conditions as recommended by CAMA. (see Appendix I)

As stated earlier, the wastewater discharge from the LNP to the CREC will be authorized under a National Pollutant Discharge Elimination System (NPDES) permit. Thermal impacts and water quality, as well as aquatic impingement and entrainment impacts and CAMA concerns will also be addressed in a finalized NPDES permit.

3.11 Salinity Changes

Within the Cross Florida Barge Canal

As stated above, when fully operational, the LNP will withdraw approximately 122.1 mgd from the Cross Florida Barge Canal (CFBC) for the LNP's source of cooling tower makeup, cooling tower blowdown and pump strainer backwash water. The applicant anticipates that over time, this will change the characteristics of water in the upper CFBC and that during certain conditions, there may be flows of higher salinity Gulf waters toward the intake structure. There are freshwater springs that discharge into the upper portions of the canal, and discharges over the Lake Rousseau Dam during wet periods. Therefore, according to the applicant lower salinity water will be present in the upper CFBC. However, the upper portions of the canal are expected to be consistently more saline than existing conditions and most often are expected to approximate the average salinity conditions of the lower canal and nearshore Gulf waters.

According to the COL Application, Environmental Report, the aquatic benthic infauna near the location of the proposed intake structure occur with less diversity and in lower abundance than other areas of the CFBC. The applicant proposes that this is likely due to the variable salinities near the lock and that these salinity variations and the slow travel time of the water have resulted in a small, isolated population of freshwater aquatic fauna. The applicant's prediction is that during operation of the plant, the consistently higher salinity will result in an improved aquatic biota in the upper reaches of the canal that more closely resembles that of the lower CFBC and the near-shore gulf waters. As discussed in a later section, FWC is requesting that additional monitoring and modeling be completed as a condition of certification.

Within the Lower Withlacoochee River

The Lower Withlacoochee River receives water directly from Lake Rousseau only through the Inglis Lock Bypass Channel and associated Inglis Bypass Spillway. A direct connection to the CFBC does not exist between the Lower Withlacoochee and the CFBC. Area residents have expressed concerns regarding the degradation over time to the Lower Withlacoochee River since its bifurcation by the barge canal in the early 1970s. Some feel it would be beneficial to close off the CFBC and restore the river to its original condition. SWFWMD has evaluated this option

and has not advocated to reconnect the River. There also exist concerns by residents over water quality being degraded by the close proximity to the LNP and salinity changes within the CFBC.

3.12 Transportation Impacts

As stated in the SCA, a transportation study conducted in 2007 by Lincks and Associates, Inc. estimated the traffic associated with trips by commuting operations workers based on a trip generation rate of 2.38 trip ends per operations worker. Using this rate, the applicant estimates that at the operations stage, the project will attract 1840 daily trip ends associated with operations traffic. The study concludes that US-19 will operate at an acceptable level of service during the operations phase of the project.

The applicant has stated that information related to the potential impact of facility operations or construction activities on modal transportation, including the use of overweight or over-dimensional vehicles, rail, and shipping, will be provided upon conclusion of the final LNP and associated facilities design. The Florida Department of Transportation has submitted proposed Conditions of Certification to ensure transportation requirements are met. Additionally, Levy County has included local transportation requirements as conditions of certification.

3.13 Socioeconomic Impacts

It is anticipated by the applicant that the LNP project will result in positive economic benefits for the county and surrounding areas through employment opportunities during construction and increased revenue from direct local property tax payments and sales tax from the purchase of equipment and materials in support of construction activities.

3.14 Impact On Land Use And Surrounding Populations

As stated in the COL Environmental Report, there are no special land use categories, such as Prime Farmland, within the site boundary. A total of approximately 125.5 acres of mixed forest lands and approximately 37.6 acres of other agricultural land, described further as rural open lands, tree plantations, and cypress, would be changed on-site at the LNP. The applicant makes the point that these lands are not unique to the site or vicinity, with mixed forest lands and other agricultural lands representing 28.6 percent and 3.9 percent respectively. Therefore land use restriction impacts are anticipated by the applicant to be minimal.

Levy County has determined that the project is consistent, and in compliance with the County's comprehensive plans and development regulations ordinances. (see Appendix II-4)

3.15 Noise Impacts

A noise analysis was conducted for the LNP site. Based on the analysis, construction noise is not expected to be of significant notice, except during limited periods of very intense construction noise (such as pile driving), and when ambient background noise is exceptionally low.

The noise analysis also predicted that off-site noise levels during operation would not exceed the noise limitations established by the Levy County Noise Ordinance (65 dBA daytime hours, 55 dBA nighttime hours). According to the applicant, the LNP site will be designed to ensure that all applicable Occupational Safety and Health Administration (OSHA) noise requirements are met. Additionally, specific conditions containing noise related restrictions are included in the proposed conditions. (see Appendix I)

4.0 ARCHAEOLOGICAL AND HISTORIC SITES

There are no known archaeological or historic sites located within the LNP site. Also, no sites listed or eligible for listing in the National Register of Historic Places are located on the site. On November 13, 2008 the Department received an email from the Department of State, Division of Historical Resources stating that the Division has no issues for the site certification of the plant.

5.0 PUBLIC LANDS

This project will not displace any human populations. According to the applicant, the development of the project at this site will not adversely affect cultural resources, landmarks, or sensitive areas.

The following are natural and scenic areas within 5 mi. of the LNP site: The Goethe State Forest, Crystal River Preserve State Park, South Goethe Parcel, Marjorie Harris Carr Cross Florida Greenway State Recreation and Conservation Area, and the Withlacoochee River, recognized as an Outstanding Florida Water (OFW). There are no designated cultural landmarks within a 5-mi. radius of the LNP.

As part of this project, certain easements/leases will need to be acquired from the Division of State Lands in order for the applicant to construct certain features of the project. Negotiations are ongoing for an exchange between the applicant and the DEP Office of Greenways and Trails for a future trail on the PEF owned corridor from Dunnellon, north to Chiefland as a condition for the use of Cross Florida Greenway Lands. Such an exchange will necessitate approval from the Board of Trustees (Governor and Cabinet), and although not approved as of the issuance of this report, has been contemplated within the Conditions of Certification, Section XXXIX.E.

6.0 CONSTRUCTION AND OPERATIONAL SAFEGUARDS

As outlined in the application, construction procedures will conform to the goals and criteria set forth in regulatory guidelines and requirements of state, regional and local agencies. The applicant will adhere to applicable local, state, and federal requirements during construction and operation activities. Compliance with OSHA standards and the provisions of Section 440.56, F.S. should adequately protect construction workers and operating personnel.

7.0 EMERGENCY MANAGEMENT PLANS

Chapter 252 of the Florida Statutes establishes the means by which certain radiological emergency response plans and preparedness requirements of the NRC and the Federal Emergency Management Agency can be developed and tested by the state, the appropriate counties, and each operator licensed by the NRC to operate a commercial nuclear electric generating facility. Roles and responsibilities of those organizations that would respond to a nuclear power plant emergency are outlined in Annex A, State of Florida Radiological Emergency Management Plan included as part of the State of Florida's Comprehensive Emergency Management Plan (CEMP). Visit the following links to view a copy of Annex A, State of Florida Radiological Emergency Management Plan, and the Florida Division of Emergency Management's Radiological Emergency Preparedness page.

<http://www.floridadisaster.org/documents/CEMP/REP2004/Annex%20A/AnnexAtbc.htm>

<http://www.floridadisaster.org/bpr/EMTOOLS/Nuclear/rep.htm>

As stated in the SCA, an Emergency Disaster Preparedness Plan will be developed for the LNP and submitted to the Florida Department of Community Affairs for review and approval prior to commercial operation of the LNP. Additionally, the proposed Conditions of Certification include a requirement to work with local and state agencies to prepare emergency procedures and evacuation planning as necessary.

8.0 RADIOLOGICAL ENVIRONMENTAL MONITORING

There are five nuclear power reactors operating at three sites in Florida licensed by the NRC: Units 1 and 2 at St. Lucie, Units 3 and 4 at Turkey Point, and Unit 3 at Crystal River. Under an agreement with the NRC, the Florida Department of Health conducts environmental monitoring programs around all three sites. Thermoluminescent detectors surrounding each site identify direct radiation and special air sampling stations identify radioactive particulate emissions. Department staff also collect and analyze other samples, including vegetation, fish, citrus, watermelon, milk, garden vegetables, shoreline sediment, beach sand, drinking water, surface water, and ground water. (see: <http://www.doh.state.fl.us/environment/radiation/>). Upon licensing and operation, the LNP will be a part of the NRC's and the DOH's monitoring program and DOH will be compensated pursuant to 404.131(5)(a), F.S..

9.0 REVIEWING AGENCY REPORTS

Although the DEP is designated as the agency to coordinate the process, many of the concerns that are to be addressed in the SCA impact assessment are outside the purview of DEP. Consequently, the Siting Act requires several other state agencies to participate in the review process. Each of these agencies is directed to review the SCA with regard to compliance with the statutory and administrative requirements of the reviewing agency. Each of these agencies is further directed to prepare a written report to the DEP explaining their findings and specifying any restrictions or requirements that should be included in the Conditions of Certification. These agencies are: the Public Service Commission (PSC); the Department of Community Affairs (DCA); the Water Management District (WMD) with jurisdiction over the site; all local governments with jurisdiction over the site; the Fish and Wildlife Conservation Commission (FWCC); the Regional Planning Council with jurisdiction over the site; the Department of Transportation (DOT); and any other agency if requested by DEP.

The following are summaries of submitted agency reports. Agency reports in their entirety have been included in Appendix II. The descriptions herein do not necessarily reflect the Department's views or positions. The actual recommendations of the Department are described in a later section.

9.1 Public Service Commission

Chapter 80-65, Laws of Florida (1980) requires a formal "Determination of Need" be made by the Florida Public Service Commission (PSC) prior to certification of an electric power generating facility subject to the "Power Plant Siting Act" (sections 403.501-519, Florida Statutes). The issues evaluated in the PSC's determination proceedings include electric system reliability and integrity, including fuel diversity, the need for base-load generating capacity, the need for adequate electricity at a reasonable cost, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. Refer to the following language from 403.519(4), F.S.: *"In making its determination on a proposed electrical power plant using nuclear materials or synthesis gas produced by integrated*

gasification combined cycle power plant as fuel, the commission shall hold a hearing within 90 days after the filing of the petition to determine need and shall issue an order granting or denying the petition within 135 days after the date of the filing of the petition. The commission shall be the sole forum for the determination of this matter and the issues addressed in the petition, which accordingly shall not be reviewed in any other forum, or in the review of proceedings in such other forum. In making its determination to either grant or deny the petition, the commission shall consider the need for electric system reliability and integrity, including fuel diversity, the need for base-load generating capacity, the need for adequate electricity at a reasonable cost, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available.”

Pursuant to 403.519(4)(d), F.S., once a determination has been made by the PSC that a facility is needed, these specific issues (including cost effectiveness and reliability, and whether renewable energy sources or conservation measures can be employed in lieu of building and operating the plant) not be “re-considered” as part of this approval process.

403.519(4)(d), F.S.: The commission's determination of need for a nuclear or integrated gasification combined cycle power plant shall create a presumption of public need and necessity and shall serve as the commission's report required by s. 403.507(4)(a). An order entered pursuant to this section constitutes final agency action. Any petition for reconsideration of a final order on a petition for need determination shall be filed within 5 days after the date of such order. The commission's final order, including any order on reconsideration, shall be reviewable on appeal in the Florida Supreme Court. Inasmuch as delay in the determination of need will delay siting of a nuclear or integrated gasification combined cycle power plant or diminish the opportunity for savings to customers under the federal Energy Policy Act of 2005, the Supreme Court shall proceed to hear and determine the action as expeditiously as practicable and give the action precedence over matters not accorded similar precedence by law.

The need determination issued by the PSC serves as the report required as part of the power plant site certification proceedings. The Department of Environmental Protection (DEP) must balance the determination of need with the social and environmental impacts when preparing overall recommendations for final approval or disapproval of a SCA.

On August 12, 2008 the PSC issued their Final Order Granting Petition for Determination of Need for the proposed Levy Nuclear Plant (Units 1 and 2). The following summary is an excerpt from the PSC’s Final Order:

“First, PEF demonstrated a reliability need for additional base-load capacity by 2016. Levy Units 1 and 2 will add 2,200 MW of nuclear fueled GHG emission free base-load generating capacity which is needed to keep pace with the increasing demand for reliable power and the steady population growth in the State of Florida. Next, Levy Units 1 and 2 represent a critical component in PEF's efforts to maintain a diverse fuel mix and reduce the State's dependence on natural gas and fuel oil. Maintaining a balanced fuel portfolio will result in less volatile total fuel costs over time and will enhance the reliability of the electrical system. In addition, PEF's assumptions and predictions indicate that Levy Units 1 and 2 will provide adequate electricity at a reasonable cost. The evidence shows that despite PEF's proposed incremental increase of 512 MW of DSM and more than 250 MW of cost-effective renewable energy contracts, additional capacity would still be needed in 2016 to meet PEF's need for base-load generation. Lastly, PEF's analysis illustrates a high probability of customer savings during the life of the proposed

Levy Units 1 and 2. Additionally, the fuel and environmental benefits of Levy Units 1 and 2 could continue beyond the analysis presented in this proceeding.”

The PSC’s report is attached and incorporated as Appendix II-1.

9.2 Department of Community Affairs

On December 16, 2008 the Department received a report from the Department of Community Affairs (attached as Appendix II-2) stating that, “In consideration of the regulatory role designated to the NRC in the situation of nuclear facilities, the Department (DCA) has not identified any issues with respect to this project as it is currently proposed.”

9.3 Southwest Florida Water Management District

The Department received a final Agency Report from the Southwest Florida Water Management District (SWFWMD or District) regarding certification of the LNP via email on December 17, 2008.

The District has recommended authorization for an annual average total of 1.58 mgd of Floridan aquifer groundwater and 5.8 mgd for maximum daily use for process and potable water needs, provided its proposed conditions are applicable to the certification order. As stated in the SWFWMD report, “To confirm that water use associated with plant operations does not cause adverse environmental impacts, conditions proposed by staff include requiring the development and implementation of an environmental monitoring plan to evaluate the relative condition of surface waters and wetlands in areas potentially affected by ground water withdrawals. The conditions are structured to require that if ongoing environmental monitoring, aquifer performance testing or groundwater modeling predict or detect adverse environmental impacts, The applicant will be required to either mitigate the adverse impacts or implement an approved alternative water supply project.”

“Based on the fact that most of the water to be used at the LNP site will be withdrawn from the Cross Florida Barge Canal, which is not a current or planned source of potable water for the region, and that the amount of groundwater to be used will be limited to approximately 1.58 mgd on an annual average basis, District staff anticipates that the regional water supply is adequate to support this use as well as other projects currently planned in the region. The proposed water use does not conflict with or otherwise impact the anticipated plans and water uses proposed by the Withlacoochee River Water Supply Authority.”

The SWFWMD recommends approval of the LNP, subject to the recommended Conditions of Certification. The SWFWMD report is attached and incorporated as Appendix II-3.

9.4 Levy County

On September 2, 2008, the Levy County Board of County Commissioners approved, with conditions, a “Special Exception Use Permit” (SE 2-08) that would allow the construction and operation of two nuclear reactor powered electrical generating plants. On September 23, 2008 Levy County made a determination (filed with DOAH) that the LNP site is consistent with the County’s land use plans and zoning ordinances that were in effect on the date the application was filed. Levy County submitted its final agency report to DEP on December 17, 2008. The County included in its report a set of conditions to ensure consistency with applicable local ordinances, regulations, standards and criteria consistent with conditions of SE 2-08.

The County recommends approval of the LNP subject to the proposed conditions.

Copies of the Levy County Special Exception Use Permit approval letter, the staff review of the SE 2-08 application, the land use determination, and final agency report are attached as Appendix II-4.

9.5 Florida Fish and Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission (FWC) submitted its final agency report on December 10, 2008. On January 8th, 2008 the Department received a Revised agency Report including revisions to the proposed Conditions of Certification. In its report, the FWC described the following potential impacts of concern: impacts to listed species; impacts to aquatic species in the Cross Florida Barge Canal and Lower Withlacoochee River due to water quality changes; impacts to the marine and estuarine environment in Crystal Bay due to temperature and salinity changes.

For state listed species, on a case-by-case basis, either a re-location or incidental take authorization may be required for each impacted species. Requirements for listed species (including the gopher tortoise, bald eagle, Florida scrub-jay, red-cockaded woodpecker, and Florida manatee) have been included as proposed Conditions of Certification.

FWC states that, based on the applicant's modeling information, changes in water quality and therefore, fauna will occur over 7 miles of the CFBC, and that there is a possibility of impacts to the water quality and ecology of the Withlacoochee River. FWC recommends additional baseline data sampling and have submitted proposed conditions requiring monitoring and reporting in order to evaluate impacts of the proposed water withdrawals from the CFBC.

FWC also expressed concerns in its report regarding the additional effluent from the Crystal River Energy Complex due to the added discharge of the LNP. FWC states that "alterations in temperature and salinity may affect the aquatic biological resources present, however the hydrological modeling may not adequately represent the temperature and salinity plumes that could be expected. There may also be a nutrient component to be addressed." FWC has proposed conditions requiring the submittal of a Discharge Survey Monitoring Plan to assess the impacts to seagrasses and fauna within the vicinity of the CREC discharge canal.

The FWC has recommended approval of the LNP subject to conditions as described above. FWC's recommended conditions have been included in the Proposed Conditions of Certification.

The FWC reports are included as Appendix II-5.

9.6 Withlacoochee Regional Planning Council

The Department received an agency report from the Withlacoochee Regional Planning Council (WRPC or Council) on December 12, 2008. Council staff reviewed the SCA for consistency with the applicable provisions of the *WRPC Strategic Regional Policy Plan (SRPP)*. Specific areas of review included, emergency preparedness, transportation, economic development, housing and in-migration, and natural resources. To ensure the project remains consistent with the SRPP, WRPC staff recommended conditions of certification in each area of review excluding housing and in-migration. The Council's recommended conditions have been included in the Department's proposed conditions with revisions. Certain Council recommendations fall under the purview of other agencies. Where other agency conditions are sufficient to "cover" WRPC's

recommended conditions, those requirements were omitted. This minimizes redundancy within the Conditions of Certification, and avoids confusion with compliance issues.

Council Staff do not object to approval of the Levy Nuclear Plant. The report is attached as Appendix II-6.

9.7 Department of Transportation

On December 15, 2008, the Florida Department of Transportation (DOT) submitted their agency report (attached in Appendix II-7). The DOT recommended approval contingent upon the applicant's compliance with recommended conditions. These conditions are included in the proposed Conditions of Certification. At the time of the submittal of DOT's agency report, the SCA had not been amended to reflect the removal of the proposed rail spur. The DOT agency report included proposed conditions applicable to the rail spur. These conditions have been retained under a "general" heading to be included in all certifications and compliance with these conditions will be required as applicable.

10.0 AGENCY COMMENTS (OTHER THAN AFFECTED AGENCIES) AND COMMENTS FROM THE PUBLIC

10.1 Division of Emergency Management

The Division of Emergency Management was not required to file a report, but was included in the review process of the application. The Division of Emergency Management is involved in the development of the State of Florida Radiological Emergency Management Plan included as part of the State of Florida's Comprehensive Emergency Management Plan (CEMP).

10.2 Department of Agriculture and Consumer Services

On December 15, 2008 the Department received comments on the NPDES application for the LNP from Michael Kuhman of the Florida Department of Agriculture and Consumer Services, Shellfish Environmental Assessment Section, Big Bend Gulf Coast District Office (DACS) regarding shellfish water classifications. According to Mr. Kuhman's comments, the proposed surface water discharge of the proposed project is in the "unclassified" waters adjacent to two shellfish harvesting areas (SHA's). "Reclassification of the shellfish harvesting areas will not be necessary if the project is built as proposed. However, if the proposed surface water discharge negatively impacts either of the two SHAs by degrading water quality, reclassification of the affected SHA(s) could be required in the future resulting in a loss of harvestable state shellfish waters."

The DACS NPDES comment letter is attached as Appendix II-8.

10.3 Comments from the Public

Withlacoochee Area Residents, Inc.

The Southwest Florida Water Management District received a letter from the Withlacoochee Area Residents, Inc dated December 14, 2008 regarding the LNP. Amongst others, the Department of Environmental Protection was copied. The purpose of the letter was to request the Southwest Florida Water Management District to make a recommendation to the Department that a specific condition be included in the LNP certification. The suggested condition is for a requirement to ensure full cooperation from the applicant upon execution of any future projects required for the maintenance, preservation or enhancement of surface waters of the State, to

include modifications of the intake structure used for cooling water systems in the vicinity of the Cross Florida Barge Canal. The SWFWMD did not adopt this condition as part of its agency report. A condition of certification has been included by the Department in consideration of the stated concerns.

A copy of the letter to SWFWMD is attached as Appendix II-9.

Other Comments

The Department, either through the Office of Citizens Services or direct contact, received (or was copied on) 9 written comments/information requests via email and 4 via U.S. postal service between June 6 and October 31, 2008. Some of these comments were in regards to the proposed railroad spur which has been removed from the application and is no longer being requested in this certification.

11.0 VARIANCES

No variances to non-procedural regulations of reviewing agencies would be necessary to implement the construction and operation of Levy Nuclear Plant and related facilities.

12.0 CONCLUSIONS AND RECOMMENDATIONS

12.1 Construction Impacts

Construction of the proposed facilities necessary to implement the LNP would have the following impacts:

- 1) The Levy Nuclear Plant will occupy approximately 300 acres including two pressurized water reactor nuclear units, intake and discharge pipelines, spent-fuel storage facilities, and other associated facilities. Direct environmental impacts to wetlands due to construction related activities will be offset through mitigation.
- 2) According to the applicant, the Levy Nuclear Plant will provide economic benefits for Levy County.
- 3) Based on the applicant's analysis and proposal, an acceptable level of service will be maintained on U.S. Hwy 19.

12.2 Operational Impacts

- 1) Completion of the LNP project will fulfill a determined need for electricity.
- 2) Minimal sources of regulated air pollutants will result from the project as compared to other types of power plants. Additionally, significant reductions in regulated air pollutants will occur following the shutdown of Crystal River Units 1 and 2.
- 3) Direct water discharges resulting from the project will be combined with discharges at the Crystal River Energy Center. Furthermore, following the initial re-fueling cycle of Levy Units 1 and 2, Crystal River coal-fired units 1 and 2 will be shut down. Specific requirements for monitoring and quantifying potential impacts have been added as proposed Conditions of this Certification. Additional and/or similar requirements will be included in the NPDES permit.

12.3 Agency Conclusions

The following table 3 includes the recommendations of approval or denial from each of the affected agencies.

Table 5. Agency Recommendations

AGENCY	APPROVAL	DENIAL
PSC	√	
DCA	√	
SWFWMD	√	
Levy County	√	
FWC	√	
WRPC	√	
DOT	√	
DEP	√	

- 1) The Public Service Commission determined there is a specific need for the project
- 2) The Department of Community Affairs recommends approval of the project.
- 3) The Southwest Florida Water Management District recommends approval subject to proposed Conditions of Certification regarding potential impacts to ground water.
- 4) Levy County determined that the LNP project is consistent with and in compliance with the county's land use plans and zoning ordinances. Approval of the project was recommended subject to proposed Conditions of Certification.
- 5) The Fish and Wildlife Conservation Commission identified additional monitoring requirements for impacts to surface waters. Approval of the LNP project was subject to specific Conditions.
- 6) The Withlacoochee Regional Planning Council did not object to approval of the project.
- 7) The DOT recommended certification based on the contention that the applicant would meet all of their recommended conditions of certification.
- 8) Based on the application and subsequent submittals, the Department of Environmental Protection has reasonable assurance that the LNP will be able to comply with applicable agency standards and criteria as long as compliance with the proposed Conditions of Certification (attached as Appendix I) is achieved.

12.4 Overall Recommendation

The Department's recommendation is, at least in part, based upon recommendations included in the agencies' reports required by 403.507(2)(a), F.S. Neither the failure of any agency to submit a report nor the inadequacy of a report, are grounds to deny or condition certification. (403.507(6), F.S.)

If Progress Energy Florida, as the applicant, agrees to abide by the conditions of certification, attached and incorporated herein, the Department would recommend certification of the Levy Nuclear Plant.

DONE AND ISSUED this 12th day of January 2009, at Tallahassee



Michael P. Halpin, P.E.

Siting Program Manager

Appendix I
Proposed Conditions of Certification

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Levy Nuclear Power Plant
Units 1 & 2
Progress Energy Florida

Proposed
CONDITIONS OF CERTIFICATION

Plant and Associated Facilities
And
Transmission Lines

Certified XX/XX/XX

TABLE OF CONTENTS

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES GENERAL and COMMON CONDITIONS

I.	CERTIFICATION CONTROL.....	1
II.	APPLICABLE RULES	2
III.	DEFINITIONS.....	2
IV.	DESIGN AND PERFORMANCE CRITERIA	4
V.	FACILITIES OPERATION	5
VI.	RECORDS MAINTAINED AT THE FACILITY	5
VII.	CHANGE IN DISCHARGE OR EMISSIONS	5
VIII.	RIGHT OF ENTRY/MONITORING	5
IX.	PROCEDURES FOR POST-CERTIFICATION SUBMITTALS	6
	A. PURPOSE OF SUBMITTALS	6
	B. FILINGS	6
	C. COMPLETENESS	7
	D. INTERAGENCY MEETINGS.....	7
	E. DETERMINATION OF COMPLIANCE.....	7
	F. COMMENCEMENT OF CONSTRUCTION	7
	G. WATER QUALITY CERTIFICATION	8
	H. COASTAL ZONE CONSISTENCY	8
	I. REVISIONS TO DESIGN PREVIOUSLY REVIEWED FOR COMPLIANCE.....	8
	J. VARIATION TO SUBMITTAL REQUIREMENTS	8
	K. DISPUTES	8
X.	DISPUTE RESOLUTION	8
XI	SEVERABILITY	9
XII.	ENFORCEMENT.....	9
XIII.	REVOCATION OR SUSPENSION.....	9
XIV.	SAFETY 9	
XV.	CIVIL AND CRIMINAL LIABILITY	9
XVI.	PROPERTY RIGHTS.....	10
XVII.	PROCEDURAL RIGHTS.....	11
XIII.	MODIFICATION OF CERTIFICATION	11
XIX.	TRANSFER OF CERTIFICATION.....	12
XX.	EROSION/RUNOFF CONTROL	12

XXI.	CONSTRUCTION PRACTICES.....	12
A.	OPEN BURNING	12
B.	SOLID WASTES	13
C.	HAZARDOUS SUBSTANCES AND SPILLS.....	13
XXII.	HERBICIDES	13
XXIII.	DEPARTMENT OF TRANSPORTATION.....	13
A.	POST-CERTIFICATION REVIEWS OF FDOT MATTERS	13
1.	<i>Access Management to the State Highway System:</i>	<i>13</i>
2.	<i>Overweight or Overdimensional Loads:.....</i>	<i>13</i>
3.	<i>Use of State of Florida Right-of-Way or Transportation Facilities:.....</i>	<i>14</i>
4.	<i>Standards:.....</i>	<i>14</i>
5.	<i>Drainage:.....</i>	<i>14</i>
6.	<i>Use of Air Space:</i>	<i>14</i>
7.	<i>Level of Service on State Roadway Facilities</i>	<i>15</i>
8.	<i>Railroad Spur</i>	<i>15</i>
B.	BEST MANAGEMENT PRACTICES.....	16
XXIV.	DEPARTMENT OF STATE - DIVISION OF HISTORICAL RESOURCES	16

Section B. Plant Specific Conditions

XXV.	DEPARTMENT OF ENVIRONMENTAL PROTECTION.....	17
A.	FLOOD CONTROL PROTECTION.....	17
B.	TOXIC, DELETERIOUS OR HAZARDOUS MATERIALS	17
C.	FEDERAL PERMITS	17
1.	<i>Industrial Wastewater Discharge Permits.....</i>	<i>17</i>
2.	<i>Air Permits.....</i>	<i>18</i>
D.	RADIOLOGICAL	18
1.	<i>Decommissioning.....</i>	<i>18</i>
2.	<i>Emergency Plan.....</i>	<i>18</i>
3.	<i>Radiological Release Limitations</i>	<i>19</i>
4.	<i>Monitoring</i>	<i>19</i>
5.	<i>Interagency Agreement.....</i>	<i>20</i>
6.	<i>Reservation of Legal Rights.....</i>	<i>20</i>
7.	<i>Annual Radiological Environmental Operating Report</i>	<i>20</i>
8.	<i>Notification of NRC License</i>	<i>20</i>

E.	POTABLE WATER SUPPLY SYSTEM	20
F.	SOLID WASTE	21
G.	STORMWATER/WASTEWATER DISCHARGES	21
H.	WATER FACILITIES GROUNDWATER MONITORING REQUIREMENTS.....	22
I.	WETLANDS MITIGATION.....	25
J.	WITHLACOOCHEE RIVER.....	25
K.	COASTAL AND AQUATIC MANAGED AREAS	25
L.	INCORPORATION OF SEPARATE ERP LICENSES OBTAINED PRIOR TO CERTIFICATION	26
XXVI.	SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT	26
A.	SPECIAL CONDITIONS.....	26
1.	<i>Submit Reports/Data.....</i>	<i>27</i>
2.	<i>Environmental Impacts, Monitoring and Mitigation</i>	<i>27</i>
3.	<i>Alternative Water Supply Implementation</i>	<i>29</i>
4.	<i>Aquifer Testing and Groundwater Impact Analysis.....</i>	<i>30</i>
5.	<i>Compliance Reporting</i>	<i>31</i>
6.	<i>Pumpage Reporting</i>	<i>31</i>
7.	<i>Distribution Flexibility</i>	<i>33</i>
8.	<i>Water Quality Sampling</i>	<i>34</i>
9.	<i>Wells</i>	<i>37</i>
B.	STANDARD CONDITIONS:	38
XXVII.	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	40
A.	LISTED-SPECIES CONDITIONS.....	40
1.	<i>General Listed-Species Surveys.....</i>	<i>41</i>
2.	<i>Gopher Tortoise.....</i>	<i>41</i>
3.	<i>Bald Eagle</i>	<i>42</i>
4.	<i>Florida Scrub-Jay.....</i>	<i>42</i>
5.	<i>Red-Cockaded Woodpeckers</i>	<i>43</i>
6.	<i>Avian Protection Plan.....</i>	<i>43</i>
7.	<i>Florida Manatee</i>	<i>43</i>
B.	BIOLOGICAL SURVEY AND MONITORING CONDITIONS	45
1.	<i>Cross Florida Barge Canal and Withlacoochee River Survey and Monitoring</i>	<i>45</i>
2.	<i>Levy Nuclear and Crystal River Energy Complex Discharge Survey and Monitoring</i>	<i>47</i>
C.	MITIGATION	49
1.	<i>Cross Florida Barge Canal and Withlacoochee River</i>	<i>49</i>

2.	<i>Crystal River Combined Discharge</i>	50
XXVIII.	LEVY COUNTY – PLANT REQUIREMENTS	51
A.	DOCUMENTATION/SUBMITTALS REQUIREMENTS	51
B.	BUILDING/CONSTRUCTION FEES	53
C.	IMPACT FEES	53
D.	CONSTRUCTION AND OPERATION	54
E.	DRIVEWAY ACCESS	55
F.	HEAVY HAUL ROAD	56
XXIX.	WITHLACOOCHEE REGIONAL PLANNING COUNCIL	58
A.	EMERGENCY PREPAREDNESS	58
B.	TRANSPORTATION	58
C.	ECONOMIC DEVELOPMENT	59
D.	NATURAL RESOURCES	59
 SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS		
XXX.	EMERGENCY REPORTING	60
XXXI.	CERTIFIED CORRIDORS	60
XXXII.	SUBMITTALS AND NOTICES REQUIRED BY CONDITIONS	60
XXXIII.	ROW LOCATION	62
XXXIV.	PROCESS FOR REVIEW OF ROW LOCATION	63
XXXV.	DRAINAGE AND EROSION CONTROL	64
A.	MAINTENANCE OF DRAINAGE/HYDROPERIOD	64
B.	EROSION/RUNOFF CONTROL	64
XXXVI.	ELECTRIC AND MAGNETIC FIELD EFFECTS	65
A.	BEE HIVES	65
B.	RADIO INTERFERENCE	65
C.	ELECTRIC AND MAGNETIC FIELDS	65
XXXVII.	DEPARTMENT OF ENVIRONMENTAL PROTECTION	65
A.	SUBMITTALS FOR ACTIVITIES WITHIN WETLANDS OR OTHER SURFACE WATERS	65
B.	CONSULTATION WITH WETLAND AGENCIES	66
C.	REDUCTION AND ELIMINATION OF IMPACTS	66
1.	<i>Access Roads, Culverts, and Structures</i>	66

2.	Wetland Clearing.....	67
D.	MITIGATION	67
E.	GREENWAYS AND TRAILS	69
XXXVIII.	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	70
A.	LISTED SPECIES OCCURRING OR POTENTIALLY OCCURRING IN THE CORRIDORS 70	
B.	GENERAL LISTED SPECIES SURVEY.....	70
C.	GOPHER TORTOISE	71
D.	BALD EAGLE.....	71
E.	RED-COCKADED WOODPECKER.....	72
F.	AVIAN PROTECTION PLAN	72
XXXIX.	DEPARTMENT OF STATE - DIVISION OF HISTORICAL RESOURCES	72
XL.	SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT	73
XLI.	ST.JOHN'S RIVER WATER MANAGEMENT DISTRICT	74
XLII.	EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL.....	74
A.	DEVELOPMENT OF REGIONAL IMPACT SECRET PROMISE	74
B.	ROW SURVEY	74
XLIII.	WITHLACOOCHEE REGIONAL PLANNING COUNCIL.....	74
A.	EMERGENCY PREPAREDNESS.....	75
XLIV.	TAMPA BAY REGIONAL PLANNING COUNCIL.....	75
XLV.	HERNANDO COUNTY	75
A.	FINAL DESIGN SUBMITTAL	75
B.	EXISTING INFRASTRUCTURE.....	76
C.	CONSULTATION WITH THE U.S. ARMY CORP OF ENGINEERS (ACOE) ..	76
D.	NOISE	76
E.	LANDSCAPING.....	76
F.	CROSSING OF HERNANDO COUNTY ROW OR OTHER COUNTY PROPERTY 76	
G.	NATURAL GAS PIPELINES	76
XLVI.	LEVY COUNTY – TRANSMISSION LINES	76
A.	SUBMITTALS	76
B.	NOISE	77
C.	COUNTY ROAD 40.....	77
D.	HEAVY HAUL ROAD	78

XLVII.	HILLSBOROUGH COUNTY	80
A.	FINAL DESIGN SUBMITTAL	80
B.	LARGE FACILITIES ORDINANCE	81
C.	PLANNING AND GROWTH MANAGEMENT.....	81
XLVIII.	SUMTER COUNTY	83
XLIX.	CITRUS COUNTY	83
L.	HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION	84
A.	NOISE	84
B.	PARTICULATE MATTER (FUGITIVE DUST)	84
C.	OPEN BURNING.....	85
D.	WASTE MANAGEMENT.....	86
LI.	PINELLAS COUNTY	86
A.	BROOKER CREEK PRESERVE	86
B.	COORDINATION	86
C.	SITE PLAN.....	86
D.	SAFETY AND PROTECTION	86
LII.	CITY OF TAMPA (RESERVED).....	86
LIII.	MARION COUNTY (RESERVED).....	86

List of Attachments

- Attachment 1 Standard Manatee Conditions for In-Water Work (revision 2005)
- Attachment 2 Map of Certified Corridors

List of Appendices

- Appendix A NPDES permit No. FL0633275-001-IW1S/NP
- Appendix B Title V Air Operation Permit xxxxxxxx-xxx-AV
- Appendix C Air Construction Permit PSD-FL-403
- Appendix D Air Construction Permit (BART) 0170004-017-AC
- Appendix E ERP Permit 38-272432-002-ES
- Appendix F Levy County SE Approval

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

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 (PEF) as owner/operator of the Levy Nuclear Plant and associated facilities. PEF shall be responsible for the compliance with the conditions herein. Under the control of these Conditions of Certification PEF may construct, operate, and maintain two 1,150 MW (nominal) Westinghouse AP1000 nuclear reactors, makeup and blowdown pipelines and intake structures, a heavy haul road, two mechanical draft cooling towers, four 4,000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two fire pumps, and other miscellaneous ancillary equipment. The plant is located on approximately 300 acres of the 3,105 acre site in Levy County, Florida.

B. Also under the control of these Conditions of Certification, Progress Energy Florida (PEF) will construct, operate and maintain the following transmission lines as part of the Levy Nuclear Power Plant;

- Two 500-kilovolt (kV) transmission lines, approximately 9 miles (including approximately 2 miles on the plant site and 7 miles on the certified corridor), each connecting the proposed Levy Nuclear Plant Units 1 and 2 switchyard (LNP) in Levy County to the proposed Citrus Substation near US19 and CR488 in Citrus County, also known as the Citrus 1 and 2 transmission lines;
- One 500-kV transmission line, approximately 59 miles, connecting the proposed Levy Nuclear Plant Units 1 and 2 switchyard in Levy County to the proposed Central Florida South Substation near the boundary between Sumter County and the City of Leesburg in Lake County, also known as the Sumter transmission line;
- One 500-kV transmission line, approximately 14 miles, connecting the proposed Levy Nuclear Plant Units 1 and 2 switchyard in Levy County to the Crystal River Energy Complex (CREC) Switchyard in Citrus County, also known as the Crystal River transmission line;
- Two 230-kV transmission lines, approximately 0.75 miles each, connecting the proposed Citrus Substation near US19 and CR488 in Citrus County to the Crystal River East Substation in Citrus County, also known as the Crystal River East 1 and 2 transmission lines;
- One 230-kV transmission line, approximately 38 miles, connecting the Crystal River Energy Complex (CREC) Switchyard in Citrus County to the Brookridge Substation in Hernando County, also known as the Brookridge transmission line (existing 115kV line will be rebuilt and double-circuited onto single structure with new 230kV line);
- One 230-kV transmission line, approximately 3 miles, connecting the Brookridge Substation in Hernando County to the Brooksville West Substation in Hernando County, also known as the Brooksville West transmission line;
- One 230-kV transmission line, approximately 50 miles passing through Polk, Hillsborough and Pinellas Counties, connecting the Kathleen Substation to the Lake Tarpon Substation, also known as the Kathleen transmission line; and
- Two 69-kV construction/administration radial transmission lines, the North line of 375 ft in length and the South line of 4.5 miles in length, providing site and administration power for the proposed Levy Nuclear Plant Units 1 and 2, also known as the Levy North and Levy South transmission lines.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES

GENERAL and COMMON CONDITIONS

C. These Conditions of Certification, unless specifically amended or modified, are binding upon PEF and shall apply to the construction, operation and maintenance of the transmission lines within the certified corridors. 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. In any conflict between any of these Conditions of Certification, the more specific condition governs.

[Section 403.531, and 403.511F.S.]

II. APPLICABLE RULES

The construction and operation of the Certified Facilities shall be in accordance with all applicable non-procedural provisions of Florida Statutes and Florida Administrative Code, including, but not limited to, the non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification: Chapter 403 (Environmental Control), Florida Statutes (F.S.), and Chapters 40D-2 through 4 (Consumptive Use of Water, Regulation of Wells, Individual Environmental Resource Permits), 40D-8 (Water Levels and Rates of Flow), 40D-9 (District Land Use Rules), 40-D21 (Water Shortage Plan), 40-D40 (General Environmental Resource Permits), 62-4 (Permits), 62-17 Part I (Electrical Power Plant Siting), 62-256 (Open Burning), 62-296 (Stationary Sources-Emission Standards), 62-297 (Stationary Sources-Emission Monitoring), 62-301 (Surface Waters of the State), 62-302 (Surface Water Quality Standards), 62-330 (Environmental Resource Permitting), 62-340 (Delineation of the Landward Extent of Wetlands and Surface Waters), 62-345 (Uniform Mitigation Assessment Method), 62-531 (Water Well Contractor Licensing Requirements), 62-532 (Water Well Permitting and Construction Requirements), 62-550 (Drinking Water Standards, Monitoring and Reporting), 62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems), 62-560 (Requirements for Public Water Systems That Are Out of Compliance), 62-600 (Domestic Wastewater Facilities), 62-601 (Domestic Wastewater Treatment Plant Monitoring), 62-604 (Collection Systems and Transmission Facilities), 62-610 (Reuse of Reclaimed Water and Land Application), 62-621 (Generic Permits), 62-650 (Water Quality Based Effluent Limitations), 62-660 (Industrial Wastewater Facilities), 62-699 (Treatment Plant Classification and Staffing), 62-701 (Solid Waste Management Facilities), 62-762 (Aboveground Storage Tank Systems), 62-769 (Florida Petroleum Liability and Restoration Insurance Program), 62-770 (Petroleum Contamination Site Clean-Up Criteria), 62-780 (Contaminated Site Clean-Up Criteria), and 62-814 (Electric and Magnetic Fields), Florida Administrative Code (F.A.C.).

[Section 403.511. F.S.]

III. DEFINITIONS

Unless otherwise indicated herein, the meaning of terms used herein shall be governed by the definitions contained in Chapters 373 and 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these 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, the following shall apply:

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

- A. "Application" shall mean the Site Certification Application (SCA) filed by PEF for the Certified Facilities, as supplemented.
- B. "ARPC" shall mean the Apalachee Regional Planning Council.
- C. "Certified Facility" shall mean the certified electrical power generation facilities and all associated structures, including but not limited to: nuclear steam generating units, transformers, transmission lines, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, and related structures.
- D. "CFRPC" shall mean the Central Florida Regional Planning Council.
- E. "Complete" shall mean the post-certification filing provides the data required by the relevant Condition of Certification.
- F. "DCA" shall mean the Florida Department of Community Affairs.
- G. "DEM" shall mean the Division of Emergency Management.
- H. "DEP" or "Department" shall mean the Florida Department of Environmental Protection.
- I. "DHR" shall mean the Florida Department of State, Division of Historical Resources.
- J. "District-owned lands" shall mean lands owned by the Water Management District at the time of certification.
- K. "DOH" shall mean the Department of Health.
- L. "DOT" shall mean the Florida Department of Transportation.
- M. "ECFRPC" shall mean the East Central Florida Regional Planning Council.
- N. "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 facility or access components or facilities.
- O. "Feasible" or "practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
- P. "FWC" shall mean the Florida Fish and Wildlife Conservation Commission.
- Q. "Licensee" shall mean Florida Power Corporation dba Progress Energy Florida, Inc., which has obtained a certification order for the subject power plant and associated electrical transmission lines.
- R. "Listed species" shall mean the species listed in the Application as endangered, threatened or species of special concern by FWC, the Florida Department of Agriculture and Consumer Services, or the U.S. Fish and Wildlife Service.
- S. "NCFRPC" shall mean the North Central Florida Regional Planning Council.
- T. "NED" shall mean the DEP Northeast District Office.
- U. "NEFRPC" shall mean the Northeast Florida Regional Planning Council.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

- V. "NRC" shall mean the United States Nuclear Regulatory Commission.
- W. "NFWMD" shall mean the Northwest Florida Water Management District.
- X. "PEF" shall mean Progress Energy Florida, the Applicant/Licensee.
- Y. "Post-certification submittal" shall mean a submittal made by the Licensee pursuant to a Condition of Certification.
- Z. "ROW" shall mean the transmission or pipe line right-of-way to be selected by the Licensee within the certified corridor in accordance with the Conditions of Certification.
- AA. "SFRPC" shall mean the South Florida Regional Planning Council.
- BB. "SFWMD" shall mean the South Florida Water Management District.
- CC. "SJRWMD" shall mean the St. Johns River Water Management District.
- DD. "SRWMD" shall mean the Suwannee River Water Management District.
- EE. "SWD" shall mean the DEP Southwest District Office.
- FF. "SWFRPC" shall mean the Southwest Florida Regional Planning Council.
- GG. "SWFWMD" shall mean the Southwest Florida Water Management District.
- HH. "State water quality standards" shall mean the numerical and narrative criteria applied to specific water uses or classifications set forth in Chapter 62-302, F.A.C., as revised through December 7, 2006.
- GG. "TBRPC" shall mean the Tampa Bay Regional Planning Council.
- HH. "Transmission line" as defined in Section 403.522(21), F.S., shall mean one or more of the transmission lines included in the Application, including the Citrus 1 and 2, Crystal River, Sumter, Levy North and South, Brookridge, Brooksville West, Crystal River East 1 and 2, and Kathleen transmission lines.
- II. "TCRPC" shall mean the Treasure Coast Regional Planning Council.
- JJ. "Wetlands" shall mean those areas meeting the definition set forth in Section 373.019(25), F.S., as delineated pursuant to Chapter 62-340, F.A.C., and ratified by Section 373.4211, F.S.
- KK. "WFRPC" shall mean the West Florida Regional Planning Council.
- LL. "WRPC" shall meant the Withlacoochee Regional Planning Council.
- [Section 403.511, F.S.]*

IV. DESIGN AND PERFORMANCE CRITERIA

Certification, including these Conditions of Certification, is predicated upon preliminary design ranges and performance criteria. Final engineering design will be within the ranges described in the Application and explained at the certification hearing. Conformance to those criteria, unless specifically modified in accordance with Section 403.516, F.S., and Rule 62-17.211, F.A.C., is binding upon the licensee in the design, construction, operation and maintenance of the Certified Facilities. In any instance where a conflict occurs between the Application's design criteria and the Conditions of Certification, the Conditions shall prevail.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

[Section 403.531, F.S.]

V. FACILITIES OPERATION

The Licensee shall at all times properly operate and maintain the Certified Facilities 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.

[62-4.160, F.A.C.]

VI. 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 or federally required permit issued by the Department. 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.

[Section 62-4.160, F.A.C.]

VII. CHANGE IN DISCHARGE OR EMISSIONS

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge or emission of any 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 discharge or emission of pollutants, change in fuel, or expansion in generating capacity must be reported by submission of an appropriate application for amendment, certification or modification pursuant to Chapter 403.516, F.S.

[Section 403.516, F.S.]

VIII. RIGHT OF ENTRY/MONITORING

A. Upon presentation of credentials or other documents as may be required by law, the licensee shall allow authorized representatives of DEP or other agencies with jurisdiction over a portion of the Certified Facility:

1. At reasonable times, to enter upon the Certified Facility in order to monitor activities within their respective jurisdictions for purposes of assessing compliance with this certification; or

**SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS**

2. During business hours, to enter the licensee's premises in which records are required to be kept under this certification; and to have access to and copy any records required to be kept under this certification.

B. When requested by DEP, on its own behalf or on behalf of another agency with regulatory jurisdiction, the licensee shall within 10 working days, or such longer period as may be mutually agreed upon by DEP and the licensee, furnish any information required by law, which is needed to determine compliance with the certification. If the licensee becomes aware that relevant facts were not submitted or were incorrect in the Application or in any report to DEP or other agencies, such facts or information shall be corrected promptly.

[Section 403.531, F.S.;62-4.160, F.A.C.]

IX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS

A. 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 the agencies' monitoring of the effects arising from the location of the Certified Facilities and the construction and maintenance of 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.

B. Filings

All post-certification submittals of information by PEF are to be filed with the DEP Siting Coordination Office, the DEP Southwest and Northeast District Offices, and any other agency that is required to receive a submittal by any Condition of Certification. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

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. A summary shall be provided as a separate document for each transmission line. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the DEP Siting Coordination Office and any affected agency or agency subunit to which the submittal is required to be provided, in a sortable spreadsheet, via CD and hard copy, in the format identified below or equivalent.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

**SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS**

C. Completeness

DEP shall promptly review each post-certification submittal for completeness. This review may include consultation with the other agency (ies) receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. DEP's finding of completeness shall specify the area of the Certified Facilities affected, and shall not delay further processing of the post-certification submittal for non-affected areas. PEF may request that DEP Siting Coordination Office hold a meeting within 15 days after submittal to discuss any completeness issues. PEF may continue to supplement the submittal with additional information through the 25th day.

If any portion of a post-certification submittal is found to be incomplete, PEF shall be so notified. Failure to issue such a notice within 30 days after filing of the submittal shall constitute a finding of completeness. Subsequent findings of incompleteness, if any, shall address only the newly filed information.

D. Interagency Meetings

DEP may conduct an interagency meeting with other agencies, which received a post-certification 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 compliance with the Conditions of Certification has been provided. Failure of DEP to conduct an interagency meeting or 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 timeframes for review established by these Conditions. At DEP's request, PEF shall conduct a field inspection with the agency representative in conjunction with the interagency meeting.

E. Determination of Compliance

DEP shall give written notification within 90 days, to the Licensee and the other agency(ies) to which the post-certification information was submitted of its determination whether there is demonstration of compliance with the conditions of certification. If it is determined that compliance with these conditions has not been provided, PEF shall be notified with particularity of the deficiencies and possible corrective measures suggested. Failure to notify PEF in writing within 90 days of receipt of a complete post-certification submittal shall constitute a determination of compliance.

F. Commencement of Construction

If DEP does not object within the time period specified in paragraph E. above, PEF may begin construction pursuant to the terms of the Conditions of Certification and the subsequently submitted construction details.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

G. Water Quality Certification

For each post-certification submittal which addresses matters within DEP's environmental resource permitting jurisdiction, DEP shall provide to the U.S. Army Corps of Engineers (USCOE) a letter stating that the Licensee has met the requirements for 33 United States Code (U.S.C.) 1341. This letter shall be sent concurrently with a determination of compliance pursuant to paragraph E above, or as soon as practicable upon request by PEF more than 90 days after the filing of a complete post-certification submittal addressing matters with DEP's environmental resource permitting jurisdiction.

H. Coastal Zone Consistency

Pursuant to Section 380.23, F.S., DEP's letter to the USCOE under paragraph G above constitutes the state's concurrence that the licensed activity or use is consistent with the federally approved program under the Florida Coastal Management Act.

I. Revisions to Design Previously Reviewed for Compliance

The Licensee shall submit to DEP, for its review, any proposed revisions to the project's site specific design that were previously reviewed for compliance with these Conditions during the post-certification review process. Such submittals shall include the same type of information required for the original submittal and shall be submitted prior to construction/implementation.

J. Variation to Submittal Requirements

DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and PEF may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these Conditions of Certification.

K. Disputes

Any agency which received a post-certification submittal pursuant to these Conditions may dispute a determination that a submittal provides reasonable assurances of compliance with the Conditions of Certification made by DEP on matters within that agency's jurisdiction by following the procedures set forth in Chapter 120, F.S. The agency's statement disputing DEP's determination shall state with particularity the location to which the agency's dispute relates. Work in areas other than the location to which the agency's dispute relates will not be affected by the agency's dispute.

[Sections 403.511, 373.413, 373.416, 120.569, and 380.23, F.S.; 62-17.191, 62-17.201, and 62-17.205, F.A.C.]

X. DISPUTE RESOLUTION

If a situation arises in which mutual agreement cannot be reached between DEP and another agency receiving a post-certification submittal or between DEP and PEF regarding compliance with the Conditions of Certification, 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. PEF or DEP may request DOAH to establish an expedited schedule for the processing of such a dispute.

[Sections 403.511, and 120.57, F.S.]

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

XI 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 circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

[Section 403.511, F.S.]

XII. ENFORCEMENT

A. 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, and 403.514, 403.727, and 403.859 through 403.861, F.S. Any noncompliance by the licensee with a Condition of Certification constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, license termination, license revocation, or license revision. The Licensee is placed on notice that the Department will review this certification periodically and may initiate enforcement action for any violation of these Conditions.

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

[403.141, 403.161 and 403.514, F.S.]

XIII. REVOCATION OR SUSPENSION

The certification shall be final unless revised, revoked or suspended pursuant to law. 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 Certified Facilities shall remain unaffected by such action.

[Section 403.512, F.S.]

XIV. SAFETY

The overall design, layout, and operation of the Certified 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.

XV. CIVIL AND CRIMINAL LIABILITY

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 any other state statutes or regulations which may apply. As provided in Section

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

403.511, F.S., the issuance of this certification conveys neither any vested rights nor any exclusive privileges. Neither does it authorize any injury to human health or welfare, animal or plant life, public or private property or any invasion of personal rights.

This certification does not allow any infringement of federal, state, or local laws or regulations, nor does it allow the Licensee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order or permit from the Department or these Conditions of Certification. 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 or approved programs.

[62-4.160, F.A.C.]

XVI. PROPERTY RIGHTS

A. The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges thereto. The Licensee shall obtain title, lease, easement, or right of use from the State of Florida to any sovereign submerged or other state-owned uplands occupied or utilized by the Certified Facilities.

B. If any portion of the project is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve then the project must comply with the applicable portions of Chapters 18-2, 18-20 and 18-21, F.A.C., and Chapters 253 and 258, F.S. If any portion of the project is located on sovereign submerged lands, the Licensee must submit section G of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the project is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the project is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the activity requires a proprietary authorization. The activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Section 18-2.018 or 18-21.0051, F.A.C.

D. The licensee is hereby advised that Florida law states: “No person shall commence any excavation, construction, or other activity involving the use of sovereign or other state lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use.” Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

E. The terms, conditions, and provisions of the required lease or easement shall be met. Construction of this activity shall not commence on sovereign submerged lands or state owned uplands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed to the satisfaction of the Department.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

[Section 403.511, F.S.; Chapters 253 and 258, F.S., Chapter 3.1.1. of the B.O.R.; 18-2, 18-14, 18-21, 62-343.900(1), Section G, and 62-4.160 and 62-340, F.A.C.; Upland Easement Application and Section G of the Environmental Resource Permit Application Form.]

XVII. 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.

[Chapter 120, F.S.]

XIII. MODIFICATION OF CERTIFICATION

A. Pursuant to Section 403.516(1)(a), F.S., Section 120.569(2)(n), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Department of Environmental Protection to modify, after notice and receipt of no objection by a party or other substantially affected person, any conditions which would not otherwise require approval by from the Siting Board. In addition, the Department is delegated the authority to modify conditions as follows:

1. The Department may modify any condition of this certification after notice and opportunity for hearing except those pertaining to fuel change.

2. The certification shall be modified to conform to subsequent DEP-issued amendments, modifications, or renewals of any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Operation permit, Underground Injection Control (UIC) permit, or National Pollutant Discharge Elimination System (NPDES) permit for the project. In the event of a conflict, the more stringent of the conditions of such permits or of these Conditions of Certification shall be controlling.

3. The Department may grant modifications necessary to meet licensing conditions or requirements imposed on PEF by any federal regulatory agency. The licensee shall notify DEP at least 30 days prior to the issuance of the federal license that would require such a modification, if known, or in any event, as soon as the federal agency notifies the licensee.

4. The Department may authorize the reconstruction of a ROW or Certified Facility necessary to avoid or mitigate an emergency condition. Such a modification shall be obtained only when an emergency replacement must be further modified after the emergency conditions requiring the original reconstruction are no longer present.

B. DEP shall make a good faith effort to give written notice to the parties to the original certification, at their last address of record, of any proposed modification of certification.

C. Any modification to these conditions shall affect only the Certified Facilities that are the subject of the modification request or the Department's proposed order of modification.

[Sections 120.569(2)(n) and 403.516, F.S.; 62-17.211, F.A.C.]

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

XIX. TRANSFER OF CERTIFICATION

This certification is transferable, upon Department approval, to an entity determined to be competent to construct, operate and maintain the Certified Facilities in accordance with these Conditions of Certification. A transfer of certification of all or part of a certified facility shall be initiated by the Licensee's filing with the Department and the parties a notice of intent to transfer certification to a new licensee. The notice of intent shall identify the intended new certification holder or licensee and the identity of the entity responsible for compliance with the certification. The provisions of Chapter 120, F.S., will apply to the Department's approval or denial of the transfer.

[Chapters 120, and 403.511, F.S.; 62-17.211 and 40D-4.351, F.A.C.]

XX. EROSION/RUNOFF CONTROL

1. PEF shall compact or otherwise stabilize any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

2. Grass seed and mulch or sod must be installed and maintained on exposed slopes prior to finalization of construction, and at all times measures must be taken to prevent erosion, sedimentation or turbid discharges into wetlands and or waters of the state, where the soils have been disturbed during construction.

3. To control runoff which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden storm water to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units (NTU) above background in waters of the state. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings, and must be maintained in effective condition at all locations where sediment has the potential to reach nearby wetlands until construction in the area is completed and disturbed soil areas are stabilized. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment-laden runoff. The pH of the runoff shall be kept within the range of the applicable nonprocedural requirements in Rule 40D-4, F.A.C.

4. PEF shall ensure that adjacent properties are not impacted by wind erosion, or emissions of unconfined particulate matter in accordance with Rule 62-296.320(4)(c)1., F.A.C., by taking appropriate measures to stabilize affected areas.

[Section 403.511, F.S.; 40D-4.381, and 62-296.320, F.A.C.]

XXI. CONSTRUCTION PRACTICES

A. Open Burning

Any open burning in connection with initial land clearing shall be in accordance with the non-procedural requirements of Chapter 62-256, F.A.C., Chapter 5I-2, F.A.C., Uniform Fire Code Section 33.101, Addendum. Prior to 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., PEF shall seek approval from the either DEP Southwest or Northeast District Office, as appropriate, whose approval may be granted in conjunction with the Division of Forestry. 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

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES GENERAL and COMMON CONDITIONS

pollution conditions. A copy of any submittal by PEF relating to open burning shall be submitted to Levy County, for any open burning that will take place in Levy County, for informational purposes. No open burning will take place in Hillsborough County.

[Section 403.511, F. S.; 51-2 and 62-256, F.A.C.]

B. Solid Wastes

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

[Section 403.511, F.S.; 62-701, F.A.C.]

C. Hazardous Substances and Spills

1. If hazardous substances are used in the construction or maintenance of the transmission lines, PEF shall provide the DEP with reasonable assurances that such hazardous substances will not enter stormwater drains or waterbodies.

2. Fuel and other petroleum product spills that enter stormwater drains or waterbodies, or fuel and other petroleum product spills that are in excess of 25 gallons shall be contained, cleaned up, and immediately reported to the appropriate DEP District Water Resources Office (NED - ph: 904-807-3302; SWD - ph: (813) 632-7600). Smaller ground surface spills shall be cleaned up as soon as practical.

[Sections 403.511 and 403.414, F.S.; Chapter 40D-4, F.A.C.]

XXII. HERBICIDES

Herbicides applied at the plant site or in any ROW shall only be those registered by the U.S. Environmental Protection Agency and which have state approval. Herbicide application rates and concentrations will be in accordance with label directions and will be carried out by a licensed applicator, meeting all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast application of herbicide shall not be used in the ROW unless effects on non-targeted vegetation are minimized.

[Sections 403.061, 403.088, 487.031 and 487.041, F.S.]

XXIII. DEPARTMENT OF TRANSPORTATION

A. Post-Certification Reviews of FDOT Matters

1. Access Management to the State Highway System:

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

2. Overweight or Overdimensional Loads:

Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the facility, including a transmission line and other associated facilities, 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.

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS

3. 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 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 Florida Department of Transportation's Project Development and Environmental Manual.

U.S. 19/SR 55 and U.S. 41 have been identified as Florida Intrastate Highway System (FIHS) and Strategic Intermodal System's (SIS) facilities. The placement of transmission lines and pipelines should take into consideration the planned widening of these facilities. If future widening is required, the cost of relocating or reconstructing transmission line and pipelines will be borne by the Licensee to the extent required by Section 337.403, F.S., and Rule Chapter 14-46, F.A.C.

4. Standards:

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

5. 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.

6. 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 geographic center of a public-use airport or military airfield in Florida will be required to submit information for an Airspace Obstruction Permit from the Florida Department of Transportation 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 Florida Department of

SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES

GENERAL and COMMON CONDITIONS

Transportation jurisdiction, application will be made by submitting Florida Department of Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

7. Level of Service on State Roadway Facilities

All traffic impacts to State roadway facilities on the FIHS or the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to the requirements of the level of service standards adopted by local governments pursuant to Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code, in accordance with Section 163.3180(10), Florida Statutes. All traffic impacts to State roadway facilities not on the FIHS, the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to adequate level of service standards established by the local governments.

8. Railroad Spur

Any newly proposed railroad crossing must comply with the criteria established in Rule Chapter 14-57, Florida Administrative Code (FAC). The following criteria must be considered in opening a new public highway-rail grade crossing on any state, county, or city roadway:

- a. Safety.
- b. Necessity for rail and vehicle traffic.
- c. Alternate routes.
- d. Effect on rail operations and expenses.
- e. Closure of one or more public railroad-grade crossings to offset opening a new crossing.
- f. Design of the grade crossing and road approaches.
- g. Presence of multiple hacks and their effect upon railroad and highway operations.

The installation of a new public highway-rail grade crossing must have as a minimum roadside flashing lights and gates on all roadway approaches to the crossing. The installation of the crossing surface and signals must be in accordance with current Manual of Uniform Traffic Control Devices (MUTCD), Federal Railroad Administration Rules and Regulations, American Association of State Highway and Transportation Officials (AASHTO) Policy, and the Department's Manual of uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (Florida's Green Book).

Areas of concern to be considered in determining the rail crossing location are as follows:

- a. Roads crossing the tracks at a skewed angle or where the track is curved or superelevated;
- b. Impaired sight distance for motorists and rail engineers;
- c. Highway intersections within 75 feet of the crossing which create a greater potential for accidents and create minimal vehicle storage distance;

**SECTION A. PLANT AND ASSOCIATED TRANSMISSION LINES
GENERAL and COMMON CONDITIONS**

- d. Crossings that are blocked for long periods of time;
- e. Switching movements or turnouts;
- f. Different elevations of tracks.

B. Best Management Practices

1. 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.; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; and Florida Department of Transportation's Utility Accommodation Manual, whichever is more stringent.

2. It is recommended that PEF encourage transportation demand management techniques by doing the following:

- a. Placing a bulletin board on site at staging and show-up areas for car pooling advertisements.
- b. Requiring that heavy construction vehicles remain onsite or at staging areas for the duration of construction to the extent practicable.

3. If the licensee uses contractors for the delivery of any overweight or overdimensional loads to the site during construction, PEF 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.

[Chapters 14-26, 14-46, 14-86, 14-94, 14-96, and 14-97, F.A.C.; Section 316, F.S.; Sections 337.401-404, F.S.; 14 C.F.R. Part 77.]

XXIV. DEPARTMENT OF STATE - DIVISION OF HISTORICAL RESOURCES

If historical or archaeological artifacts are discovered at any time within the project site, the Licensee shall notify the DEP Siting Office, the applicable DEP District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073.

SECTION B. PLANT SPECIFIC CONDITIONS

The conditions in Section B relate to the plant and associated facilities except the transmission lines. The conditions relating to transmission lines can be found in Section C.

XXV. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A. Flood Control Protection

Any construction of new facilities for the certified plant and associated facilities shall be protected from flood damage by construction in such a manner as to comply with the appropriate Levy County flood protection requirements or by flood proofing or by raising the elevation of the facilities above the 100-year flood level, whichever is more stringent. However, existing facilities and in-water structures are not required to comply with such flood control protection standards.

B. 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 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. Specific criteria are established for such components in Section 62-520.420, F.A.C.

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 Northeast 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 Material Safety Data 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.

[62-520.420, F.A.C.]

C. Federal Permits

1. Industrial Wastewater Discharge Permits

Any discharges during construction and operation shall be in accordance with all applicable provisions of NPDES permit No. FL0633275-001-IW1S/NP (attached as Appendix A) as well as any subsequent modifications, amendments and/or renewals.

SECTION B. PLANT SPECIFIC CONDITIONS

2. Air Permits

The operation of the Levy Nuclear Plant shall be in accordance with all applicable provisions of Title V Air Operation Permit xxxxxxxx-xxx-AV, and air construction permit PSD-FL-403. Title V Air Operation Permit xxxxxxxx-xxx-AV, and air construction permit PSD-FL-403 are incorporated by reference herein as part of this Certification and attached as Appendix B and Appendix C.

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 xxxxxxxx-xxx-AV 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.

Note: This condition will be modified upon Title V issuance to reflect the Title V permit number.

In accordance with air construction permit 0170004-017-AC (Attached as Appendix D) which includes a determination of Best Available Retrofit Technology (BART), Unit 1 and Unit 2 shall cease to be operated as coal-fired units by December 31, 2020. This date assumes timely licensing, construction and commencement of commercial operation of the Licensee's proposed new nuclear units (Levy County Units 1 and 2). The shutdown (or repowering) of Units 1 and 2 coal-fired units is contingent upon completion of the first fuel cycle for Levy County Unit 2. The Licensee shall timely advise the Department of any developments that would delay the shutdown (or repowering) of Units 1 and 2 beyond the completion of the first fuel cycle for Levy County Unit 2.

[Rule 62-296.340 (BART), F.A.C., and Applicant Request]

D. Radiological

1. Decommissioning

Upon application to the U.S. Nuclear Regulatory Commission (NRC) for authority to decommission the plant, the Licensee 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 plan reveal deficiencies, the Department shall bring such deficiencies to the attention of the Licensee 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 and the State Department of Health, Bureau of Radiation Control, and Levy, Citrus and Marion Counties in biennial updating of the emergency procedures and evacuation planning as necessary, including but not limited to hurricane evacuations, improvements in communication and warning systems, and in updating predicted plume overlays.

SECTION B. PLANT SPECIFIC CONDITIONS

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 Licensee must comply with all applicable regulations, requirements, and standards of the 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, as presently in effect or hereafter amended.

The Department has the statutory duty to insure that the location and operation of Levy Nuclear Plant Unit 1 and Unit 2 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 the Levy Nuclear Plant 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 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 Licensee with NRC standards and technical specifications, to assure that the construction and operation of the Levy Nuclear Plant 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 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 Licensee 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. Should such appropriate enforcement action not be forthcoming, and the Department determines that such enforcement action is necessary to insure that adverse effects on human health and the environment by continued operation of the Levy Nuclear Plant are minimized, the Department reserves the right to take appropriate State enforcement action pursuant to Chapter 403, Florida Statutes, against the applicant for violation of any of the above radiological release limitations on the grounds that the violation of such limitations constitutes a violation of this express condition of certification.

4. Monitoring

The Licensee shall comply with the most recent State Department of Health Environmental Surveillance Agreement or its equivalent or future replacement. Should the State Department of Health determine that additional monitoring is required, it may take

SECTION B. PLANT SPECIFIC CONDITIONS

appropriate action to require such monitoring pursuant to NRC authority by modification of this condition of certification.

5. Interagency Agreement

Pursuant to NRC regulations, the licensee shall implement an Emergency Response Capability Agreement with the Florida Department of Health, a copy of which shall be submitted to the Siting Office.

6. Reservation of Legal Rights

The Department recognizes that the NRC has exclusive authority in certain areas related to the construction and operation of the Levy Nuclear Plant. These conditions of certification do not 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 Licensee's responsibility to comply with all applicable NRC requirements. Licensee's acceptance of these radiological conditions of certification does not constitute a waiver by Licensee of any claim that any such radiological conditions are invalid under the doctrine of federal preemption or otherwise by law.

7. Annual Radiological Environmental Operating Report

Upon submittal to the NRC, a copy of the Annual Radiological Environmental Operating Report for the Levy Nuclear Plant shall be provided to the Department's Siting Coordination Office.

8. Notification of NRC License

The licensee shall notify the Department's Siting Coordination Office of any amendments, modification, or renewals of NRC-issued Operating Licenses.

E. Potable Water Supply System

1. The potable water supply system shall be designed and operated in conformance with Chapters 62-550, Lead & Copper Rule 40 CFR 141, Subpart I, 62-555, 62-560, and 62-699 F.A.C. (<http://www.dep.state.fl.us/water/rulesprog.htm#dw>). Information as required in Chapters 62-550, Lead & Copper Rule 40 CFR 141, Subpart I, 62-555, 62-560, and 62-699, F.A.C., shall be submitted to the Department prior to construction and operation of any potable water system. The operation of the potable water supply system shall be certified in accordance with Chapters 62-602 and 62-699, F.A.C. All monitoring reports shall be submitted to the Department's Northeast District Office, Potable Water Section and the Siting Office.

2. All the potable well(s) shall be constructed according to public well standards found in 62-532, F.A.C.

3. All potable well(s) shall meet the required setbacks as found in 62-555.312, F.A.C.

4. The list of requirements for a Preliminary Design Report (PDR) can be found in 62-555.520(4), F.A.C. A preliminary design report or specifications, details, and design drawings are required for approval of a potable water system and shall be submitted to the Department's Northeast District Office, Potable Water Section and the Siting Office prior to construction and use.

SECTION B. PLANT SPECIFIC CONDITIONS

5. This system will be a non-transient non-community public water system. A demonstration of financial, managerial, and technical capacity (capacity development) form must be completed and submitted to the Department's Northeast District Office, Potable Water Section and the Siting Office. Rule 62-555.525, F.A.C.

[62-550, Lead & Copper Rule 40 CFR 141, Subpart I, 62-555, 62-560, and 62-699, F.A.C.]

F. Solid Waste

1. The licensee is not authorized to process or dispose solid waste on-site. Except for temporary, short-term storage in designated containers, storage of solid waste on-site shall not be allowed unless specifically authorized through a modification to this certification.

2. The applicant shall collect and store solid waste from routine operations and/or construction and demolition activities in vendor provided containers, and shall dispose the waste at authorized off-site facilities in accordance with the Site Certification Application and Chapter 62-701, F.A.C.

[62-701, F.A.C.]

G. Stormwater/Wastewater Discharges

1. At least 180 days prior to construction of the facility or a portion of the project that may affect stormwater, the licensee shall submit final plans for the surface water management system for that portion of the facility to the Siting and DEP Northeast District Offices for review and approval. The submittal shall include calculations, drawings, reports and permit applications with information for the site, transmission lines, associated access roads and structure pads, drainage analysis, stormwater management system, wastewater treatment and disposal, etc. Floodplain analysis shall address flow rates on the site using a minimum of three cross-sections and provide a tabular summary. The data summary should include stage or water elevation, basin areas and volumes of cut and fill and calculations of the compensating storage for pre and post conditions. Site plans shall show the stage as the difference between the 100 year storm event and the elevation of the seasonal high water level in NGVD 29 basis.

[Rules 40E-4, 40E-40, and SWFWMD Basis of Review]

2. At least 48 hours prior to commencement of any construction at the site, the licensee shall submit to the Department an "Environmental Resource Permit Construction Commencement" notice (Form No. 62-343.900(3), F.A.C.) indicating the actual start date and the expected completion date. When the duration of construction will exceed one year, the licensee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.

[Rules 40E-4.381, and 62-343.900, F.A.C.]

3. Within 30 days after completion of construction of a stormwater management system, the licensee shall submit to the Siting Office and copy the DEP NED Office a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing the supplied "Environmental Resource Permit As-Built Certification by a Registered Professional" (Form No. 62-343.900(5), F.A.C.) and a copy of the "as-built" drawings. The statement of completion and certification shall be

SECTION B. PLANT SPECIFIC CONDITIONS

based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that the system is ready for inspection. Additionally, if deviations from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

[Rules 40E-4.381; and 62-343.900, F.A.C.]

4. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this license or a formal determination under section 373.421(2), F.S., provides otherwise.

[Rule 40E-4.381, F.A.C.]

5. Prior to start of construction, the licensee 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 Multi-Sector Generic Permit (MSGP) for stormwater discharges (as applicable) to the DEP NPDES Stormwater Notices Center. Prior to the commencement of construction, the licensee shall provide to the Department the appropriate wastewater, dewatering, construction and stormwater permit application(s) to detail and identify treatment and discharges to ground and/or surface waters.

6. All information submitted must be signed and sealed by a professional engineer registered in the State of Florida in accordance with Chapter 62-4.050, F.A.C., and Chapter 471, Florida Statutes.

H. Water Facilities Groundwater Monitoring Requirements

Although there are no proposed direct discharges of contaminants to ground water, there are specific industrial processes and operations at power plants that may have a potential for ground water contamination. Therefore, the following are requirements pursuant to Chapter 62-520, F.A.C. The DEP Northeast District Office has monitoring and compliance jurisdiction over any on-site discharges that may occur. The DEP Southwest District Office has monitoring and compliance jurisdiction over discharges associated with any Industrial Waste permit with outfalls to the Crystal River Energy Complex.

1. A minimum of 18 months prior to initial operation of the facility, the Licensee shall submit two copies each of a final Ground Water Monitoring Plan to the Ground Water Sections of the Department's Northeast District Office as a post-certification submittal, in accordance with Rule 62-520.600, F.A.C. No fees will be required. Pursuant to Chapters 492 and 471, F.S., the ground water monitoring plan shall be signed and sealed by the professional geologist or professional engineer who prepared or approved it. The Department has 30 days to review the submittal, and send out a request for additional information, if necessary. Approval will be determined within 90 days of submittal, once the plan is considered complete.

2. Excluding solid waste sites and stormwater ponds, the final Ground Water Monitoring Plan shall address pre-operational (i.e.: prior to initial startup of facility operations) and post-operational (i.e.: during facility operations) monitoring of all lined systems (i.e.:

SECTION B. PLANT SPECIFIC CONDITIONS

wastewater discharge basins, cooling water conveyance systems, runoff sites, and raw and spent fuel storage sites, and all basins, sumps, or tanks that contain waste disposal liquids). There shall be no unlined storage or disposal sites without prior approval. Solid waste requirements shall be in accordance with the specific section(s) of the conditions of certification.

3. The final Ground Water Monitoring plan must be a comprehensive submittal tailored to water facilities operations including pertinent information from previous proposals in the original Site Certification Application, the locations of proposed background monitor wells (i.e.: wells labeled MWB-1, MWB-2, etc.) and down gradient monitor wells (i.e.: wells labeled MWD-3, MWD-4, etc.) in relation to property lines, basins, buildings, ponds, etc. on an aerial photo. The following information shall also be included: well construction details and well depths; ground water flow direction(s); frequency of monitoring, parameters and determinations for parameters, water sampling and chemical analysis protocol; pre- and post-operational monitoring requirements; potential offsite & onsite influences of contamination sources; soil types and lithology above and below water level; ½ mile survey of potable wells around the facility; cones of depression of water supply wells or wellfields within the facility that may affect the monitor well locations; and any other information that is significant to this project.

4. Once the Ground Water Monitoring Plan is approved, it will become part of the Site Certification by reference. Requests for modifications to the plan must be submitted to the Department's Northeast District, and the Siting Offices. The Department may make modifications to the plan after periodic reviews of the facility's files.

5. The Licensee shall give at least 72-hours notice to the Department's Northeast Office, prior to the installation of any monitoring wells detailed in the approved Groundwater Monitoring Plan.

6. Any new monitor well(s) identified in the approved Ground Water Monitoring Plan shall be installed, a minimum of 12 months prior to initial operation of the facility.

7. Prior to construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location in order to establish the well depth and screen interval.

8. Within 30 days after installation of a new monitoring well, the Licensee shall submit to the Department's Northeast District Offices detailed information on the well's location and construction on DEP Form(s) 62-522.900(3), Monitor Well Completion Report.

9. All ground water monitoring wells shall be constructed and developed in accordance with Department guidelines and installed by a licensed water well contractor.

10. Due to the facility having lined systems with no direct discharges to ground water, excluding stormwater, a zone of discharge is not allowed.

11. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., and all primary and secondary standards in Rule 62-550, F.A.C. shall be met at the down gradient wells, with the exception of condition 14. below.

12. Twelve months prior to facility operation, the Licensee shall begin sampling the pre-operational monitoring wells in accordance with the conditions of certification

SECTION B. PLANT SPECIFIC CONDITIONS

and the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C.

13. Upon placing facility in operation, the Licensee shall begin sampling the post-operational monitoring wells in accordance with the conditions of certification and the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C.

14. If the concentration for any monitoring parameter in the natural background quality of the ground water is greater than the state standard, or in the case of pH is also less than the minimum, the representative natural background quality shall be the prevailing standard.

15. Water levels shall be recorded before evacuating monitor wells for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.01 foot.

16. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples.

17. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's Northeast District Office as being more representative of ground water conditions.

18. The Licensee shall ensure that all laboratory analytical data are from a certified laboratory that meets the requirements of Chapter 62-160, F.A.C. Minimum detection limits shall be at or below the ground water standards and/or criteria.

19. The Licensee shall ensure that all samples are taken by appropriately trained personnel following the Department approved Standard Operating Procedures Manual for Field Sampling, in accordance with Rule 62-160, F.A.C.

20. Ground water monitoring results shall be submitted on Form 62-620.910(10), or such other format as approved by the department, in accordance with the following schedule deadlines, where applicable. A customized Ground Water Monitoring Well Report with specific parameters will be generated and provided to the Licensee for use, after approval of the Ground Water Monitoring Plan. If the Licensee elects to enter the monitoring results into the Department's electronic system, the hard copy of the report is not required to be submitted for that monitoring period.

Sample Period	Monthly	Quarterly	Semi Annual	Annual	Report Deadline
(January-March)	Monthly sampling results are due 30 days after last day of the monitoring month.	X			April 28 th
(April-June)		X			July 28 th
(July-September)		X			October 28 th
(October-December)		X			January 28 th
(January-June)			X		July 28 th
(July-December)			X		January 28 th
(January-December)				X	January 8th

SECTION B. PLANT SPECIFIC CONDITIONS

21. If any monitoring well becomes damaged or cannot be sampled for some reason, the Licensee shall notify the Department's Northeast District Office immediately and a written report shall follow within seven days detailing the circumstances and remedial measures taken or proposed. Repair or replacement of monitoring wells shall be approved in advance by the Department's Northeast District Office.

22. All piezometers and wells not part of the approved ground water monitoring plan are to be plugged and abandoned in accordance with Rule 62-532.500(4), F.A.C., unless there is intent for their future use.

23. All correspondence, reports, plans and summaries pertaining to ground water monitoring shall be directed to the Ground Water Section of the Department's Northeast District Office with copies to the Siting Office.

I. Wetlands Mitigation

Within 180 days following certification, the licensee shall provide to the Department for review and approval, refinements to the Wetland Mitigation Plan submitted on December 26, 2008, that fully offset the functional loss, as required by 62-345, F.A.C., all impacts to jurisdictional wetlands remaining after minimization and avoidance to those jurisdictional wetlands has been demonstrated. Mitigation will be in accordance with applicable rules and any "Comprehensive Mitigation Plan" approved by the Department.

[62-345, F.A.C.]

J. Withlacoochee River

In the event that any state or federally funded projects required for the maintenance, preservation or enhancement of surface waters of the State require modifications to the Cross Florida Barge Canal, the Department may choose to modify this certification after notice and opportunity for hearing.

K. Coastal and Aquatic Managed Areas

Following certification, Progress Energy shall submit a Crystal Bay Surface Water Monitoring Plan pursuant to Chapter 62-302, F.A.C to the DEP Office of Coastal and Aquatic Managed Areas and the DEP Siting Office. The plan shall include the following components:

1. Salinity and temperature monitoring within the surface waters of the Bay, including areas in close proximity to St. Martins Marsh and Big Bend Seagrasses Aquatic Preserves;
2. Nutrient sampling for Total Phosphorus (TP), and Nitrogen (TN), Total Suspended Solids), and Dissolved Oxygen (DO) within the surface waters of the Bay, including areas in close proximity to both Aquatic Preserves; and
3. Specific monitoring locations, sampling frequencies, methods, specific parameters to be monitored.

SECTION B. PLANT SPECIFIC CONDITIONS

If the Department determines that the pre- and post operation indicate potential adverse changes in the surface water quality in Crystal Bay, then the Department may propose additional measures to evaluate or to abate such impacts to the Crystal Bay estuary.

Water quality monitoring reports should be made readily available to St. Martins Marsh and Big Bend Seagrasses Aquatic Preserves.

Note: The Licensee may request modification of the above conditions upon issuance by the Department of Final NPDES permit FL0633275-001-IW1S/NP.

[62-302.700(9) (f) 4, F.A.C. and 62-302.700(9) (f) 38, F.A.C.]

L. Incorporation of Separate ERP Licenses Obtained Prior to Certification

The operation of the Levy Nuclear Plant shall be in accordance with all applicable provisions of ERP Permit 38-272432-002-ES. ERP Permit 38-272432-002-ES is incorporated by reference herein as part of this Certification and attached as Appendix E.

Upon certification by the Siting Board, the licensee shall comply with the substantive provisions and limitations set forth in ERP Permit 38-272432-002-ES as part of these Conditions of Certification. Such provisions shall be fully enforceable as conditions of this certification and may only be amended in accordance with the provisions herein. Any violation of such provisions shall be a violation of these Conditions of Certification.

XXVI. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

GROUNDWATER WITHDRAWAL QUANTITIES AND FACILITIES

District ID/ Owner ID	Water Allocation Average Gallons per Day	Well Casing/Depth Feet	STATUS
1/PW-1	395,000	100/300	PROPOSED
2/PW-2	395,000	100/300	PROPOSED
3/PW-3	395,000	100/300	PROPOSED
4/PW-4	395,000	100/300	PROPOSED
TOTAL ALL WELLS	1,580,000		

[Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., District Basis of Review (BOR) Sections 3.2, 3.4, 4.1, 4.4, 4.8, 4.10]

A. Special Conditions

All conditions referring to the District shall mean the

SECTION B. PLANT SPECIFIC CONDITIONS

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34604-6899

1. Submit Reports/Data

a. All reports and data required by these conditions of certification shall be submitted to the District (and copied to the DEP Siting Office) according to the due dates contained in the specific condition. If the report or data is received on or before the tenth day of the month following data collection, it shall be deemed as a timely submittal. The Licensee may use the District's website to submit data, plans or reports online. To set up an account, the Licensee can address the request to permitdata@watermatters.org. All mailed reports and data are to be sent to:

Permit Data Section, Regulation Performance Management Department
Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34604-6899

Submission of plans and reports: Unless submitted online or otherwise indicated in the special condition, the original and two copies of each plan and report required herein.

Submission of data: Unless submitted online or otherwise indicated in the special condition, an original (no copies) is required for data submittals such as meter readings and/or pumpage, rainfall, water level, evapotranspiration, or water quality data

b. Within sixty (60) days, the Licensee shall designate one individual responsible for receiving and responding to District notices and correspondence related to these conditions of certification. Notification to the District of the designee, including address and telephone number shall be in written form.

[Sections 373.016, 373.219, 373.236, F.S.; Rules 40D-2.301(1) and 40D-2.381(1), (2) and (4), F.A.C.; BOR Section 6.2]

2. Environmental Impacts, Monitoring and Mitigation

a. Environmental Assessment

i. Environmental Monitoring Plan

Licensee shall submit an Environmental Monitoring Plan for District review and approval within 90 days of conditions of certification issuance. The monitoring plan, at a minimum shall utilize the District's Wetland Assessment Procedure to evaluate the relative condition of surface waters and wetlands in areas potentially affected by water withdrawals of Licensee. Upon District approval, the plan shall be implemented and monitoring reports shall be provided in the annual monitoring report required by Condition No. 3 E. After five years of monitoring following groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee may request the District release the Licensee from monitoring. If the District concurs with the request, the District will request DEP modify the conditions of certification to remove the monitoring condition.

SECTION B. PLANT SPECIFIC CONDITIONS

ii. Data Collection

Licensee shall maintain and monitor the environmental monitoring sites included in the approved monitoring plan. Water levels for monitor wells staff gauges, and piezometers for the sites included in the monitoring plan shall be referenced to National Geodetic Vertical Datum (NGVD) and reported in a form acceptable to the District by the 10th day of each month for the preceding month. The time and date that the elevation is taken shall be included. Any changes to the methods or frequency of monitoring for any of these data collection programs must be approved by the District.

iii. Staff Gauges

Licensee shall install and thereafter maintain District-approved staff gauges and shall report measurements of water levels, as indicated in the monitoring plan. Water levels shall be recorded and reported to the District on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the monitoring plan. The frequency of recording may be modified by the District as necessary to ensure protection of the resource.

iv. Monitoring Wells and Piezometers

Licensee shall monitor water levels in the monitor wells and piezometers as specified in the monitoring plan. Reports of the data shall be submitted to the District in a form acceptable to the District. All data shall be referenced to NGVD. The frequency of water-level recording may be modified by the District as necessary to ensure the protection of the resource.

v. Annual Environmental Monitoring Reports

Licensee shall submit an annual environmental monitoring data summary by January 1st of each year for the preceding water year (October 1 - September 30). The Annual Monitoring Report shall include all raw data, essential graphs, tables, and text. Monitoring progress at each site shall be summarized in the Annual Monitoring Report, as specified below. Licensee shall submit three copies of the Annual Monitoring Report each year. Interpretive reports of environmental conditions shall incorporate all environmental monitoring sites used. The Annual Monitoring Report shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters in the vicinity of the Levy Nuclear Plant. Pumpage data, wetland, water level data collected from the aquifer and for the region, and environmental parameters collected at the monitoring sites and in the region (SWFWMD data shall be used for information of the region) shall be used for the report results. Statistical trend analysis, such as double-mass curve analysis, multiple linear regression, time series analysis and/or factor analysis shall be performed to analyze the interactions of rainfall and pumpage on surficial water levels, potentiometric levels in the semi-confined aquifers, surface waters, and wetland water levels, rate of soil subsidence, and evidence of vegetational succession. Data shall be obtained through field measurements and aerial photo interpretation. A brief summary of any recommended changes to the monitoring requirements shall be provided. Upon review of those recommended changes, SWFWMD may approve changes to the monitoring requirements under the approved Environmental Monitoring Plan.

SECTION B. PLANT SPECIFIC CONDITIONS

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), 2.381(4), F.A.C.; BOR Sections 1.5, 4.2, 5.8]

3. Alternative Water Supply Implementation

The Licensee shall investigate the development of one or more alternative water supply projects to supply the water supply demands to offset all or a portion of the groundwater allocated by these conditions of certification. Alternative water supplies include seawater desalination, brackish surface or ground water, water that has been reclaimed after one or more uses, stormwater, and any other water supply source designated as non-traditional. If adverse impacts are detected or predicted through the Environmental Monitoring as specified in Condition 3 or through aquifer performance testing or groundwater modeling as specified in Conditions 5 and 6 below, Licensee shall either mitigate such adverse impacts in accordance with a plan submitted by the Licensee and approved by the District or, by selecting and implement an Alternate Water Supply project in accordance with the following schedule:

a. Within 3 years of completion of site aquifer testing specified in condition 5, the Licensee shall submit for District approval, an Alternative Water Supply Plan. The Alternative Water Supply Plan shall evaluate, identify, and propose alternative water supply development of one million five hundred eighty thousand (1,580,000) gallons per day (gpd).

b. Within 4 years of completion of site aquifer testing and modeling specified in condition 5, Licensee shall submit to the District, a preliminary design of the approved alternative water supply project that the Licensee will implement.

c. Within 3 years of groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall provide an analysis of environmental conditions as specified in Condition 3 above. The Licensee may ask for a time extension or waiver for implementing the Alternate Water Supply project if the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. The Alternate Water Supply project schedule shall be maintained unless the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. If adverse environmental impacts are occurring or are predicted to occur, the Alternative Water Supply quantity required to be developed will be determined based upon a revised hydrogeologic evaluation performed by the Licensee and accepted by the District.

d. With 4 years of completion of site aquifer testing specified in condition 5, submit to the Florida Department of Environmental Protection and the District, applications for authorization to develop and use 1,580,000 gpd of alternative water sources for the project as appropriate, unless an extension of time or waiver has been granted by the District.

e. Within 4 years of completion of site aquifer testing specified in condition 5, submit to the District an alternative water supply implementation schedule detailing the dates when construction will begin and end, and the date when water will be delivered from the project for use by the Licensee.

f. Compliance with the Alternative Water Supply Implementation Schedule is required by the Licensee, unless extended or otherwise modified in writing by the District. Each year, by March 1, after the triggers described above, the Licensee shall submit to the District a status report describing the progress made on the Alternative Water Supply

SECTION B. PLANT SPECIFIC CONDITIONS

Implementation Schedule, including the specific actions taken to meet the requirements set forth above. If the project has fallen behind schedule, Licensee shall provide just cause for the delay and/or explain how the Licensee will comply with the schedule described herein.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Section 3.1(pending amendment)]

4. Aquifer Testing and Groundwater Impact Analysis

a. For the purpose of confirming Upper Floridan transmissivity and leakance values used in Licensee's groundwater flow model, a step -drawdown test shall be performed on the production wells. A multi-well constant-rate test shall be performed on two of the following production wells: District ID Nos. 1, 2, 3, 4, Licensee ID Nos. PW-1, PW-2, PW-3, PW-4, after the wells have been fully developed. Constant-rate multi-well test locations will be based on step-drawdown tests, water quality, and other data submitted to the District prior to the multi-well constant-rate site selections. The constant-rate tests shall be performed in accordance with the specifications in an Aquifer Performance Testing (APT) Plan submitted to and approved by the District. The APT Plan shall be submitted to the District within 90 days of the approval of the conditions of certification. The step-drawdown and constant-rate tests shall be conducted by the Licensee within 6 months of construction of the wells included in the APT Plan and prior to the use of any of the wells for production purposes. All recorded raw data and a full report analyzing the data shall be submitted to the District within ninety (90) days of completion of all the tests.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Sections 1.5, 4.2, 4.5, 4.6, 4.8, 4.13]

b. If any of the transmissivity or leakance values derived from either the step-drawdown or the multi-well constant-rate tests referenced in condition 2(a)(v) above, differ significantly from the values used in the groundwater flow model submitted as part of Licensee's application, the Licensee will revise its submitted Focused Telescoping Mesh Refinement groundwater model of the wellfield area based on the results of the aquifer tests described in Condition No. 2(a)(v) above. Significantly different transmissivity or leakance values shall mean any well having either a leakance or transmissivity value twenty (20) percent higher or lower than those included in the Licensee's submitted groundwater flow model. The revised model will include wellfield-specific Upper Floridan aquifer transmissivity or leakance values and properties derived from well drilling and the aquifer tests described in Condition no. 5. The modeling parameters, including but not limited to the following: surficial aquifer transmissivity/hydraulic conductivity and thickness, Upper Floridan aquifer thickness and transmissivity/hydraulic conductivity, measured groundwater levels (NGVD) and gradients, aquifer leakage, and aquifer boundary conditions, may require revision to reasonably represent aquifer conditions. The revised model must also reflect a groundwater impact analysis including cumulative and incremental analysis to evaluate the pumping effects on other water users, and other analysis to confirm that the withdrawal meets the District's conditions of issuance for water-use permits. If required, all groundwater modeling and a full report, meeting District modeling guidelines, shall be submitted to the District within one-hundred eighty (180) days of completion of the aquifer tests described in Condition No. 5 above. Upon acceptance of the report by the District, the Licensee will complete any required Alternative Water Supply Implementation Plans as specified above.

SECTION B. PLANT SPECIFIC CONDITIONS

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), (4); BOR sections 4.2, 5.4, 5.5, 5.6, 5.7]

5. Compliance Reporting

The Licensee shall submit a compliance report beginning the fifth year after groundwater use rising to at least 1.25 million gallons per day (average annual daily withdrawal quantity) and at 5 year intervals thereafter. The report must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and the District's Water Use Permit Information Manual Part B, Basis of Review. The compliance report shall include:

- a. Information documenting water demands and updated demand projections demonstrating that allocations from all sources in the conditions of certification will continue to be needed for the remainder of the conditions of certification duration;
- b. Documentation verifying that the sources are capable of supplying the needs authorized by these conditions of certification without causing harm to water and water-related resources;
- c. Documentation verifying that the use of water is efficient and that the Licensee is implementing all feasible water conservation measures;
- d. An updated ground water modeling analysis and data analysis demonstrating that the use of groundwater does not interfere with legal uses existing at the time of issuance of the conditions of certification;
- e. An updated ground water modeling analysis, along with statistical analyses of water-level and wetland monitoring data, demonstrating that the use does not cause adverse impacts to wetlands, and surface waters, or violations of MFLs;
- f. Documentation that ground water withdrawals by the Licensee are not causing or contributing to significant water quality deterioration, including but not limited to review and statistical analyses of groundwater level and water quality data collected by the Licensee under these conditions of certification;
- g. Information demonstrating that the lowest quality source of water is being used to meet the water demands.

Following review of this report and as requested by the District, DEP may modify the conditions of certification to ensure that the use continues to meet the substantive conditions for the consumptive use of water as set forth in Section 373.223, F.S., and Chapter 40D-2, F.A.C.

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4), F.A.C.]

6. Pumpage Reporting

Licensee shall meter withdrawals and record meter readings from each withdrawal point and water supply line on a monthly basis within the last week of the month. The meter readings shall be reported to the District on or before the tenth day of the following

SECTION B. PLANT SPECIFIC CONDITIONS

month. If a metered withdrawal is not utilized during a given month, the meter report shall be submitted to the District indicating the same meter reading as was submitted the previous month.

Licensee shall install meters on District ID Nos. 1, 2, 3, 4, Licensee ID Nos. PW-1, PW-2, PW-3, PW-4, within 90 days of completion of construction of the withdrawal facilities.

All meters shall adhere to the following descriptions and shall be installed and maintained as follows:

a. All meters shall be non-resettable, totalizing flow meters that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring devices or alternative accounting or reporting methods are proposed, prior to installation, the Licensee shall submit documentation that the other measuring devices or accounting methods meet the accuracy requirement provided below. If the alternative accounting method involves a meter belonging to another entity or to an alternative water supply provider, the Licensee shall submit documentation from the owner/supplier that the meter readings conform to these meter requirements. Such documentation is subject to approval by the District. Approval for other measuring devices, accounting methods, or reporting methods must be obtained in writing from the Brooksville Regulation Department Director.

i. The flow meter(s) or other approved flow-measuring device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

ii. Accuracy testing requirements:

a) For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.

b). The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of the permit

c) The testing frequency will be decreased if the Licensee demonstrates to the satisfaction of the District that a longer period of time for testing is warranted.

d). The test will be accepted by the District only if performed by a person certified on the test equipment used as described in the section entitled Flow Meter Verification, below.

e) If the actual flow is found to be greater than 5% different from the measured flow, within 30 days the Licensee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.

b. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line. Existing systems that would require retrofitting to achieve the

SECTION B. PLANT SPECIFIC CONDITIONS

above standards will not be required to retrofit provided it is documented on the Meter Accuracy Verification Form, Form No. LEG-R.014.00 (07/08) that the flow meter is accurately and reliably measuring flow over different flow ranges or for the permanent operating flow.

c. If a metered withdrawal point, AWS inflow line or re-pump withdrawal point is not utilized during a given month, the meter report shall be submitted to the District showing the same meter reading that was submitted the previous month.

d. Broken or malfunctioning meter:

If the meter or other flow-measuring device malfunctions or breaks, the Licensee shall:

i. Notify the District within 15 days of discovering the malfunction or breakage;

ii. Replace the broken or malfunctioning meter with a repaired or new meter, subject to the specifications given above, within 30 days of the discovery; and

iii. Submit estimates of their pumpage as described below.

If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, the withdrawal point shall not lack a fully functioning meter for more than 60 consecutive days.

e. While the meter is not functioning correctly, the Licensee shall document the total amount of time in minutes that the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on District scanning forms and noted as estimated per instructions on the form. If the data are submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.

f. In the event a new meter is installed to replace a broken meter, the meter and its installation shall meet the specifications of the District. The Licensee shall notify the District of the replacement with the first submittal of meter readings from the new meter.

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1),(3), 40D-2.381(1), (4); F.A.C.; BOR 5.1, 6.2]

7. Distribution Flexibility

The average day, peak monthly, and maximum daily, if applicable, quantities for District ID No(s) 1, 2, 3, 4, Licensee ID No(s) PW-1, PW-2, PW-3, PW-4 shown above in the production withdrawal table are estimates based on projected distribution of pumpage, and are for water use inventory and impact analysis purposes. The quantities listed in the table for these individual sources are not intended to dictate the distribution of pumpage from the withdrawal sources. The Licensee may make adjustments in pumpage distribution as necessary up to 125 percent on an average basis, up to 125 percent on a peak monthly basis, so long as adverse environmental impacts do not result and other conditions of this certification are complied with. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above.

SECTION B. PLANT SPECIFIC CONDITIONS

[Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., BOR sections 3.2, 3.4, 4.1]

8. Water Quality Sampling

a. Water quality samples shall be collected and analyzed for parameters and at the frequencies specified below. Water quality samples from production wells shall be collected from all wells, unless infeasible. If sampling is infeasible, Licensee shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the Brooksville Regulation Department Director. Reports of the analyses shall be submitted to the Permit Data Section, Regulation Performance Management Department, (using District forms) on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory which undertook the analysis. The parameters and frequencies of sampling and analyses may be modified by the Brooksville Regulation Department Director, as necessary to ensure the protection of the resource.

District <u>ID No.</u>	Licensee <u>ID No.</u>	Minimum Pumping <u>Time (minutes)</u>	<u>Parameter</u>	<u>Sampling Frequency</u>
1	PW-1	20 minutes	Chlorides,	February, May,
2	PW-2	20 minutes	Sulfates, and	August and November
3	PW-3	20 minutes	T.D.S.	
4	PW-4	20 minutes		

Water quality samples shall be collected quarterly and on the same week of the months specified.

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2]

b. Water quality samples from monitor wells shall be collected and analyzed for the District ID No., parameter(s), and frequency (ies) specified in the table below.

SECTION B. PLANT SPECIFIC CONDITIONS

Water quality samples shall be collected after pumping the monitor wells(s) to a constant temperature, pH, and conductivity. Sampling method(s) shall be designed to collect water quality samples that are chemically representative of the zone to be sampled. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". The Licensee's sampling procedure(s) shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. A report describing the sampling and chain of custody procedures shall be included with the first data submitted after the date this permit is granted, and upon any change in sampling and/or analytical method(s). Any variance in sampling and/or analytical methods shall have prior approval of the District. Reports of the analyses shall be submitted to the District on District forms on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory that undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the District as necessary to ensure the protection of the resource.

District <u>ID No.</u>	Licensee <u>ID No.</u>	<u>Parameter</u>	<u>Sample Frequency</u>
5	TBD	Chlorides,	May, September
6	TBD	Sulfates, and TDS	
7	TBD		
8	TBD		
9	TBD		
10	TBD		

Water quality samples shall be collected based on the following timetable:

Semi-annually Same week of months specified

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2]

c. The District with DEP's concurrence, reserves the right to set chloride, sulfate or TDS concentration limits on any production well in the future to prevent long-term upward trends or other significant water quality changes from occurring, based on data collected and after a sufficient data base has been established to determine limits. These limits shall be required after discussions with the Licensee. At such time as the concentration in any water sample reaches or exceeds the designated concentration limits, the Licensee shall take

SECTION B. PLANT SPECIFIC CONDITIONS

appropriate action to reduce concentrations to below those set for the particular well. If the District determines that long-term upward trends or other significant water quality changes are occurring, the District may consult with FDEP to reconsider the quantities included in these conditions of certification.

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2]

d. During drilling of District ID Nos. 1, 2, 3, 4, Licensee ID Nos. PW-1, PW-2, PW-3, PW-4, water quality samples shall be collected at intervals of the change of drill rod or 30 feet, whichever is less, from 150 feet to a maximum depth of five feet above the bottom of the well when drilling on reverse air. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling, or other appropriate method with prior approval by the District.

Samples shall be analyzed by a certified laboratory for Chloride, Sulfate, and Specific Conductivity. Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Reports of the analyses shall be submitted to the Permit Data Section, Regulation Performance Management Department (using District forms) within thirty days of sampling, and shall include the signature of an authorized representative and the certification number of the Florida Department of Health certified laboratory utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories".

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or by Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2]

e. Monthly water levels for monitor wells for the sites included in the table below shall be referenced to NGVD, and reported in a form acceptable to the District by the tenth day of each month for the preceding month. The time and date that the elevation is taken shall be included. Changes to the methodology, extent, or frequency of monitoring at any of these sites may be modified by the District, as necessary to ensure the protection of the resources.

District	Licensee
<u>ID No.</u>	<u>Site No.</u>
5	TBD
6	TBD
7	TBD

SECTION B. PLANT SPECIFIC CONDITIONS

8	TBD
9	TBD
10	TBD

[Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2]

9. Wells

a. Well construction permits shall be obtained from the District by the Licensee for all wells to be constructed for this project. Well construction shall conform to requirements set forth in District and DEP rules for well construction.

[Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.041, F.A.C.; WUP BOR 6.2]

b. Wells not in use with no installed pumping equipment shall be capped or valved in a water tight manner in accordance with Rule 62-532.500(3)(a)(4), F.A.C.

[Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.037, 40D-3.041, 40D-3.521, 62-532.500, F.A.C.]

c. Within 90 days of the completion of each proposed well, Licensee shall submit to the District specific capacity (well testing) information from any test performed by the Water Well Contractor or pump installer on the well. This information shall include:

- i. Static water level before pumping
- ii. Duration of test pumping
- iii. Gallons per minute pumped
- iv. Final water level measured during pumping

If step-drawdown tests were performed, the information listed above shall be submitted for each step. A report analyzing the results shall be presented.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.]

d. Within 90 days of construction, Licensee shall submit to the Permit Data Section, Regulation Performance Management Department, the specific locations of District ID Nos. 1, 2, 3, 4, Licensee ID Nos. PW-1, PW-2, PW-3, PW-4, on an original blue line aerial with a minimum scale of one inch equals 800 feet, or by latitude/longitude. Intake and mainline diameters for each of the above pumps shall be reported at the time of location reporting.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.]

e. Within one year of conditions of certification issuance, Licensee shall develop and implement a Water Conservation Plan (Plan) that includes practices currently employed or planned. For planned components, include an estimated time-frame for implementation for each. The Plan must indicate that technically and economically feasible water conservation opportunities have been or will be employed.

SECTION B. PLANT SPECIFIC CONDITIONS

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 3.4 (pending amendment)]

f. The lowest quality water source, including reclaimed water, surface water and stormwater, must be used for each consumptive use authorized by these conditions of certification when available, except when Licensee demonstrates that the use of the lower quality water source is determined to be not economically, environmentally, or technologically feasible, in accordance with the District's Water Use Permit Information Manual Part B, Basis of Review, Sections 4.4 and 4.11.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 4.4, 4.11]

g. Wetlands and other surface waters may not be adversely impacted as a result of the water use authorized by these conditions of certification. If unacceptable adverse impacts occur, the District will request that DEP modify the conditions of certification to curtail or abate the unacceptable adverse impacts, unless the impacts can be mitigated by Licensee.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 2.8, 4.2, 4.13, 6.2]

h. A construction dewatering plan shall be provided to the District, for approval 6 months prior to the conduct of the dewatering. This plan shall include the details of the dewatering system, discharge quantities and location, a monitoring plan, and other details as appropriate to demonstrate that the dewatering plans meet the Districts Conditions of Issuance as included in 40D-2.301 and comply with all applicable Environmental Resource Permit construction dewatering requirements.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Sections 3.5, 5.4, 5.5]

B. STANDARD CONDITIONS:

Licensee shall comply with the following Standard Conditions:

1. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if Licensee fails to comply with all of the provisions of Chapter 373, F.S., Chapter 40D, or the conditions set forth herein, the District shall seek revocation of any conditions of certification.

2. These conditions of certification are imposed based on information provided by Licensee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the term of this certification, it is determined by the District that the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the District shall seek modification these conditions of certification or revocation of the certification authorized by DEP.

3. Licensee shall not deviate from any of the District- imposed conditions of this certification without written approval by the District.

SECTION B. PLANT SPECIFIC CONDITIONS

4. In the event the District declares that a Water Shortage exists pursuant to Chapter 40D-21, Licensee agrees that portions of these conditions of certification shall be modified, or declared inactive as necessary to address the water shortage.

5. The District shall collect water samples from any withdrawal point listed in these conditions of certification or shall require Licensee to submit water samples when the District determines there is a potential for adverse impacts to water quality.

6. Licensee shall provide access to an authorized District representative to enter the property at any reasonable time to inspect the facility and make environmental or hydrologic assessments. Licensee shall either accompany District staff onto the property or make provision for access onto the property.

7. Licensee shall cease or reduce any surface water withdrawals as directed by the District if water levels in surface water fall below applicable minimum water level established in Chapter 40D-8 or rates of flow in streams fall below the minimum levels established in Chapter 40D-8.

8. Licensee shall cease or reduce withdrawals if water levels in aquifers fall below the minimum levels established by the District.

9. Licensee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the District adopts specific conservation requirements for Licensee's water use classification, these conditions of certification shall be modified accordingly.

10. The District may establish special regulations for Water Use Caution Areas. At such time as the Governing Board adopts such provisions, these conditions of certification shall be subject to them upon notice and after a reasonable period for compliance.

11. Licensee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, Licensee shall be required to mitigate the impacts. Adverse impacts include:

a. A reduction in water levels which impairs the ability of the well to produce water;

b. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses; or

c. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer water body.

12. Licensee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the Licensee shall be required to mitigate the impacts. Adverse impacts include:

a. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses;

b. Sinkholes or subsidence caused by reduction in water levels;

c. Damage to crops and other vegetation causing financial harm to the owner; and

SECTION B. PLANT SPECIFIC CONDITIONS

d. Damage to the habitat of endangered or threatened species.

13. When necessary to analyze impacts to the water resource or existing users, Licensee shall be required to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the District.

14. A District identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.

15. Licensee shall notify the District within 30 days of the sale or conveyance of permitted water withdrawal facilities or the land on which the facilities are located.

16. The annual average daily withdrawal quantity is determined by calculating the total quantity of water to be withdrawn over a one year period, divided by 365 days, which results in a gallons per day (gpd) quantity pursuant to Basis of Review, Section 3.2, Permitted Withdrawal Quantities. This is a running 12-month average, whereby each month the annual average daily quantity is recalculated based on the previous 12-month pumpage.

[Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Section 6.1]

XXVII. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Note: The Licensee may request modification of the following applicable FWC conditions upon issuance by the Department of Final NPDES permit FL0633275-001-IW1S/NP.

A. Listed-Species Conditions

Listed Species Occurring or Potentially Occurring in the Project Area

Common Name	Scientific Name	FL Status	Federal Status
Gopher frog	<i>Rana capito</i>	SSC	
Eastern indigo snake	<i>Drymarchon couperi</i>	T	T
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	SSC	
Short-tailed snake	<i>Stilosoma extenuatum</i>	T	
Gopher tortoise	<i>Gopherus polyphemus</i>	T	
Florida scrub jay	<i>Aphelocoma coerulescens</i>	T	T
Little blue heron	<i>Egretta caerulea</i>	SSC	
White ibis	<i>Eudocimus albus</i>	SSC	
Southeastern American kestrel	<i>Falco sparverius paulus</i>	T	
Florida sandhill crane	<i>Grus canadensis pratensis</i>	T	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	**	
Red-cockaded woodpecker	<i>Picoides borealis</i>	SSC	E

SECTION B. PLANT SPECIFIC CONDITIONS

Snail kite	<i>Rostrhamus sociabilis plumbeus</i>	E	E
Florida mouse	<i>Podomys. floridanus</i>	SSC	
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	SSC	
Florida black bear	<i>Ursus americanus floridanus</i>	T*	
Florida manatee	<i>Trichechus manatus latirostris</i>	E	E

SSC = Species of Special Concern; E= Endangered; T= Threatened; **While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle management plan.

1. General Listed-Species Surveys

a. The applicant will coordinate with the FWC to obtain and follow the current survey protocols for all listed species that may occur within the plant and associated facilities area, with appropriate buffers as defined by the survey protocols, prior to conducting detailed surveys.

b. Surveys will be conducted prior to clearing and construction in accordance with the survey protocols. The results of those detailed surveys will be provided to the FWC and coordination will occur with the FWC on appropriate impact mitigation methodologies.

[Article IV, Sec. 9, Fla. Constitution; Section 379.2291, Florida Statutes (F.S.), Section 403.507, F.S., and Rule 68A-27, Florida Administrative Code (F.A.C.).]

2. Gopher Tortoise

Information on the gopher tortoise and permitting can be found on our agency's website.

a. The applicant will conduct surveys for gopher tortoises (*Gopherus polyphemus*), in accordance with the FWC-approved Gopher Tortoise Management Plan (adopted in 2007) and current Gopher Tortoise Permitting Guidelines. A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4, Methods for Burrow Surveys on Development (Donor) and Recipient Sites. Surveys must be conducted within 90 days of when an application is submitted to the FWC; however, surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other permittees are subject to field verification by the FWC. The gopher tortoise surveys should be conducted during the months of April through October.

b. A permit is not required for activities that occur more than 25 feet from a gopher tortoise burrow entrance, provided that such activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by the FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow; harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken.

SECTION B. PLANT SPECIFIC CONDITIONS

c. The applicant will coordinate with and provide the FWC a completed gopher tortoise relocation permit(s) application in accordance with the FWC-approved Gopher Tortoise Management Plan and Gopher Tortoise Permitting Guidelines as a post-certification submittal. This permit application will provide information on the location for on-site recipient areas and any off-site FWC approved recipient site, as well as, appropriate mitigation contributions.

d. Any commensal species observed during the burrow excavations that are listed by the U.S. Fish and Wildlife Service (USFWS) or FWC will be relocated in accordance with the applicable guidelines for that species.

e. All staging and storage areas will be sited to avoid impacts to gopher tortoise burrows and habitat.

[Article IV, Sec. 9, Fla. Const.; Section 379.2291, F.S.; and Rule 68A-27.004, F.A.C.]

3. Bald Eagle

a. The applicant will avoid impacts to bald eagle (*Haliaeetus leucocephalus*) nests where possible. If impacts cannot be avoided within the 660-foot nest buffer zone, construction activities will be conducted consistent with the FWC Eagle Management Guidelines, outlined in the FWC Bald Eagle Management Plan, dated April 9, 2008, or any subsequent versions. In areas where bald eagle nests are present, efforts will be made to avoid construction activities during the nesting season (October 1 – May 15) or when eagles are present before October 1 or after May 15.

b. In accordance with the FWC Eagle Management Guidelines, for construction areas that fall within 330 feet of an active or alternate bald eagle nest, construction activities will be conducted only during the non-nesting season (May 16 – September 30). Any construction activities that fall within 660 feet of the nest during the nesting season will be conducted following USFWS Bald Eagle Monitoring Guidelines, dated 2007, or subsequent versions.

c. In areas where adverse impacts to nests cannot be avoided, resulting in nest disturbance, the information required for an FWC Eagle Permit will be obtained from the FWC, as authorized by Section 379.2291 F.S., and Rule 68A-16.002, F.A.C., and minimization and conservation measures outlined in the FWC Bald Eagle Management Plan will be followed, as applicable.

[Citations: Article IV, Sec. 9, Fla. Const., Section 403.5 1 13(2), F.S., Rule 62-1 7.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.002, F.A.C.]

4. Florida Scrub-Jay

a. The applicant will coordinate with the FWC prior to clearing and construction to insure that surveys for Florida scrub-jays (*Aphelocoma coerulescens*) are in accordance with FWC- and USFWS-approved protocols (Fitzpatrick et al. 1991)*.

b. The applicant will conduct the surveys and provide the FWC with the Florida scrub-jay survey results and identify where impacts to Florida scrub-jays cannot be avoided.

SECTION B. PLANT SPECIFIC CONDITIONS

c. The applicant will coordinate with the FWC to determine mitigative measures for areas where impacts to Florida scrub-jays cannot be avoided.

[Article IV, Sec. 9, Fla. Const., Section 403.5 1 13(2), F.S., Rule 62-1 7.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C.]

*Fitzpatrick, J. W., G.E. Woolfenden, M.T. Kopeny. 1991. Ecology and development-related requirements of the Florida scrub-jay (*Aphelocoma c. coerulescens*). Nongame Wildl. Prog. Tech. Rep. No. 8, Fla. Game Fresh Water Fish Comm., Tallahassee.

5. Red-Cockaded Woodpeckers

a. The applicant will coordinate with the FWC prior to conducting surveys for red-cockaded woodpeckers (*Picoides borealis*) to insure that surveys are in accordance with the FWC-approved Red-Cockaded Management Plan, adopted in 2003 and the USFWS Red-Cockaded Recovery Plan.

b. The applicant will conduct the surveys and provide the FWC with the red-cockaded woodpecker survey results and identify where impacts to red-cockaded woodpeckers cannot be avoided.

c. The applicant will coordinate with the FWC to determine mitigative measures for areas where impacts to red-cockaded woodpeckers cannot be avoided.

[Article IV, Sec. 9, Fla. Const., Section 403.5 1 13(2), F.S., Rule 62-1 7.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C.]

6. Avian Protection Plan

The applicant will coordinate with the FWC in the development of an Avian Protection Plan that delineates a program designed to reduce the operational and avian risks that result from avian interactions with electric utility facilities with the goal of reducing avian mortality. Guidelines for the Avian Protection Plan can be found on the USFWS website at:

<http://www.fws.gov/migratorybirds/issues/APP/AVIAN%20PROTECTION%20PLAN%20FINAL%204%2019%2005.pdf>

[Article IV, Sec. 9, Fla. Const., Section 403.5 1 13(2), F.S., Rule 62-1 7.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C.]

7. Florida Manatee

a. The Standard Manatee Conditions for In-Water Work (revision 2005) shall be followed for all in-water activity located where waters are accessible to manatees. These are enclosed as Attachment 1. Blasting or pile hammering activities to break rock shall be prohibited in or adjacent to waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.

b. At least 60 days prior to the beginning of in-water construction or demolition activities located where waters are accessible to manatees, the applicant shall contact the FWC to determine whether observers will be required, how many observers will be needed and who those observers will be. The permittee may provide the FWC with a list of prospective

SECTION B. PLANT SPECIFIC CONDITIONS

observers or the FWC will provide a list. Observers must be approved by the FWC prior to construction and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other associated vessels, or any in-water work associated with construction or demolition activities shall not be performed after sunset, when the possibility of spotting manatees is negligible. Observers shall maintain a log detailing manatee sightings, work stoppages, and other protected species-related incidents. A report, summarizing all activities noted in the observer logs, the location and name of project, and the dates and times of work shall be submitted within 30 days following project completion to the FWC's Imperiled Species Management Section at: 620 South Meridian Street, 6A, Tallahassee, Florida 32399-1600, or e-mailed at fcmpmail@myfwc.com.

c. If a cofferdam is used during in-water construction to minimize release of sediment to the Cross Florida Barge Canal, the area inside (behind) the cofferdam must be checked for the presence of manatees during and after installation of the barrier before further work occurs to determine that manatees have not been entrapped.

d. At the earliest point in the final design phase of the project and prior to construction in waters accessible to manatees, the applicant must submit a complete final description and final design of the Cooling Water Intake Structure (CWIS) plan to be approved by the FWC with regard to manatee safety issues. The description should include the width of proposed vertical bar screens and the means by which they will be secured to the structure, the location and type of material proposed for screens and the method of securing the screens, the location of the pump and pump house, and a complete explanation of how access by manatees to the pump mechanism will be prevented. A final CWIS plan approved by the FWC must be implemented prior to the facility operation and maintained for the life of the facility.

e. At the earliest point in the final design phase of the project and prior to construction in waters accessible to manatees, the applicant must submit a complete description and final design of the trash rack/rake plan, which must be approved by the FWC. The description must include the type (brand) of trash rack proposed, the proposed rack installation angle, and if a rake/rake gripper (or other moving element for cleaning or straining) is proposed as part of the mechanism, a description of the rake gripper, the size (in inches) of the rake gripper opening, the proposed descent velocity of the rake or other straining mechanism, the proposed type of operation of the rake (automated or manual), and the proposed location of the trash rack relative to the CWIS forebay. A final trash rack/rake plan must minimize risks to manatees, must be approved by the FWC, implemented prior to the facility operation and maintained for the life of the facility.

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

[Article IV, Sec. 9, Fla. Const., Section 403.5 1 13(2), F.S., Rule 62-1 7.191, F.A.C., Section 379.2291, F.S. and 68A-27 F.A.C.]

SECTION B. PLANT SPECIFIC CONDITIONS

B. Biological Survey and Monitoring Conditions

1. Cross Florida Barge Canal and Withlacoochee River Survey and Monitoring

Field data are needed in order to determine impacts of the proposed withdrawals in the Cross Florida Barge Canal and the Withlacoochee River. The current Plan of Study needs revisions in order to calculate accurate baseline conditions and develop monitoring plans to determine deviations from baseline once operations begin.

a. Within 180 days following certification of the Levy County Nuclear Facility, the Licensee shall submit to the DEP Siting Office and FWC a Cross Florida Barge Canal and Withlacoochee River Baseline Survey and Monitoring Plan (CRSMP). The CRSMP shall include, at a minimum, the following components and may include additional components as proposed by either the FWC or Progress Energy:

i. Nekton pre-operational survey and post-operational monitoring should be based on a stratified-random sampling design, with a minimum of 12 samples per month in the Cross Florida Barge Canal, a minimum of 6 samples per month in the Withlacoochee River downstream of Lake Rousseau, and a minimum of 6 samples per month in the area just off the entrance to the Cross Florida Barge Canal. Ideally the sampling effort would be divided between bag seines and otter trawls, with a ratio of two seine hauls to one trawl haul. This effort is comparable to current monitoring in the Hydrobiological Monitoring Program (HBMP) of the Alafia River-Tampa Bay Bypass Canal-Hillsborough system and is necessary to detect change in nekton communities. Ideally the number of samples necessary per month would be based on preliminary sampling and subsequent power analysis (to determine power to detect change), as was done in designing the HBMP. If additional gear is deemed more appropriate, these should be provided in the nekton monitoring study design.

ii. Plankton (ichthyoplankton and meroplankton) pre-operational survey and post-operational monitoring should be based on a stratified-random sampling design, with a minimum of 12 samples per month in the Cross Florida Barge Canal, a minimum of 6 samples per month in the area just off the entrance to the Cross Florida Barge Canal, and in the Withlacoochee River. The surveys should employ standard plankton sampling gear. Ideally the number of samples necessary per month would be based on preliminary sampling and subsequent power analysis (to determine power to detect change). The plankton monitoring should, at a minimum, include sampling at night.

iii. Additional hydrographic survey sites will be needed to characterize circulation and flow from the Withlacoochee River south to the Barge Canal, across and into the Barge Canal, and south towards the Crystal River Energy Complex. Specific survey and monitoring locations, sampling frequencies and methods, and specific parameters to be surveyed and monitored shall be approved by the FWC, in consultation with DEP and SWFWMD.

iv. Pre-operational surveys shall be conducted for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy in order to establish seasonal/climatological baseline, biological and water quality conditions. This timeframe will not exceed the period of time that is available prior to operation of the facility.

SECTION B. PLANT SPECIFIC CONDITIONS

v. Pre-operational survey and post-operational monitoring shall be conducted for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy, utilizing the same pre-operational survey methodologies in order to identify and characterize biological and water quality impacts associated with the project for mitigation purposes.

vi. An impingement and entrainment study shall be developed and implemented for use during operations to validate the assumptions of limited or no impingement and entrainment of organisms.

vii. An adaptive management approach shall be applied during pre-operational surveying and post-operational monitoring plan development in order to accommodate for less expensive data collection methodologies that may become available.

viii. This CRSMP, including survey and monitoring locations, shall be approved prior to implementation. The FWC, in consultation with DEP and SWFWMD, shall indicate approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information is needed from the licensee to complete and approve the Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.

ix. Upon approval, Progress Energy will start implementation of the CRSMP.

b. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the survey and monitoring requirements, hydrographic analysis documenting the flow and circulation patterns in the nearshore areas, and a summary report at the end of the baseline period. These reports shall be submitted to the FWC, and DEP Siting Office for review. If the FWC, in consultation with DEP and SWFWMD, in their review of the yearly progress reports, determines inadequacies or the need to modify the CRSMP, FWC will notify Progress Energy and a joint meeting will be held to discuss the findings. At the end of the baseline monitoring period, Progress Energy will hold a joint meeting with the FWC to discuss the results. At that time, the FWC, in consultation with DEP and SWFWMD, and Progress Energy will determine what, if any, modifications need to be made to the CRSMP for monitoring once the Plant begins operations.

c. If the CRSMP is determined to need modifications for monitoring during the operation of the Plant, Progress Energy will submit, within 180 days after notification of needed modifications, a revised CRSMP to the FWC and the DEP Siting Office for review. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that additional information from the licensee is necessary to complete and approve the CRSMP, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.

d. Progress Energy will submit, after initiation of operations at the Levy Plant, an annual report, including all data and statistical analyses resulting from the monitoring requirements and an analysis comparing the current data to the pre-operational survey (baseline) data to the FWC and the Siting Office. If the FWC, in consultation with DEP

SECTION B. PLANT SPECIFIC CONDITIONS

and SWFWMD, determines that the pre-operational survey and post-operational monitoring data indicate harm or potential harm to the waters of the State (including ecological resources of the Cross Florida Barge Canal and the Withlacoochee River); and/or indicate exceedance of State water quality standards, or if these data are insufficient to evaluate changes, then additional measures shall be required to evaluate or to abate such impacts. Additional measures include but are not limited to:

- i. Enhanced monitoring and/or modeling, and mitigative measures;
- ii. Operational changes in the cooling water intake system to reduce any such impacts;
- iii. Other measures to abate impacts as may be described in the Canal and River Monitoring Plan.

e. Progress Energy will submit a summary report, including all data and statistical analyses from the baseline monitoring and an analysis comparing the current data to the baseline data, to the FWC and the DEP Siting Office. The summary report should be submitted a minimum of 6 months before renewal of the NPDES permit.

[Article IV, Sec. 9, Fla. Const., Section 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), 68A-4.001, F.A.C and Chapter 68A-27, F.A.C.]

2. Levy Nuclear and Crystal River Energy Complex Discharge Survey and Monitoring

The current seagrass and faunal monitoring data do not appear to provide the necessary information to be able to assess the potential impacts from the combined discharge from the Levy Nuclear Complex (LNC) and Crystal River Energy Complex (CREC). The current Plans of Study for both the thermal plume monitoring and seagrass-faunal monitoring need revisions in order for the Agencies to be able to determine deviations from baseline once combined operations begin.

a. Within 180 days following certification of the Levy County Nuclear Facility, Progress Energy will submit to the FWC and the DEP Siting Office an LNC and CREC Discharge Survey and Monitoring Plan (Discharge Monitoring Plan). The Discharge Monitoring Plan shall include, at a minimum, the following components:

- i. A broad-based, pre-operational survey and a post-operational monitoring plan, for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy, that is available prior to operation of the facility, that includes sites outside of the existing or predicted plume areas to allow for a comparison of the plume area sites to a “control site.” This time frame will not exceed the period of time that is available prior to operation of the facility.
- ii. Specific survey and monitoring locations, sampling frequencies and methods, and specific parameters to be surveyed and monitored.
- iii. The survey and monitoring will include, at minimum, protocols to monitor seagrass, oyster and hardbottom resources. Monitoring of physical

SECTION B. PLANT SPECIFIC CONDITIONS

parameters shall include, at minimum, surface and bottom temperature, salinity, dissolved oxygen (DO), total nitrogen, total phosphate, and water column transparency data collection.

iv. Intensive survey and monitoring of the central areas of the existing and future/predicted plume areas during the first and second summers of the combined discharge. This should include measurements of DO at the surface and at the bottom measured on a regular schedule (quarterly at minimum, monthly if possible), and, within the zone of plume impact, DO at the bottom measured overnight 3 to 4 times during each summer.

v. An adaptive mitigation plan that outlines remedial action options if the CREC/LNC effluent has adverse impacts on water quality and physical parameters, seagrasses, oysters, or other marine organisms.

vi. The Discharge Monitoring Plan, including survey and monitoring locations, shall be approved prior to implementation. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.

vii. The Discharge Monitoring Plan shall be implemented and replace the existing seagrass monitoring plan within one year following the certification of the LNC.

b. The draft Discharge Monitoring Plan and results of monitoring data collected over the course of the previous and current CREC operating period and NPDES permits will be submitted to the FWC so as to provide a basis for developing the Levy Nuclear and Crystal River Energy Complex Discharge Mitigation Plan.

c. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the survey and monitoring requirements, and a summary report at the end of 5 years after site certification of the Levy County Nuclear facility and submit the report to the FWC and DEP Siting Office for review. If in the review of the yearly progress reports, the FWC, in consultation with DEP and SWFWMD, determines inadequacies or the need to modify the Discharge Monitoring Plan, FWC will notify Progress Energy to discuss the findings. At the end of the baseline monitoring period, Progress Energy will contact FWC to discuss the results. At that time, the FWC, in consultation with DEP and SWFWMD, and Progress Energy will determine what if any modifications need to be made to the Discharge Monitoring Plan for monitoring once the Plant begins operations.

d. If the Discharge Monitoring Plan is determined to need modifications for monitoring during the operation of the Plant, Progress Energy will submit, within 180 days, a revised Discharge Monitoring Plan to the Agencies for review. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that additional information from the licensee is necessary to complete and approve the Discharge Monitoring Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.

SECTION B. PLANT SPECIFIC CONDITIONS

e. Progress Energy will submit, after initiation of operations at the Levy Plant, a yearly progress report, including all data and statistical analyses from the baseline monitoring and an analysis comparing the current data to the baseline data, to the Agencies. If the FWC, in consultation with DEP and SWFWMD, determines that the pre-operational survey and post-operational monitoring data are insufficient to evaluate changes, indicate harm or potential harm to the waters of the State including ecological resources of the Cross Florida Barge Canal and the Withlacoochee River; and/or exceed State water quality standards, then additional measures shall be required to evaluate or to abate such impacts. Additional measures include but are not limited to:

- i. Enhanced monitoring and/or modeling, and mitigative measures;
- ii. Operational changes in the discharge or water cooling system to reduce any such impacts;
- iii. Other measures to abate impacts as may be described in the Plan.

f. Progress Energy will submit a summary report, including all data and statistical analyses from the baseline survey and an analysis comparing the current data to the baseline data to FWC and the DEP Siting Office. The summary report should be submitted a minimum of 6 months before renewal of the NPDES permit.

[Article IV, Sec. 9, Fla. Const., Section 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), and Chapter 68A-27, F.A.C.]

C. Mitigation

The siting of the cooling water intake structure and the operations of the plant may have an effect on the Withlacoochee River and the Cross Florida Barge Canal (Barge Canal). Additionally, the existing discharge from the Crystal River Energy Complex (CREC) has been documented to have impacted the seagrasses and associated fauna in the nearshore areas. The combined discharge from the Levy Plant and the CREC may continue to impact the near shore areas and possibly additional acreage. Previous mitigative measures at the CREC site have not resulted in enhancement or re-establishment of the seagrass community in the disturbed area of the discharge plume. The Licensee is encouraged to avoid or minimize project impacts to reduce the requirements for mitigation during the construction and operational phases of the project. An example could be the use of the Levy Plant blowdown water being used to replace some of the intake water currently used by the Crystal River Energy Complex.

1. Cross Florida Barge Canal and Withlacoochee River

a. FWC, in consultation with DEP and SWFWMD, will review the CRMP Annual Reports. If after the review and analysis of the data and reports there is an indication of adverse impacts, FWC, in consultation with DEP and SWFWMD, will notify Progress Energy of the need for mitigation. Within 180 days following notification of the need for mitigation, Progress Energy will submit to the FWC and the DEP Siting Office a Withlacoochee River and the Cross Florida Barge Canal Mitigation Plan (CFBCWR Mitigation Plan). The CFBCWR Mitigation Plan may include the following components:

SECTION B. PLANT SPECIFIC CONDITIONS

- i. Plans to alleviate changes in flow, water quality, or biology, as determined from the survey and monitoring, in the Withlacoochee River south of Lake Rousseau.
- ii. Funding for an FWC aquatic reconnaissance program to address impacts from impingement and entrainment of marine organisms and any changes in the Barge Canal. The funding will provide support to acquire various types of physical and biological aquatic data. This data will be used to assist in determining the potential for effects and necessary mitigation for projects proposed for development using aquatic resources or proposed to be located in waters of the State of Florida.
- iii. Possible operational changes in the cooling water intake system to reduce any such impacts.
- iv. The CFBCWR Mitigation Plan shall be approved by FWC, in consultation with DEP and SWFWMD, prior to implementation. FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that FWC, in consultation with DEP and SWFWMD, requires additional information for the licensee to complete and approve the CFBCWR Mitigation Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
- v. Upon approval by FWC, in consultation with DEP and SWFWMD, Progress Energy will start implementation of the CFBCWR Mitigation Plan.
- vi. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the implementation of the CFBCWR Mitigation Plan, and a summary report at the end of 5 years or a minimum of 6 months before renewal of the NPDES permit, and submit the report to FWC and DEP for review. If the FWC, in consultation with DEP and SWFWMD in their review of the yearly progress reports determine inadequacies or the need to modify the CFBCWR Mitigation Plan, they will notify Progress Energy to discuss the findings. If the hydrographic monitoring from the Canal and River Monitoring Plan indicates changes to the circulation and flow, a proposal will be developed to restore circulation patterns.

[Article IV, Sec. 9, Fla. Const., Section 403.507 and 403.509, F.S. Section 379.1025 F.S., Section 379.2291 F.S.; Section 379.2401 F.S., Rules 68A-1.002 F.A.C., 68A-4.001, F.A.C and Chapter 68A-27, F.A.C.]

2. Crystal River Combined Discharge

- a. FWC, in consultation with DEP and SWFWMD, will review the CRMP Annual Reports. If after the review and analysis of the data and reports there is an indication of adverse impacts, FWC, in consultation with DEP and SWFWMD, will notify Progress Energy of the need for mitigation. Within 180 days following notification of the need for mitigation, Progress Energy will submit to FWC and the DEP Siting Office a Levy Nuclear and Crystal River Energy Complex Discharge Mitigation Plan (LNCREC Mitigation Plan). The Plan may include the following components:

SECTION B. PLANT SPECIFIC CONDITIONS

- i. Remedial action options if the CREC/Levy Nuclear effluent has adverse impacts on water quality and physical parameters, seagrasses, oysters, or other marine organisms.
 - ii. Development of a hydrologic model for restoring flows and circulation if deemed necessary from the Canal and River Monitoring Plan.
 - iii. If the hydrologic modeling, from item 2 above, indicates positive changes, then consideration should be given to re-establishing the “flow-through cuts” along the Barge Canal spoil piles.
 - iv. Operational changes in the discharge or water cooling system to reduce any such impacts.
 - v. The LNCREC Mitigation Plan shall be approved prior to implementation. FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that FWC, in consultation with DEP and SWFWMD, require additional information for the licensee to complete and approve the LNCREC Mitigation Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
 - vi. Upon approval by FWC, in consultation with DEP and SWFWMD, Progress Energy will start implementation of the LNCREC Mitigation Plan.
- b. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the implementation of the LNCREC Mitigation Plan, and a summary report at the end of 5 years or a minimum of 6 months before renewal of the NPDES permit, and submit the report to FWC and the DEP Siting Office for review. If the FWC, in consultation with DEP and SWFWMD, in their review of the yearly progress reports determine inadequacies or the need to modify the LNCREC Mitigation Plan, FWC will notify Progress Energy to discuss the findings.

[Article IV, Sec. 9, Fla. Const., Section 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 F.A.C, Chapter 68A-27, F.A.C.]

XXVIII. LEVY COUNTY – PLANT REQUIREMENTS

NOTE: References to Exhibits A, B, and C to SE 2-08, are references to those documents which constitute exhibits to a Special Exception submitted by the Applicant for the use of the site for an electrical power generating facility, which Special Exception was approved by the Board of County Commissioners of Levy County, on September 20, 2008 (attached as Appendix F). The Special Exception will be referred to herein as SE 2-08. Exhibits A, B, and C to SE 2-08 are attached to this Final Report in PDF format and are included herein by this reference. The term Special Exception area as used in this Final Report means the area described and depicted on Exhibit A of SE 2-08 as the property that is the subject of SE 2-08.

A. Documentation/Submittals Requirements

1. At least sixty (60) days prior to any construction activities on the site or any associated facilities, the Applicant shall provide all of the following to the County for its review and approval:

SECTION B. PLANT SPECIFIC CONDITIONS

a. Completed County building permit forms for any structures on the site or for associated facilities that do not consist of facilities of electric utilities as defined in Section 366.02, Fla. Stat., which are directly involved in the generation, transmission, or distribution of electricity, or that are not otherwise exempt from the requirements of the Florida Building Code. For every structure Applicant intends to construct on the site or for associated facilities that Applicant contends is exempt from the Florida Building Code, Applicant shall provide a description of the structure or facility and the basis for the contended exemption.

b. Copies of all development approvals and permits from all applicable state and federal agencies that are necessary for the particular development activity to be approved by the County, with the exception of the Federal Combined Construction Operating License.

c. A detailed site plan depicting that all development is contained within the designated Development Areas as shown on Exhibits A and B to SE 2-08 (herein the Development Areas), with the exception of fencing, industrial rail spur, temporary uses incidental to the construction of the facility, transmission lines and pipelines, berms, guard houses, water wells, monitoring wells, and internal roads necessary to provide internal access to these listed structures, and is setback a minimum of 1,000 feet from any property boundary where abutting properties are not under the same ownership as the subject property.

d. A detailed site plan depicting development within the proposed Development Areas, which reflects the areas, locations, sizes, and heights shown on Exhibit B to SE 2-08 and the tables on Exhibit C to SE 2-08, and which reflects any changes to those items shown on such Exhibits B and C to SE 2-08 in building, pavement, and/or structure size or height, relocation of buildings, pavement, and/or structures within the 954 acres of Development Area. Any such changes to Exhibit B and Exhibit C to SE 2-08 depicted on the site plan shall conform to the special exception requirements for electric generating facilities and the notes listed on Exhibit B to SE 2-08, which all shall allow for construction and operation of nuclear electric generating facilities subject to the Florida Electrical Power Plant Siting Act, Section 403.501 through 403.518, Fla.Stat., consisting of two reactor units generating a total electrical load of 3,000 megawatts and the necessary support services and structures required for the construction and operation of such facility including offices, training facilities, rail lines, storage areas, warehousing, first aid facilities, staging areas, parking lots, electrical transmission facilities, cooling towers, retention basins, shooting range, emergency notification equipment, fencing and security facilities, and temporary uses necessary for the construction of such facility including but not limited to concrete and/or asphalt batch plants.

e. A detailed site plan that depicts that all outdoor lighting will be directional and shall not radiate directly onto adjacent properties not under the same ownership as the subject property. There shall not be any off-site glare to adjacent properties not under the same ownership as the subject property. Applicant shall also include a photometric lighting plan.

f. A detailed site plan depicting that the maximum structure height does not exceed 250 feet.

g. A detailed site plan depicting paved pervious parking areas and services areas. Additional pervious parking areas and service drives necessary for internal circulation shall be permitted throughout the Special Exception area.

SECTION B. PLANT SPECIFIC CONDITIONS

h. A detailed site plan of the Special Exception area depicting that the maximum impervious surface does not exceed 20 percent of the total Special Exception area.

i. An updated traffic study for the site and associated facilities, reflecting projected traffic during construction and operational phases for the site and associated facilities. Such traffic study will be used to calculate the appropriate road impact fees for the site and associated facilities.

2. All documentation and other information submitted in response to Condition A.1. above shall meet all requirements and conditions of SE 2-08, and all applicable provisions of the Levy County Land Development Code and the Florida Building Code, and the requirements of the County Development Department, County Road Department, and County Engineer.

3. After review and approval by the County Development Department, the County Road Department, and the County Engineer, the Applicant will be permitted to perform the development of the site and associated facilities proposed by the documentation provided in Condition A.1. above, as such development has been approved by the County Departments and County Engineer.

4. Any development of the site and associated facilities shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

[Section 125.01(1)(h) and (cc), F.S.; Chapter 553, Part IV, F.S.; Florida Building Code; Section 102.2, Florida Building Code; Chapter 50, Levy County Code; Chapter 50, Article VIII, Levy County Code; Section 50-131, Levy County Code; Section 50-132, Levy County Code; Section 50-715, Levy County Code; Section 50-796 through 50-823, Levy County Code; Conditions of SE 2-08, approved by the Board of County Commissioners September 2, 2008]

B. Building/Construction Fees

Concurrent with the submittal of the documentation required in Condition A, or concurrent with the requests for inspections or for other services to which fees apply, as the case may be, the Applicant shall pay all of the County's fees for building permits, inspections, and any other fees related to the building permits for structures that are not exempt from the provisions of the Florida Building Code, as provided in Levy County Resolution 2007-24.

[Sections 1 and 10, Art. VII, Florida Constitution; Sections 125.01(1)(h) and (cc), F.S.; Section 403.511(4), F.S.; Chapter 553, Part IV, F.S.; Florida Building Code; Section 102.2, Florida Building Code; Chapter 50, Levy County Code; Section 50-131, Levy County Code; Levy County Resolution 2007-24]

C. Impact Fees

Prior to County's approval of the development of the site and associated facilities contemplated in SE 2-08 and Condition A, and prior to construction of any development of the site and associated facilities contemplated by SE 2-08 or in Condition A, the Applicant shall pay all of the County's emergency medical system impact fees and road impact fees for the site and associated facilities in accordance with Chapter 47, Articles III and IV, Levy County Code.

SECTION B. PLANT SPECIFIC CONDITIONS

[Sections 1 and 10, Art. VII, Florida Constitution; Section 403.511(4), F.S. Chapter 47, Article III, Levy County Code; Chapter 47, Article IV, Levy County Code]

D. Construction and Operation

Throughout the construction and operation of the site and associated facilities, the following conditions shall be maintained or met:

1. The use of the site is limited to the construction and operation of not more than two (2) nuclear reactor powered electrical generating plants and associated support structures, accessory structures and uses identified and shown on Exhibit B to SE 2-08. Any other uses shall not be allowed without an amendment to SE 2-08 approved by the Board of County Commissioners of Levy County.

2. No permanent entrance to the site shall be constructed from CR 40 for the purpose of operational phase work force access. This is not to preclude a roadway to provide access for the construction and maintenance of the site and associated facilities, and of electricity transmission lines and water lines used to convey cooling water pumped from the Cross Florida Barge Canal or return lines pumping water to the Crystal River Discharge Canal, emergency access or similar incidental access uses. This condition does not preclude the temporary use of the heavy haul road for the delivery of heavy equipment or materials for construction of the power plant(s), transmission lines, substation or water supply and return lines.

3. Construction and operation activities within the Special Exception area, including transmission and pipeline construction, shall not adversely impact adjacent properties not owned by the Applicant. Storm water run-off, and excessive dust, smoke, noise, glare and vibrations shall be considered adverse impacts.

4. Operational characteristics, such as noise, dust, vibrations and traffic shall at all times comply with all local, state and federal ordinances, laws and regulations. With regard to sound levels, maximum sound levels produced will not exceed 65 (dba) as measured from the property line of any adjacent property not under the same ownership as the subject property, sound levels will not exceed 55 (dba) between 10 p.m. and 7 a.m. as measured at the property line. With regard to vibrations, no vibration shall be transmitted which is discernable without instruments beyond the property line of the Special Exception area. The Applicant, or property owner or their assigns, shall promptly provide proof of compliance with any of the levels contained in this condition or with any other applicable ordinances, laws, or regulations relating to any operational characteristics in the event the County receives a complaint.

5. Permanent roadway access to the site shall only be from U.S. Hwy. 19.

6. Areas depicted as ponds are for stormwater detention only and will not be used for cooling or waste disposal purposes.

7. The Special Exception area will not be used as a base for off-site utility line maintenance.

8. The natural vegetation on the portions of the properties outside the designated Development Areas shall be maintained in its natural vegetated state.

9. A 100-foot natural vegetated buffer shall be maintained along the site property's perimeter where abutting properties are not under the same ownership as the site

SECTION B. PLANT SPECIFIC CONDITIONS

property. An access road for agricultural or other low impact uses may be integrated into the buffer.

[Section 125.01(1)(h), F.S.; Section 50-715, Levy County Code; Sections 50-796 through 50-823, Levy County Code; Conditions of SE 2-08, approved by the Board of County Commissioners September 2, 2008]

E. Driveway Access

1. In the event the Applicant proposes any access to CR 40 for access to the site through Applicant's property that is adjacent to CR 40 for any purpose, and such access will not concurrently or later act as the heavy haul road (herein "driveway access"), at least thirty (30) days prior to any construction activities related to such driveway access, the Applicant shall provide all the following items to the County:

- a. A completed County driveway permit form.
- b. A detailed description of the proposed uses for such driveway access, including but not limited to estimated traffic volume, traffic composition, and proposed weights of loads that will use the driveway access.
- c. Engineering and construction plans for such driveway access.
- d. Maintenance of traffic plans for maintenance of traffic during construction of such driveway access.

(e) Any other documentation or information required by the County Road Department for its review of the use and construction of the driveway access.

2. Such engineering and construction plans, and other information and documentation, and the construction of the proposed driveway access, shall meet requirements of the then-current Florida Department of Transportation manual, Standard Specifications for Road and Bridge Construction and any Special Provisions adopted by the County Engineer in accordance with the provisions thereof, and the then-current Florida Department of Transportation manual, Design Standards for the Design, Construction, Maintenance, and Utility Operations on the State Highway System, and the requirements of the County Road Department.

3. After review and approval of such engineering and construction and maintenance of traffic plans by the County Road Department and County Engineer, the Applicant may construct the driveway access in accordance with such approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the driveway access, as provided in Levy County Resolution 2007-24.

6. No use of the driveway access for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

SECTION B. PLANT SPECIFIC CONDITIONS

7. After final inspection approval, the use of the driveway access shall be limited to the uses contemplated and addressed in the description of the proposed use of the driveway access previously submitted for review.

8. Unless the driveway access is proposed to also act as the heavy haul road, and the provisions of Condition F for the heavy haul road have been met, the driveway access shall not be used to transport any equipment or other items that exceed the weight capacity of CR 40 as posted or that were not contemplated or addressed in the description of the proposed uses of the driveway access previously submitted for review.

9. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

10. The Applicant shall maintain the driveway access in good condition and shall make any repairs to CR 40 caused by use of such driveway access.

[Sections 1 and 10, Art. VII, Florida Constitution; Section 125.01(1)(m), F.S.; Section 336.02, F.S.; Section 336.045, F.S.; Section 403.511(4), F.S.; Section 62-17.133, F.A.C.; Objective 1, Transportation Element, Levy County Comprehensive Plan; Policy 4.2, Transportation Element, Levy County Comprehensive Plan; Section 50-381, Levy County Code; Section 50-715, Levy County Code; Levy County Resolution 2007-24]

F. Heavy Haul Road

1. At least sixty (60) days prior to any activities in the transmission line corridor, the power plant site, or any of the Applicant's adjacent property, that may utilize the heavy haul road, or any other use of the heavy haul road across CR 40, the Applicant shall provide all of the following to the County for its review and approval:

- a. A completed County driveway permit form.
- b. A detailed description of the proposed uses for such heavy haul road across CR 40 and adjacent right-of-way, including but not limited to estimated traffic volume, traffic composition, and proposed weights of loads that will use the heavy haul road.
- c. Engineering and construction plans providing for the design and construction of the heavy haul road within County right-of-way.
- d. Engineering and construction plans depicting any structural improvements that may be required to prevent and prohibit degradation of the structural integrity of CR 40 and the adjacent right-of-way as a result of the Applicant's proposed use of the heavy haul road.
- e. Engineering and construction plans depicting the proposed location, design, and construction of the temporary connection to CR 40 Applicant proposes to use for the heavy haul road.
- f. Maintenance of traffic plans for use during construction of both the heavy haul road and any improvements to CR 40 and adjacent right-of-way required to maintain structural integrity of CR 40.
- g. Maintenance of traffic plans for use during the Applicant's proposed use of the heavy haul road for construction of any development on the site or the associated facilities, or for any other purpose; and

SECTION B. PLANT SPECIFIC CONDITIONS

h. Any other documentation or information required by the County Road Department, Development Department, or County Engineer for review of the Applicant's use and construction of the heavy haul road and any related improvements to CR 40.

2. Such engineering and construction plans and other information and documentation, and the construction of the heavy haul road, shall meet requirements of the then-current Florida Department of Transportation manual, Standard Specifications for Road and Bridge Construction and any Special Provisions adopted by the County Engineer in accordance with the provisions thereof, and the then-current Florida Department of Transportation manual, Design Standards for the Design, Construction, Maintenance, and Utility Operations on the State Highway System, and the requirements of the County Road Department, Development Department and County Engineer.

3. After review and approval of the engineering and construction plans and maintenance of traffic plans by the County through its Road Department, Development Department, County Engineer, and the Levy County Sheriff (only maintenance of traffic plans need to be reviewed by Sheriff), the Applicant may construct the heavy haul road, any structural improvements required to maintain the integrity of CR 40 and the adjacent right-of-way, and improvements constituting the connection of the heavy haul road to CR 40, each to be in accordance with the approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the heavy haul road, as provided in Levy County Resolution 2007-24.

6. No use of the heavy haul road for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

7. After final inspection approval, the use of the heavy haul road shall be limited to the uses contemplated and addressed in the engineering plans submitted for prior review.

8. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

9. Prior to use of the heavy haul road, the Applicant also shall provide a schedule for the loads that Applicant proposes to transport across CR 40 using the heavy haul road that will exceed the weight capacity of CR 40 as posted. The Applicant may amend such schedule upon 48 hours notice to the County of any such amendment.

10. Throughout the Applicant's use of the heavy haul road, the Applicant shall continuously maintain that portion of CR 40 traversed by the heavy haul road to meet rolling straight edge requirements contained in the most current edition of Florida Department of Transportation manual, Standard Specifications for Road and Bridge Construction. The County shall have the ability to inspect CR 40 at any time for compliance with this maintenance provision. The Applicant shall pay all of the County's costs for staff time and other costs incurred in connection with any such inspections upon request for payment by the County. In the event that the rolling straight edge requirements are not being met on that portion of CR 40

SECTION B. PLANT SPECIFIC CONDITIONS

traversed by the heavy haul road at any time, the County shall have the ability to suspend the Applicant's use of the heavy haul road until sufficient improvements are made to maintain the rolling straight edge requirements described herein.

11. After the completion of the use of the heavy haul road for construction or maintenance activities related to the site and associated facilities, the Applicant shall make any repairs to CR 40 and the adjacent right-of-way in the area of the heavy haul road that have been caused by the Applicant's use of CR 40 and the adjacent right-of-way.

NOTE: As an alternative to compliance with this Condition F, the Applicant may enter into a development agreement with the County to provide for the provision of plans, construction and operation of the heavy haul road. Any such agreement shall be entered into and fully executed by both the Applicant and the County prior to any use of the heavy haul road.

[Sections 1 and 10, Art. VII, Florida Constitution; Section 125.01(1)(m), F.S.; Section 336.02, F.S.; Section 336.045, F.S.; Section 403.511(4), F.S.; Section 62-17.133, F.A.C.; Objective 1, Transportation Element, Levy County Comprehensive Plan; Policy 4.2, Transportation Element, Levy County Comprehensive Plan; Section 50-381, Levy County Code; Section 50-715, Levy County Code; Levy County Resolution 2007-24]

XXIX. WITHLACOOCHEE REGIONAL PLANNING COUNCIL

A. Emergency Preparedness

1. To maintain consistency with the SRPP's emergency preparedness content, the licensee is encouraged to work with affected local governments and other stakeholders to fully integrate the plant into all emergency management planning processes.

2. The licensee is encouraged to integrate each of the main plant's associated facilities into overall emergency management and response planning for the proposed nuclear power generation complex, so that the same standard of preparedness applies to all facilities covered by the site certification application process.

3. Due to the flood-prone nature of the site and vicinity, the licensee is encouraged to organize and implement hazard mitigation efforts of the type employed at more vulnerable coastal power stations. Adverse and unintended consequences could result when essential infrastructure serving a region fails to operate because of area specific hazards.

[Policies 3.1.2, 3.6.1, 3.8.6, and Goals 3.1, 3.7, 5.8, Strategic Regional Policy Plan (SRPP)]

B. Transportation

1. The Licensee is encouraged to ensure that development of the main plant and associated facilities does not constrain, impede or otherwise limit future development of the region's transportation system.

2. In conjunction with all interested parties, the licensee is encouraged to examine how plant construction and operation could impact the use of the Cross Florida Barge Canal; a necessary preliminary task would be to initiate a capacity analysis to help inform the decision-making process.

SECTION B. PLANT SPECIFIC CONDITIONS

3. The licensee is encouraged to be an active stakeholder in the transportation planning process, working within local and state processes alike, to forward best case outcomes for regionally significant transportation facilities.

[Policies 5.2.1, 5.5.7, 5.7.2, and Goals 5.2, 5.4, 5.5, 5.9, SRPP]

C. Economic Development

1. The licensee is encouraged to cooperate broadly with workforce development agencies, community colleges and universities, as well as economic development organizations to maximize local employment during plant construction and operations.

2. To protect the region's viability as an eco-tourism destination, the licensee is encouraged to ensure that associated facilities make the least visible impact to viewsheds.

3. Co-location with other uses to the greatest extent possible may represent a best case economic outcome. Staff urges investigation of the methods that would make such activity feasible.

4. The licensee is encouraged to design and place associated facilities so that future expansion will be located in proximity to existing improvements or in common facility corridors as a practical approach to safeguard the region's character as an eco-tourism destination.

[Policies 2.3.7, 2.3.10, 2.7.2, 4.15.1, and Goals 2.3, 2.9, 2.11, 2.12, SRPP]

D. Natural Resources

1. The licensee is encouraged to engage the site design process to still further reduce the amount of impervious surface area created by the main plant and associated facilities. Action beyond minimum standards necessary for approval is meaningful.

2. Where feasible, the licensee is encouraged to make all impact monitoring data publicly accessible when available.

[Policies 4.3.3, 4.3.4, 4.4.9, 4.8.5, 4.8.6, 4.8.11, 4.9.4, 4.11.5, 4.12.5, 4.12.8, 4.12.9, 4.12.10, 4.13.2, and Goals 4.3, 4.4, 4.8, 4.9, 4.10, 4.11, , SRPP]

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

The conditions in Section C relate to the certified corridors for the transmission lines (“certified transmission lines”).

XXX. EMERGENCY REPORTING

Replacement of ROW access roads or transmission lines constructed under this certification necessitated by emergency conditions shall not be considered a modification pursuant to Section 403.516, F.S. (2008). An oral report of the emergency shall be made to DEP as soon as possible. Within 14 calendar days after correction of an emergency or such longer time as authorized by Executive Order, which would require PEF to perform an activity not in accordance with the Conditions of Certification, a report to DEP shall be made outlining the details of the emergency and the steps taken for its temporary relief. The report shall be a written description of all of the work performed and shall set forth any pollution control measures or mitigative measures which were utilized or are being utilized to prevent pollution of waters, harm to sensitive areas, or alteration of archaeological or historical resources.

[Section 403.511, F.S.]

XXXI. CERTIFIED CORRIDORS

A map of the certified corridors is attached hereto in Attachment 2.

[Section 403.511, F.S.]

XXXII. SUBMITTALS AND NOTICES REQUIRED BY CONDITIONS

Post-certification submittals and notices shall be sent, as specified in these Conditions, to the agencies specified in these Conditions at the following addresses, unless PEF and DEP are notified in writing of an agency’s change in address for such submittals and notices:

Florida Department of Environmental Protection
Siting Coordination Office, MS 48
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3900

Florida Department of Environmental Protection
Southwest District Office
13051 N Telecom Parkway
Temple Terrace, FL 33637-0926

Florida Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7577

Florida Department of Community Affairs
Office of the Secretary
2555 Shumard Oak Blvd.
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission
Office of Policy and Stakeholder Coordination
620 South Meridian Street
Tallahassee, FL 32399-1600

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

Florida Department of Transportation
District Administration
605 Suwannee Street
Tallahassee, Florida 32399-0450

Florida Department of Agriculture and Consumer Services
Division of Forestry
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

East Central Florida Regional Planning Council
Office of the Executive Director
631 North Wymore Rd., Ste 100
Maitland, FL 32751

Withlacoochee Regional Planning Council
Office of the Executive Director
1241 S.W. 10th Street
Ocala, FL 34471-0323

Tampa Bay Regional Planning Council
Office of the Executive Director
4000 Gateway Centre Blvd., Ste. 100
Pinellas Park, FL 33782

St. Johns River Water Management District
Office of General Counsel
4049 Reid Street
Palatka, FL 32178-1429

Southwest Florida Water Management District
Office of General Counsel
2379 Broad Street
Brooksville, FL 34604-6899

Florida Department of State,
Division of Historical Resources
500 S. Bronough Street
Tallahassee, FL 32399-0250

Levy County
Planning Department
P.O. Box 1373
Bronson, FL 32621

Citrus County
Planning Department
Citrus County Courthouse
110 N. Apopka Ave.
Inverness, Florida 34450

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

Sumter County
Planning Department
910 North Main Street, Suite 301
Bushnell, FL 33513

Hernando County
Planning Department
20 North Main Street, Room 363
Brooksville, FL 34601-2849

Hillsborough County
Planning Department
County Center, 26th Floor
601 E. Kennedy Blvd.,
Tampa, FL 33602

Hillsborough County Environmental Protection Commission
Director Office
Roger P. Stewart Center
3629 Queen Palm Dr
Tampa, FL 33619-1309

Polk County
Planning Department
330 W. Church Street
Bartow, FL 33830

Pinellas County
Planning Department
600 Cleveland Street, Suite 750
Clearwater, FL 33755

Marion County
Planning Department
601 SE 25th Avenue
Ocala, FL 34471-9109

[Section 403.511, F.S.]

XXXIII. ROW LOCATION

A. PEF shall co-locate the transmission lines' ROW to the extent feasible within or adjacent to existing public rights-of-way for those portions of the corridor which include such existing public rights-of-way. To the extent a widened road right-of-way has been acquired by the appropriate governmental agency at the time of final transmission line design, PEF's design shall reflect that new widened right-of-way.

B. To the extent feasible PEF shall locate the transmission lines' ROW so as to avoid the taking of homes.

C. PEF will locate the transmission lines' ROW so as to avoid Outstanding Florida Waterbodies (OFW) to the extent feasible and practicable, and locate the ROW within an OFW only upon a showing that the ROW alignment is clearly in the public interest.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

D. Unless the underground facility owner is responsible for resolving the conflict, to the extent practicable and utilizing the typical structures shown in the Application, after finalization of the ROW and prior to construction, access roads, culverts and structures shall be located to avoid conflict with existing underground water and sewer facilities properly documented in county records.

[Sections 403.526(2)(b)3, 403.522(18), 403.526(2)(a)5, and 258.007(4), F.S.]

XXXIV. PROCESS FOR REVIEW OF ROW LOCATION

A. Prior to the finalization of the ROW location, three copies of the most recent available aerial photographs at a scale of 1" = 400' with wetland locations generally identified shall be submitted to DEP Siting Coordination Office, and one copy each to DEP Southwest and Northeast District Office, State Forest, Office of Greenways & Trails (OGT), DOT, DCA, SWFWMD, SJRWMD, Withlacoochee Regional Planning Council, East Central Florida Regional Planning Council, Tampa Bay Regional Planning Council, and Levy, Citrus, Sumter, Hernando, and Hillsborough Counties, and the Hillsborough County EPC, delineating the certified corridors and the selected transmission lines' ROW for the areas within each agency's jurisdiction. In addition, PEF shall note on the aerial photographs new construction within the corridors that has occurred since the photograph was taken. PEF shall notify all parties of such filing and, if needed, shall meet with DEP to discuss the ROW location. This information may be submitted in segments and on a line-by-line basis. The agencies receiving the aerial photographs from PEF shall have an opportunity to review the photographs and to notify DEP, within 12 days of PEF's submittal of the aerial photographs to the agencies, of any apparent conflicts with applicable regulations and/or requirements of the Conditions of Certification. However, this paragraph shall not operate to avoid the need for post-certification submittals and compliance reviews otherwise required by the Conditions of Certification.

B. After review of the aerial photographs and comments from the other reviewing agencies, if DEP Siting Coordination Office has reason to believe that the construction of the transmission lines, access roads or pads within PEF's designated ROW cannot be accomplished in compliance with the Conditions of Certification, PEF shall be so notified in writing, with copies to other parties to the certification proceeding of the particular basis for DEP's conclusion, and possible corrective measures which would bring the Project into compliance. If such notice is not received within 15 days of PEF's submittal of the aerial photographs to the agencies, PEF may proceed with design of the transmission lines on the noticed ROW.

C. The acquisition of a particular ROW or the expenditure of funds toward acquisition of a particular ROW prior to the agencies' review pursuant to this condition will be at PEF's risk, and no party will be stopped by such acquisition to seek disapproval of the construction of the transmission lines or access road within the ROW in accordance with these Conditions of Certification.

D. After PEF has acquired interest in the entire length of the transmission lines' ROW, PEF shall:

1. File a statement with the clerk of the circuit court for each county through which the corridors pass certifying that all lands required for the transmission lines' ROW within the corridors have been acquired. PEF shall also file with the appropriate county Planning Department a map at the scale of 1" = 400' showing the boundaries of the acquired ROW.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

2. File with DEP Siting Coordination Office a map at a scale of 1" = 400' showing the boundaries of the acquired ROW, if such boundaries are different from those shown in the filing required by paragraph A above. Such maps shall comply with the requirements of paragraph A. If the boundaries have not changed, PEF shall file a statement with DEP Siting Coordination Office accordingly.

E. Once the ROW has been determined, PEF will submit information to each county, as appropriate, that is consistent with information typically submitted for appropriate County ROW permits.

[Sections 403.511, F.S.; 62-17.191, F.A.C.]

XXXV. DRAINAGE AND EROSION CONTROL

A. Maintenance of Drainage/Hydroperiod

1. PEF shall employ best management practices, construction techniques, and adequate culverting in order to maintain existing drainage patterns along the transmission lines' ROW. Within all wetland areas affected, wetland control elevations shall be established and maintained. This condition shall not preclude PEF from improving preconstruction hydroperiods provided such improvement can be achieved in compliance with the other Conditions of Certification. PEF shall be deemed to have satisfied this condition if the access and finger roads satisfy the criteria of Rules 40D-4.301 and 40D-4.302, F.A.C.

2. Access roads and other nonexempt surface water management system facilities constructed in upland areas shall meet the conditions set forth in Rules 40D-4.301 and 40D-4.302, F.A.C., and applicable provisions of Part B, Basis of Review of SWFWMD's Environmental Resource Permitting Information Manual, including but not limited to Section 4.4, or if appropriate, the SJRWMD's Environmental Resource Permitting Information Manual.

[Sections 373.416 and 403.511, F.S.; Rules 40D-4.091, 40D-4.301, and 40D-4.302, F.A.C.]

B. Erosion/Runoff Control

1. PEF shall compact or otherwise stabilize any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

2. Grass seed and mulch or sod must be installed and maintained on exposed slopes prior to finalization of construction, and at all times measures must be taken to prevent erosion, sedimentation or turbid discharges into wetlands and or waters of the state, where the soils have been disturbed during construction.

3. To control runoff which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden storm water to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units (NTU) above background in waters of the state. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings, and must be maintained in effective condition at all locations where sediment has the potential to reach nearby wetlands until construction in the area is completed and disturbed soil areas are stabilized. Exposed or disturbed soil shall be protected and stabilized as soon as

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

possible to minimize silt and sediment-laden runoff. The pH of the runoff shall be kept within the range of the applicable nonprocedural requirements in Rule 40D-4, F.A.C.

4. PEF shall ensure that adjacent properties are not impacted by wind erosion, or emissions of unconfined particulate matter in accordance with Rule 62-296.320(4)(c)1., F.A.C., by taking appropriate measures to stabilize affected areas.

[Section 403.511, F.S.; Rules 40D-4.381, and 62-296.320, F.A.C.]

XXXVI. ELECTRIC AND MAGNETIC FIELD EFFECTS

A. Bee Hives

PEF shall advise beekeepers, known at the time the ROW is established or acquired, having bee hives within or near the ROW of the potential effect of the transmission line on bee hives.

[403.511, F.S.]

B. Radio Interference

PEF shall investigate all complaints and take appropriate corrective action for impacts to radio or television reception caused by the proposed transmission line.

[403.511, F.S.]

C. Electric and Magnetic Fields

The transmission lines shall comply with the applicable electric and magnetic field standards set forth in Chapter 62-814, F.A.C. The electric and magnetic fields associated with any configuration developed during the final design of this project that is not shown in the Application shall be provided to DEP on DEP Form 62-814.900 at least 90 days prior to the start of construction, or such shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), F.A.C.

[Section 403.523(10), F.S.; Chapter 62-814, F.A.C.]

XXXVII. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A. Submittals for Activities Within Wetlands or Other Surface Waters

1. Prior to the projected commencement of construction of any portion of the transmission lines in wetlands or other surface waters, PEF shall provide to DEP's Southwest and Northeast Districts' Environmental Resource Permitting Sections all information necessary for a complete *Joint Environmental Resource Permit application*, DEP Form No. 62-343.900(1), with copies to SWFWMD, SJRWMD, Withlacoochee Regional Planning Council, East Central Florida Regional Planning Council, Tampa Bay Regional Planning Council, and Levy, Citrus, Sumter, Hernando, and Hillsborough Counties, and the Hillsborough County EPC for informational purposes for the portions of the transmission lines in each agency's jurisdiction. Information may be submitted by discrete sections of the ROW and/or on a line-by-line basis; PEF shall consult with the DEP to identify mutually agreeable sections for purposes of wetlands submittals. The completed form for each section shall be reviewed pursuant to Condition VIII. "Construction" in this context shall include land clearing, excavation, and the placement of structure pads, access roads, culverts, fill materials, and related activities. Construction activities shall not include the stringing of conductors.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

2. PEF shall provide reasonable assurance that the construction, operation and maintenance of the proposed facilities, including any access roads and structures constructed within wetlands and other surface waters, satisfy the criteria set forth in Rules 40D-4.301 and 40D-4.302, F.A.C., and the applicable portions of Part B, Basis of Review of SWFWMD's Environmental Resource Permitting Information Manual. Pursuant to Rule 62-17.665(7)(d), F.A.C., the Licensee shall provide sufficient information on a post-certification basis to demonstrate that there is reasonable assurance of compliance with SWFWMD, or if applicable SJRWMD, nonprocedural requirements.

3. The post-certification submittal shall include a signed and sealed Professional Land Surveyors' survey of wetland and surface water areas as defined pursuant to Chapter 62-340, F.A.C., and verified by appropriate agency staff. Available SWFWMD-approved or SJRWMD-approved wetland and surface water verifications within the boundaries of the PEF ROW may be used and reproduced for this delineation consideration.

4. The Licensee shall provide to the Department's District Office and Water Management District, as appropriate, information necessary to demonstrate that compensation will be provided for all proposed fill impacts to the regulated floodplain in accordance with rules adopted by the Department. The Licensee shall also demonstrate that the project, as proposed, will not cause a reduction in flood conveyance.

[Sections 373.414, 373.416, 403.526(2)(b)3., 403.522(18), 403.526(2)(a)5., F.S.; 40D-4.091, 40D-4.101, 40D-4.301, 40D-4.302, 62-17.665(7)(d), 62-340, and 62-343.900(1)(Section E and C), F.A.C.]

B. Consultation with Wetland Agencies

At the request of PEF, DEP Siting Coordination Office may conduct an interagency meeting for PEF to consult with the wetlands resource permitting staffs of DEP, SWFWMD or SJRWMD as appropriate, prior to the finalization of possible access road locations, transmission line structure locations, and the establishment of water control structure types and general locations in wetlands which are to be reflected in any post-certification submittals. At DEP's request, PEF shall conduct a field inspection with the agencies' staff representatives in conjunction with the interagency meeting.

[Section 403.523, F.S.]

C. Reduction and Elimination of Impacts

1. Access Roads, Culverts, and Structures

a. Where the ROW crosses wetlands or other surface waters, PEF shall utilize adjacent existing PEF access roads and public roads for access to the transmission line ROW for construction, operation and maintenance purposes to the extent practicable.

b. All access roads and structure pads which must be constructed in areas where an existing PEF access road or public road is not available shall be constructed in a manner which reduces or eliminates adverse impacts to on-site and adjacent wetlands to the extent practicable. PEF shall be deemed to have satisfied this condition if the access and finger roads satisfy the criteria of Rules 40D-4.301 and 40D-4.302, F.A.C.

c. Where practicable, PEF shall make an effort to reduce or eliminate impacts to wetlands and other surface waters within the certified corridor except as otherwise

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

provided in section 3.2.1.2 of Part B, Basis of Review of SWFWMD's Environmental Resource Permitting Information Manual, or the SJRWMD's ERP Manual, as appropriate. For example, where practicable, the length of the span between transmission line structures shall be varied and other design changes made, which shall include but not be limited to a reduction in pad size, elimination of access roads, use of finger fill from existing ROWs and/or modification of construction techniques shall be considered to eliminate or reduce wetland impacts, except where otherwise provided by section 3.2.1.2.

d. In the event temporary fill is used to facilitate construction of the transmission line, the temporary fill shall be removed where necessary to minimize impacts to wetlands or habitats of listed species.

2. Wetland Clearing

a. PEF shall use only restrictive clearing practices during construction and maintenance of the transmission line where it crosses forested wetlands. Restrictive clearing, as used in this condition, is the removal of vegetation by hand, usually with chain saws, or with low-ground-pressure shear or rotary machines to reduce soil compaction and damage to ground cover. These methods may be used alone or in combination, as may be appropriate for specific sites. All cut vegetation must be removed from wetlands unless other techniques, such as mulching or burning in place, are agreed to by DEP Siting Coordination Office and Levy County (for portions of the lines located in Levy County) in the post-certification review process. To ensure no more than necessary vegetation is removed, best management practices will be applied to any clearing on each side of the outer conductors, along new access roads, and in the structure pad areas. Removable construction matting in conjunction with best management practices may be used in wetlands to support equipment. The remainder of the ROW in wetland areas shall not be cleared; however, vegetation that has an expected mature height greater than 14 feet may be removed. In addition, danger timber (trees or limbs likely to contact a conductor if felled) within or outside the right-of-way may be removed.

b. Tree stumps under the conductors, within access roads and in the structure pads may be removed, sheared, or ground to 6 inches below the ground line to allow for travel and construction activities. Tree stumps in the areas outside the conductors, access roads, and structure pads shall be left in place to preserve the root mat to the extent practicable and in compliance with Section 163.3209, F.S., the American national Standards Institute (ANSI), National Electrical Safety Code (NESC), and North American Electrical Reliability Corporation (NERC) standards.

[Section 373.414 and 373.416, F.S.; 40D-4.091, 40D-4.101, 40D-4.301, 40D-4.302, and 40D-4.381, F.A.C.]

D. Mitigation

1. For each transmission line certified as part of the Project, mitigation may not be required by DEP if the project is not located within wetlands, is not expected to adversely impact wetlands or complies with the following conditions:

a. All permanent fill shall be at grade. Fill shall be limited to that necessary for the electrical support structures, towers, poles, guy wires, stabilizing backfill, and at-grade access roads limited to 20-foot widths; and

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

b. The Licensee may utilize access and work areas limited to the following: a linear access area of up to 25 feet wide between electrical support structures, an access area of up to 25 feet wide to electrical support structures from the edge of the right-of-way, and a work area around the electrical support structures, towers, poles, and guy wires. These areas may be cleared to ground, including removal of stumps as necessary; and

c. Vegetation within wetlands may be cut or removed no lower than the soil surface under the conductor, and 20 feet to either side of the outermost conductor, while maintaining the remainder of the project right-of-way within the wetland by selectively clearing vegetation which has an expected mature height above 14 feet. Brazilian pepper, Australian pine, and melaleuca shall be eradicated throughout the wetland portions of the right-of-way; and

d. Erosion control methods shall be implemented as necessary to ensure that state water quality standards for turbidity are met. Diversion and impoundment of surface waters shall be minimized; and

e. The proposed construction and clearing shall not adversely affect threatened and endangered species; and

f. The proposed construction and clearing shall not result in a permanent change in existing ground surface elevation.

g. Where fill is placed in wetlands, the clearing to ground of forested wetlands is restricted to 4.0 acres per 10-mile section of the project, with no more than one impact site exceeding 0.5 acres. The impact site which exceeds 0.5 acres shall not exceed 2.0 acres. The total forested wetland clearing to the ground per 10-mile section shall not exceed 15 acres. The 10-mile sections shall be measured from the beginning to the terminus, or vice versa, and the section shall not end in a wetland.

h. Clearing or fill must not occur within 550 feet from the shoreline of a named waterbody designated as an Outstanding Florida Waterbody (OFW).

2. If a line does not comply with the requirements of paragraph A above, mitigation can be required. For construction in wetlands that does not comply with those requirements, PEF shall propose a mitigation plan as a post-certification submittal under Condition VIII. The following information shall be provided to the DEP Southwest and Northeast Districts Environmental Resource Permitting Section for review and to other affected counties, for portions of the line located in those counties, for informational purposes:

a. detailed description, location map, and recent aerial photograph of each wetland impact area in which the Rule 62-341.620(2)(b)-(i), F.A.C., limitations were not met;

b. acreage of the type and quality of wetland being impacted at each such site;

c. narrative, drawings, location map, and aerial photographs showing and explaining the proposed mitigation, or in the case of a mitigation bank, the name and location of the bank;

d. detailed description of the existing conditions at the impact site and, unless a mitigation bank is proposed, at the mitigation area;

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

e. acreage and wetland type of the proposed mitigation, or for a mitigation bank, the type and number of credits;

f. if not a mitigation bank, documentation providing reasonable assurance that the proposed mitigation will be successful; and

g. an analysis pursuant to Chapter 62-345, F.A.C., to the extent applicable.

h. To the extent mitigation will be provided from a mitigation bank, a credit reservation letter will be provided from the selected bank demonstrating the necessary credits are being set aside to offset project impacts.

3. Mitigation plans must be found to fully offset the functions and values provided by wetlands that will be degraded or eliminated to the abundance and diversity of fish, wildlife and listed species, and the habitat of fish, wildlife and listed species. DEP will work with PEF in the development of acceptable mitigation plans for the impact areas using UMAM. The mitigation plans proposed by PEF shall be submitted for review and compliance monitoring to DEP under Condition VIII. Provide the supporting UMAM information required in Chapter 62-345, F.A.C. A restoration plan will be provided for the impact areas by PEF.

4. If DEP, upon review of the proposed mitigation plan, determines that the proposed mitigation is inadequate to offset the loss of wetland values described above from this project, PEF may propose additional or alternative mitigation or dispute the determination pursuant to Condition IX.

5. If the proposed mitigation plan is deemed acceptable by DEP and does not involve the use of a mitigation bank, the construction conditions, success criteria and a monitoring plan will be incorporated into the construction conditions as an Attachment.

6. No construction within wetlands subject to the regulatory jurisdiction of DEP that does not comply with the non-procedural limitations of Rule 62-341.620(2)(b)-(i), F.A.C., or paragraph A above, shall commence until DEP approves a mitigation plan, and, if a bank is not used, mitigation construction conditions, success criteria and a monitoring plan are incorporated into the certification conditions.

7. PEF shall be deemed to have met the requirements of this condition if PEF satisfies the criteria of either Section 3.3 or Appendix 4(3) of the SWFWMD's Basis of Review for Environmental Resource Permit Applications (February 2007) or SJRWMD's ERP Basis of Review as appropriate, and Chapter 62-345, F.A.C., if applicable.

[Section 373.414, 403.511, and 403.814(6), F.S.; 40D-4.091, 40D-4.301, 40D-4.302, 62-341.620, F.A.C., and 62-345, F.A.C.]

E. Greenways and Trails

The Licensee shall provide compensation as mandated by the Board of Trustees, as a condition for the use of Cross Florida Greenway Lands. This compensation may include a perpetual easement to the Office of Greenways and Trails (OGT) for a future trail on the PEF owned corridor from Dunnellon, north to Chiefland. Upon approval of the exchange by the Board of Trustees, the terms of that approval shall supersede this condition and shall be incorporated into these Conditions of Certification.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

XXXVIII. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**A. Listed Species Occurring or Potentially Occurring in the Corridors**

Common Name	Scientific Name	FL Status	Federal Status
Gopher frog	<i>Rana capito</i>	SSC	
Eastern indigo snake	<i>Drymarchon couperi</i>	T	T
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	SSC	
Short-tailed snake	<i>Stilosoma extenuatum</i>	T	
Gopher tortoise	<i>Gopherus polyphemus</i>	T	
Florida scrub jay	<i>Aphelocoma coerulescens</i>	T	T
Little blue heron	<i>Eareta caerulea</i>	SSC	
White ibis	<i>Euudocimusa lbus</i>	SSC	
Southeastern American kestrel	<i>Falcosp aiverius paulus</i>	T	
Florida sandhill crane	<i>Grus canadensis vratensis</i>	T	
Whooping crane	<i>Grus americana</i>	SSC	E*(federal lands)
Red-cockaded woodpecker	<i>Picoides borealis</i>	SSC	E
Snail kite	<i>Rostrhamus sociabilis plumbeus</i>	E	E
Florida mouse	<i>Podomys. floridanus</i>	SSC	
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	SSC	
Florida black bear	<i>Ursus americanus floridanus</i>	T*	

SSC = Species of Special Concern; E= Endangered; T= Threatened

*except in Baker and Columbia Counties or in Apalachicola National Forest

B. General Listed Species Survey

1. The Licensee will coordinate with the FWC to obtain the current survey protocols for all listed species that may occur within the transmission lines' corridor or could be affected by the transmission corridor prior to conducting detailed surveys for the selected transmission line right-of-way (ROW) once access has been obtained.

2. The results of those detailed surveys will be provided to FWC, as well as any local governments for informational purposes, and coordination will occur with the FWC on appropriate impact mitigation methodologies.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

C. Gopher Tortoise

1. The Licensee will conduct surveys for gopher tortoises (*Gopherus polyphemus*), in accordance with the FWC-approved Gopher Tortoise Management Plan (adopted in 2007) and Gopher Tortoise Permitting Guidelines. A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4, Methods for Burrow Surveys on Development (Donor) and Recipient Sites. Surveys must be conducted within 90 days of when an application is submitted to the FWC; however, surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other licensees are subject to field verification by the FWC. The gopher tortoise surveys should be conducted during the months of April through October.

2. A permit is not required for activities that occur more than 25 feet from a gopher tortoise burrow entrance, provided that such activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by the FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow; harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken.

3. The Licensee will coordinate with and provide the FWC a detailed gopher tortoise relocation permit application in accordance with the FWC-approved Gopher Tortoise Management Plan and Gopher Tortoise Permitting Guidelines. This permit application will provide information on the location for on-site recipient areas and any off-site FWC-approved recipient site, as well as appropriate mitigation contributions.

4. Any commensal species observed during the burrow excavations that are listed by the U.S. Fish and Wildlife Service (USFWS) or FWC will be relocated in accordance with the applicable guidelines for that species.

D. Bald Eagle

1. The Licensee will avoid impacts to bald eagle (*Haliaeetus leucocephalus*) nests where possible. If impacts cannot be avoided within the 660-foot nest buffer zone, construction activities will be conducted consistent with the FWC Eagle Management Guidelines, outlined in the FWC Bald Eagle Management Plan, dated April 9, 2008, or any subsequent versions. In areas where bald eagle nests are present, efforts will be made to avoid construction activities during the nesting season (October 1 - May 15, or when eagles are present before October 1 or after May 15).

2. In accordance with the FWC Eagle Management Guidelines, for construction areas that fall within 330 feet of an active or alternate bald eagle nest, construction activities will be conducted only during the non-nesting season

(May 16 - September 30). Any construction activities that fall within 660 feet of the nest during the nesting season will be conducted following USFWS Bald Eagle Monitoring Guidelines, dated 2007, or subsequent versions.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

3. In areas where adverse impacts to nests cannot be avoided, resulting in nest disturbance, the information required for an FWC Eagle Permit will be obtained from the FWC, as authorized by Section 372.072, F.S., and Rule 68A-16.002, F.A.C., and minimization, conservation and mitigative measures outlined in the FWC Bald Eagle Management Plan will be followed, as applicable.

E. Red-Cockaded Woodpecker

1. The Licensee will coordinate with the FWC prior to conducting surveys for red-cockaded woodpeckers (*Picoides borealis*) to ensure that surveys are in accordance with the FWC-approved Red-Cockaded Woodpecker Management Plan, adopted in 2003 and the USFWS Red-Cockaded Woodpecker Recovery Plan.

2. The Licensee will provide the FWC with the red-cockaded woodpecker survey results and identify where impacts to red-cockaded woodpeckers cannot be avoided.

3. The Licensee will coordinate with the FWC to determine mitigative measures for areas where impacts to red-cockaded woodpeckers cannot be avoided.

F. Avian Protection Plan

The Licensee will coordinate with the FWC in the development of an Avian Protection Plan for the certified facilities that delineates a program designed to reduce the operational and avian risks that result from avian interactions with electric utility facilities with the goal of reducing avian mortality. Guidelines for the Avian Protection Plan can be found on the USFWS website at:

<http://www.fws.gov/migratorybirds/issues/APP/AVIAN%20PROTECTION%20PLAN%20FINAL%204%2019%2005.pdf>. A copy of the Avian Protection Plan for transmission lines in Levy County will be submitted to Levy County for informational purposes.

[Article IV, Sec. 9, Fla. Constitution; 403.5113(2), F.S.; Rule 62- 17.191, F.A.C.; 379.2291, F.S.; Rule 68A-27, and 68A-16.001 F.A.C.]

XXXIX. DEPARTMENT OF STATE - DIVISION OF HISTORICAL RESOURCES

After the ROW has been selected, PEF shall conduct a survey of sensitive cultural resource areas, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the certified corridor. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If practicable, sites considered to be eligible for the National Register shall be avoided during construction of the transmission line and access roads, and subsequently during maintenance of the ROWs. If avoidance by the proposed ROW of any discovered sites is not practicable, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate. If historical or archaeological artifacts are discovered at any time within the project site, PEF shall stop work immediately and shall notify the DEP Southwest District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073, and PEF shall consult with DHR to determine appropriate action.

[Sections 267.061 and 403.531, F.S.]

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

XL. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

A. The proposed transmission lines will be co-located within existing rights-of-way (ROWS) and other impacted areas wherever feasible.

B. Progress Energy Florida (PEF) shall provide to SWFWMD a copy of all postcertification filings for finalization of the ROW locations and the construction and operation of the transmission line facilities, including any access roads or surface water management system facilities, for those portions located within the SWFWMD.

C. A copy of the aerial photographs provided to DEP to show the boundaries of the acquired ROW within the SWFWMD will also be provided to SWFWMD. SWFWMD shall have an opportunity to review the photographs and notify DEP of any apparent conflicts with the requirements of the Conditions of Certification.

D. PEF shall provide reasonable assurance that the construction, operation and maintenance of non-exempt surface water management system structures and access roads in support of the proposed transmission line facilities will satisfy the criteria set forth in Rules 40D-4.301 and 40D-4.302, F.A.C., and applicable provisions of Part B, Basis of Review of SWFWMD's Environmental Resource Permitting Information Manual. PEF shall provide sufficient information on a post-certification basis to demonstrate that there is reasonable assurance of compliance with SWFWMD substantive permitting requirements, including avoidance of secondary wetland dredging and/or filling impacts and avoidance of floodplain impacts. Where necessary, equivalent floodplain compensation to achieve no net loss in floodplain storage will be provided.

E. To the extent practicable, access roads, culverts and structures shall be located to avoid conflict with existing or permitted surface water management systems, permitted water withdrawal facilities or agricultural ground and surface water management projects as documented in SWFWMD records.

F. During location of the ROW and design of the transmission line in areas where the transmission line will cross over, on, under, or otherwise use SWFWMD-owned lands, PEF will consult with the SWFWMD with respect to the location of the ROW and the design of the transmission line in such areas with a view to maximizing the compatibility of the transmission line with the purposes for which the land was acquired by SWFWMD to the extent practicable and in compliance with the National Electrical Safety Code and good engineering practices.

G. For transmission line easements that will cross over, on, under, or otherwise use SWFWMD lands, PEF will provide independent appraisals of the land to be included in the transmission line ROW and will provide compensation to SWFWMD in an amount agreed upon by SWFWMD and PEF. For lands acquired for conservation purposes, such amount shall be sufficient to compensate SWFWMD for the fair-market value of the land in addition to the loss of intended use of the land within the transmission line ROW. For lands acquired for other purposes, compensation shall be based upon the highest and best use of the property.

H. Prior to the commencement of any activities associated with the construction of any portion of the transmission line corridor or substation that will cross over, on, under, or otherwise affect SWFWMD lands, PEF shall provide a survey of the transmission line ROW and footprint of the substation. The survey shall be prepared using procedures acceptable to the SWFWMD and signed and sealed by a registered surveyor pursuant to Chapter 472, F.S.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

I. In the event PEF seeks to use SWFWMD lands outside of the transmission line ROW for access during construction of the transmission line and/or for inspection and maintenance after construction, PEF shall submit to the SWFWMD a detailed plan identifying the proposed route, type and number of vehicles to be used and the frequency of such use. All SJ SWFWMD WMD lands outside of the transmission line ROW shall be in accordance with Chapter 40D-9, F.A.C.

[Sections 373.085, 373.089, 373.093, 373.099, 373.414 and 373.416, F.S.; Rules 40D-4.301 and 40D-4.302, F.A.C., District Environmental Resource Permit Manual Part B, Basis of Review Chapter 4;Chapter 40D-9, F.A.C.]

XLI. ST.JOHNS RIVER WATER MANAGEMENT DISTRICT

A. PEF shall provide the St. Johns River Water Management District (SJRWMD) a copy of all post-certification filings finalizing the locations of right-of-ways and substations on or adjacent to District Lands.

B. Prior to the commencement of any activities associated with the construction of any portion of the transmission line corridor or substation that will cross over, on, under, or otherwise affect SJRWMD lands, PEF shall provide a survey of the transmission line ROW and footprint of the substation. The survey shall be prepared using procedures acceptable to the SJRWMD and signed and sealed by a registered surveyor pursuant to Chapter 472, F.S.

C. PEF shall provide an analysis of any affect of the construction or operation of the transmission line corridor and/or substation on SJRWMD lands and shall minimize any adverse affect pursuant to a SJRWMD approved plan.

D. In the event PEF seeks to use SJRWMD lands outside of the transmission line ROW for access during construction of the transmission line and/or for inspection and maintenance after construction, PEF shall submit to the SJRWMD a detailed plan identifying the proposed route, type and number of vehicles to be used and the frequency of such use. All SJRWMD lands outside of the transmission line ROW shall be in accordance with Section 40C-9.360, F.A.C.

[Sections 373.085 and 472, F.S.; Rules 40C-9.360 and 40C-9.380 F.A.C.]

XLII. EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL

A. Development of Regional Impact Secret Promise

PEF will work with the Secret Promise Development of Regional Impact (DRI) to ensure the aesthetics of the transmission line and the ROW are consistent with the development occurring south of CR 470.

B. ROW Survey

PEF shall submit, for informational purposes, to ECFRPC information collected as a result of Condition XXVI.

[Section 380.06, F.S.]

XLIII. WITHLACOOCHEE REGIONAL PLANNING COUNCIL

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

A. Emergency Preparedness

1) PEF will work with affected local governments and other stakeholders to fully integrate new electrical transmission facilities into all emergency management planning processes to maintain consistency with the SRPP's emergency preparedness content.

2) Electrical transmission line facilities will be integrated into overall emergency management and response planning for the proposed nuclear power generation complex, so that the same standard of preparedness applies to all facilities covered by the certification.

[Section 186.505-507, F.S.]

XLIV. TAMPA BAY REGIONAL PLANNING COUNCIL

Where feasible and applicable, PEF will consult with TBRPC to maintain consistency with the Council's strategic regional policy plan for the Tampa Bay region.

[Section 186.507, F.S.]

XLV. HERNANDO COUNTY

A. Final Design Submittal

1. A post-certification submittal of PEF's final design plan including pole locations throughout the entire right-of-way within Hernando County shall be provided to Hernando County showing:

a. All protected trees over 4" dbh to be removed outside the PEF ROW for the transmission line, access road and drainage installation. Protection measure for trees proposed for preservation shall be detailed.

b. Contractor information, including a twenty-four hour, seven-day contact and phone numbers.

c. Show the location of any proposed school or park sites within one-quarter mile of the transmission line location on the final design plan.

d. Proposed locations and dimensions of all access roads.

2. Show as existing site conditions within the PEF ROW on the final design plan the following:

a. The name, location and width of existing or platted street public right-of-way within or contiguous to the right-of-way.

b. Approximate location, size and depth of sewers, water mains and storm drains, and approximate location of power and phone lines; within the right-of-way.

c. Location and size of easements for all the above ground utilities, such as electric power lines, within the right-of-way.

d. Topographic contours on one-foot intervals based on mean sea-level datum.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

B. Existing Infrastructure

PEF, where feasible and practicable, will use existing infrastructure rights of way within Hernando County to provide for aesthetic protection of the corridors from adjacent uses, and to be consistent with the requirements applicable to Public Service Facility overlay zoning in Hernando County.

C. Consultation with the U.S. Army Corp of Engineers (ACOE)

PEF shall confer with ACOE, for portions of the transmission line that are within the Brooksville Turret Gunnery Range prior to construction.

D. Noise

PEF shall comply with Hernando County's noise ordinance.

E. Landscaping

PEF, where feasible and practicable, will retain existing vegetation and practice "best management practices" to be consistent with Hernando County landscaping regulations.

F. Crossing of Hernando County ROW or Other County Property

All lines crossing Hernando County ROW or other county property will be designed for compliance with applicable county standards.

G. Natural Gas Pipelines

PEF will comply with setbacks and all other requirements as stated in the PEF Pipeline Collocation Guideline

[Hernando County Code; Chapters 10, Art. II, Ch. 21, Art. VII]

XLVI. LEVY COUNTY – TRANSMISSION LINES

A. Submittals

Concurrent with submittal to the applicable state agencies, the Applicant will provide copies of the following documents to the County for informational purposes (if not already previously submitted with the Application):

1. documents submitted for review and approval of the ERP;
2. final ERP when approved;
3. documents submitted for approval of plans for proposed clearing and/or burning of transmission line corridors;
4. final approval document, including final plans, for clearing and/or burning submitted in connection with item 3;
5. documents relating to compliance with any condition relating to post-construction reclamation activities, including plans for proper removal and disposal of debris, dismantling of temporary facilities, and erosion control measures including any mulching, reseeding, or resodding;

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

6. final approval document, including final plans, for items referred to in item 5;

7. documents required for development and approval of an avian protection plan, including proposed plan and any other submittals made to Florida Fish and Wildlife Conservation Commission in connection therewith;

8. final approval document, including final plan, for avian protection submitted in connection with item 7.

[Levy County Comprehensive Plan]

B. Noise

Prior to construction of the transmission lines, the Applicant will provide studies or other analysis of potential noise anticipated from construction activities for transmission lines. In addition, the Applicant will provide studies or analysis of potential noise from operation of the transmission lines. Noise levels from construction or operation of the transmission lines shall not exceed the requirements of the provisions of Division 2. Article VIII, Chapter 50, Levy County Code, as the same may be amended.

[Article VIII, Chapter 50, Levy County Code]

C. County Road 40

1. In the event the Applicant proposes any access to CR 40 for access to the transmission line corridor or the Applicant's adjacent property for any purpose, and such access will not concurrently or later act as the heavy haul road (herein "driveway access"), at least thirty (30) days prior to any construction activities related to such driveway access, the Applicant shall provide the following items to the County:

- a) a completed County driveway permit form;
- b) a detailed description of the proposed uses for such driveway access, including but not limited to estimated traffic volume, traffic composition, and proposed weights of loads that will use the driveway access;
- c) engineering and construction plans for such driveway access;
- d) maintenance of traffic plans for maintenance of traffic during construction of such driveway access;
- e) and any other documentation or information required by the County Road Department for its review of the use and construction of the driveway access.

2. Such engineering and construction plans and other information and documentation shall meet requirements of the then-current Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction*, and the requirements of the County Road Department.

3. After review and approval of such engineering and construction and maintenance of traffic plans by the County Road Department and County Engineer, the Applicant may construct the driveway access in accordance with such approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the driveway access, as provided in Levy County Resolution 2007-24.

6. No use of the driveway access for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

7. After final inspection approval, the use of the driveway access shall be limited to the uses contemplated and addressed in the description of the proposed use of the driveway access previously submitted for review.

8. Unless the driveway access is proposed to also act as the heavy haul road, and the provisions for the heavy haul road have been met, the driveway access shall not be used to transport any equipment or other items that exceed the weight capacity of CR 40 as posted or that were not contemplated or addressed in the description of the proposed uses of the driveway access previously submitted for review.

9. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

10. The Applicant shall maintain the driveway access in good condition and shall make any repairs to CR 40 caused by use of such driveway access.

[Sections 50-381 and 50-715, Levy County Code; Transportation Element of Levy County Comprehensive Plan; Levy County Resolution 2007-24.]

D. Heavy Haul Road

1. At least sixty (60) days prior to any activities in the transmission line corridor, the power plant site, or any of the Applicant's adjacent property, that may utilize the heavy haul road, or any other use of the heavy haul road across CR 40, the Applicant shall provide the following to the County for its review and approval:

- a) a completed County driveway permit form;
- b) a detailed description of the proposed uses for such heavy haul road across CR 40 and adjacent right-of-way, including but not limited to estimated traffic volume, traffic composition, and proposed weights of loads that will use the heavy haul road;
- c) engineering and construction plans providing for the design and construction of the heavy haul road within County right-of-way;
- d) engineering and construction plans depicting any structural improvements that may be required to prevent and prohibit degradation of the structural integrity of CR 40 and the adjacent right-of-way as a result of the Applicant's proposed use of the heavy haul road;
- e) engineering and construction plans depicting the proposed location, design, and construction of the temporary connection to CR 40 Applicant proposes to use for the heavy haul road;

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

f) maintenance of traffic plans for use during construction of both the heavy haul road and any improvements to CR 40 and adjacent right-of-way required to maintain structural integrity of CR 40;

g) maintenance of traffic plans for use during the Applicant's proposed use of the heavy haul road for construction of the transmission lines and the power plant site; and

h) any other documentation or information required by the County Road Department, Development Department, or County Engineer for review of the Applicant's use and construction of the heavy haul road and any related improvements to CR 40.

2. Such engineering and construction plans and other information and documentation shall meet requirements of the then-current Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction*, and the requirements of the County Road Department, Development Department and County Engineer.

3. After review and approval of the engineering and construction plans and maintenance of traffic plans by the County through its Road Department, Development Department, County Engineer, and the Levy County Sheriff (only maintenance of traffic plans need to be reviewed by Sheriff), the Applicant may construct the heavy haul road, any structural improvements required to maintain the integrity of CR 40 and the adjacent right-of-way, and improvements constituting the connection of the heavy haul road to CR 40, each to be in accordance with the approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the heavy haul road, as provided in Levy County Resolution 2007-24.

6. No use of the heavy haul road for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

7. After final inspection approval, the use of the heavy haul road shall be limited to the uses contemplated and addressed in the engineering plans submitted for prior review.

8. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

9. Prior to use of the heavy haul road, the Applicant also shall provide a schedule for the loads that Applicant proposes to transport across CR 40 using the heavy haul road that will exceed the weight capacity of CR 40 as posted.

10. The Applicant may amend such schedule upon 48 hours notice to the County of any such amendment.

11. Throughout the Applicant's use of the heavy haul road, the Applicant shall continuously maintain that portion of CR 40 traversed by the heavy haul road to meet rolling

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

straight edge requirements contained in the most current edition of Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction*.

12. The County shall have the ability to inspect CR 40 at any time for compliance with this maintenance provision.

13. The Applicant shall pay all of the County's costs for staff time and other costs incurred in connection with any such inspections upon request for payment by the County.

14. In the event that the rolling straight edge requirements are not being met on that portion of CR 40 traversed by the heavy haul road at any time, the County shall have the ability to suspend the Applicant's use of the heavy haul road until sufficient improvements are made to maintain the rolling straight edge requirements described herein.

15. After the completion of the use of the heavy haul road for construction or maintenance activities related to the transmission lines and the power plant site, the Applicant shall make any repairs to CR 40 and the adjacent right-of-way in the area of the heavy haul road that have been caused by the Applicant's use of CR 40 and the adjacent right-of-way.

NOTE: As an alternative to compliance with this Condition XXXVI.D., the Applicant may enter into a development agreement with the County to provide for the provision of plans, construction and operation of the heavy haul road. Any such agreement shall be entered into and fully executed by both the Applicant and the County prior to any use of the heavy haul road.

[Sections 50-381 and 50-715, Levy County Code; Transportation Element of Levy County Comprehensive Plan; Levy County Resolution 2007-24.]

XLVII. HILLSBOROUGH COUNTY

A. Final Design Submittal

A post-certification submittal of PEF's final design plan including pole locations throughout the entire right-of-way within Hillsborough County shall be provided to Hillsborough County showing:

1. PEF-owned right-of-way, existing transmission and distribution easements and road rights-of-way and the location of any facilities on these existing rights-of-way, whether transmission structures, above-ground facilities, underground utilities, sewers, water mains, storm drains, or telephone lines.

2. Construction time-tables, phasing, and construction traffic to be generated by the transmission line construction.

3. All flood zone and floodway delineations along the route of the transmission line and, where applicable and practicable, the flood plain management plan.

4. The location of any proposed school or park sites within one-quarter mile of the transmission line location.

5. Location of fire hydrants and exterior fire suppression systems supplied by potable and non-potable water sources.

6. Location, size, and type of all proposed stormwater management facilities.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

B. Large Facilities Ordinance

1. Transmission poles that exceed seventy-five (75) feet in height when installed or poles that are greater than twenty-four (24) inches in diameter at the ground line are subject to the provisions of the County's Large Facilities Ordinance; therefore, since PEF's transmission poles are expected to range between 80 feet to 145 feet in height and 6 feet to 9 feet in diameter, PEF is required to adhere to the substantive provisions of said ordinance.

2. In order to keep the residents of the County informed of the status of the transmission line project within the County and to address the concerns of the various citizens, groups, and organizations affected by the construction of the transmission line, PEF has agreed to work with the County and conduct regular public meetings during the design and construction phases of the project.

C. Planning and Growth Management

1. PEF must comply with the requirements of the County Tree Protection should additional property be required for the transmission line.

2. PEF shall comply with the County's Land Development Code in the preservation of any Grand Oaks located on property where the transmission line will be placed. Failure to demonstrate the preservation of a Grand Oak(s) shall require replacement as specified in Section 4.01.06.A.7 of the Land Development Code.

3. PEF shall ensure that any newly-disturbed areas in the selected route for the transmission line shall be re-vegetated in accordance with the applicable provisions of the County's Land Development Code; therefore, PEF shall submit its right-of-way specific vegetation management plan to the County, if applicable.

4. During the construction of the proposed transmission line, all construction truck traffic going to the construction site shall follow the County's Truck Route Plan. A truck may leave a designated truck route and drive on a County road that is restricted to truck traffic, only if the truck can reach its destination without crossing another truck route. Truck routes can be found on the Truck Route Plan Map and in County Resolution R05-022. Copies of both are available on the 20th floor of the County Center at 601 East Kennedy Blvd., Tampa, FL 33601.

5. Construction vehicles shall adhere to weight requirements provided in the applicable County ordinance.

6. PEF will comply with all applicable non-procedural conditions of the County's Utility Accommodation Guide and Rights-of-Way Use Procedures Manual related to maintenance of traffic during construction.

7. PEF shall work with the communities in the County to consider techniques that can be used to maximize compatibility with adjacent uses, including both existing and planned development, such as screening and buffering.

8. PEF shall comply with the County's noise restrictions during construction.

9. PEF shall work with the County in providing periodic updates as to the construction progress as well as identifying the possible collocation of trails and other compatible opportunities within the transmission line-right-of-way.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

10. PEF, during the design of the transmission line, will consult with the County and will make best efforts to minimize conflicts with the County's existing infrastructure and utilities, proposed and future utilities and infrastructure work, capital improvement projects, etc., to the extent practicable and in compliance with National Electric Safety Code and other regulatory requirements.

11. PEF shall contact the Greater Tampa Utilities Group (GTUG) as well as individual private and public utilities located within the County's right-of-way and coordinate the subject permit application issues as well as the design and construction of the proposed transmission lines with such entities. PEF shall provide the County's Right-of-Way Management office with dates of attendance to the GTUG meetings and coordination efforts with GTUG.

12. Upon the determination of the final route for the transmission line, PEF shall contact Sunshine One Call and obtain a listing (design and construction tickets) of all of the existing underground utilities within the route. PEF shall provide the County with a copy of the utility companies with facilities located within the County's right-of-way along the transmission route. PEF must also follow safe digging practices and the Underground Facility Damage Prevention and Safety Act, Chapter 556, Florida Statutes.

13. During post-certification, PEF shall submit to the County the names of public roadways that it plans to use for the transportation of the transmission poles, the type of carriers and wheel pressures that will be utilized, and the times of day for the transport of said transmission poles. PEF will be subject to safety and permitting requirements of Chapter 316, Florida Statutes.

14. After certification of the corridor and prior to the commencement of construction, if any construction will be within fifteen (15) feet of the edge of pavement or if other construction activities require temporary lane closures, PEF shall contact the County's Right-of-Way Management office to coordinate the work, and, if applicable, PEF shall obtain a Temporary Traffic Control Permit (TTC) whenever PEF plans to impede traffic in any manner whatsoever and/or when PEF is working within 15 feet of the edge of the pavement. PEF may also need to submit a signed, sealed, site specific Maintenance of Traffic (MOT) plan to the County for review and approval. Additionally, PEF shall provide the County with a MOT plan for the construction of entrances and exits. This process shall also apply to all lane or road closures requests from PEF. Notwithstanding the foregoing, PEF shall refrain from closing any lanes or roads in the traffic patterns of schools (while in session), hospitals, emergency facilities, and fire stations.

15. PEF will locate the transmission line poles longitudinally along the right-of-way outside of the ultimate configuration for all currently designed and acquired future traffic infrastructure projects to the extent practicable.

16. In the event that PEF needs to acquire property from the County in order to complete the corridor for the Polk-Hillsborough-Pinellas transmission line, PEF shall provide legal descriptions and sketches of the property to the County as a post-certification submittal.

17. The County reserves the right to review this corridor to ensure that there are no issues such as corrosion of existing (ion) water transmission lines caused by electrical currents from the transmission lines.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

[Hillsborough County; Ordinance 3-29, Section 4.01, L.D.C.]

XLVIII. SUMTER COUNTY

- A. PEF shall use existing infrastructure right-of-ways wherever possible and feasible.
- B. PEF shall provide for aesthetic protection of adjacent uses from the corridors. The aesthetic protection may be accomplished through screening, buffering, and fencing of the corridors.
- C. PEF shall consider placing transmission lines underground, where feasible, and/or make maximum use of monopole towers for overhead lines.
- D. PEF shall minimize construction impacts related to type of equipment used, clearing and grubbing, dust control, soil stabilization, erosion control, drainage control, noise, and traffic disruption.
- E. Where feasible, PEF should retain existing vegetation within the corridor.
- F. PEF shall obtain appropriate permits from Sumter County for all applicable County right-of-way crossings.
- G. PEF shall coordinate construction traffic with Sumter County Public Works Division to minimize traffic disruption and to implement appropriate maintenance of traffic procedures.
- H. PEF shall provide a post-certification submittal of the final design plan for the new transmission lines throughout Sumter County to the Sumter County Division of Planning & Development.
- I. PEF shall commit to allow for the co-location of public utilities, pedestrian/trail facilities, or other public uses within the transmission line corridors, to the extent compatible and feasible based on engineering and design constraints.
- J. PEF shall coordinate final transmission line plans with the County and Lake-Sumter Metropolitan Planning Organization to assure that the new transmission line locations will not hinder future transportation planning for the county.
- K. If the proposed Central Florida Substation is located within unincorporated Sumter County, then PEF is required to obtain Special Use approval from the Sumter County Board of County Commissioners.
- L. PEF shall coordinate with Sumter County Emergency Management for the management of these major transmission lines during times of emergency declaration.

[Sumter County Ordinance]

XLIX. CITRUS COUNTY

- A. Upon final selection of the site for, and design of any proposed, Citrus Substation in Citrus County, PEF is required to submit to Citrus County information concerning proposed Citrus Substations necessary to demonstrate compliance with Citrus County's LDC, Chapter Two, Level One Review criteria and the substantive requirements of Section 4671, Transportation, Communication, and Utility Facility Standards.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

B. The County shall review the information submitted by the Applicant in accordance with the procedures for post-certification reviews under any final certification of the PEF Levy Project. The County may require such additional information for the applicant that is necessary for the County to conduct its review of this information and the proposed substation site and design under these provisions of the County LDC.

C. All line crossing Citrus County Right of Way or other County property will be designed for compliance with applicable county standards.

D. All earthwork and land clearing shall comply with The Florida Stormwater, Erosion and Sedimentation Control Inspector's manual.

E. All work conducted will be required to comply with the County's Noise limitation regulations as to volume and hours of operation.

[Citrus County Land Development Code; Chapter 2; Citrus County Code Noise Ordinance.]

L. HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION

A. Noise

Pursuant to Chapter 1-10, Rules of the EPC, Noise Rule "Exceptions" exempts construction activities occurring between the hours of 7 a.m. and 6 p.m. Monday through Friday, 8 a.m. and 6 p.m. Saturday, and 10 a.m. and 6 p.m. Sunday if reasonable precautions are taken to abate the noise from those activities. Reasonable precautions shall include but not be limited to noise abatement measures such as enclosure of the noise source, use of acoustical blankets, and change in work practice. Construction activities occurring at all other times shall be subject to the standards in the EPC noise Rule.

B. Particulate Matter (Fugitive Dust)

The project construction activities shall incorporate reasonable precautions to control unconfined emissions of particulate matter (dust), including, but not limited to, the methods, practices and procedures contained in Chapter 62-296.320(4)(c), Florida Administrative Code (F.A.C.).

1. These provisions are applicable to any activity, including vehicular movement; transportation of materials; construction, land alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling.

2. Reasonable precautions deemed necessary for this project include, but are not limited to, the following:

- a) Speed limit of 10 miles per hour or less shall be enforced on vehicles travelling over exposed soils and other un-stabilized materials.
- b) Curtail operations during high wind conditions
- c) Application of water or other dust suppressants to control emissions from such activities as land clearing, transportation of materials, grading roads, spreading of excess soils on right-of-ways, and construction and site development activities.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

- d) Application of water or other dust suppressants to unpaved roads, open stock piles, soils spread on right-of-ways, and other similar activities.
- e) Seeding and mulching access road surfaces

C. Open Burning

Pursuant to Chapter 1-4, Rules of the Hillsborough County Environmental Protection Commission (EPC), all open burning within Hillsborough County is prohibited unless approved or permitted by EPC.

1. The EPC issues temporary authorizations for all land clearing operations prior to commercial development, including the initial clearing of land for agricultural or construction purposes. Under these temporary authorizations, applicants are permitted to burn for up to six months at the same location. Authorizations are issued after the submission of an application, along with a fee payable to the EPC.

2. Open burning that is expected to last for more than six months at the same location will require an air pollution permit, and must comply with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules that regulate open burning with a permanent air curtain incinerator. In Hillsborough County, EPC has been delegated authority to permit and enforce these State regulations. All applications, along with permit fees should be submitted to EPC.

D. Asbestos

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Asbestos 40 CFR, Part 61, Subpart M promulgated by the U.S. EPA - Enforced by the State of Florida Department of Environmental Protection and delegated to the Environmental Protection Commission (EPC) within Hillsborough County applies to regulated asbestos renovation and demolition projects.

1. Where demolition activities occur, asbestos demolition notification is required for all commercial facilities and for demolition projects involving residential structures with more than four dwelling units, residences that have been used as a business in the past, or if the demolition of more than one residential structure is planned.

2. Any regulated removal of asbestos containing materials from structures to be renovated or demolished requires notification. Notification and the appropriate fee must be submitted to the EPC at least ten working days prior to the regulated renovation or demolition activity.

3. Prior to the start of any demolition or renovation activities, a thorough asbestos inspection must be performed. According to Chapter 469.003 Florida Statute, asbestos survey inspections must be performed by a licensed asbestos consultant. Phase I Environmental Assessment reports may not be used in lieu of a thorough asbestos survey inspection conducted by a trained and licensed asbestos consultant. A copy of the asbestos survey report should be maintained on site at all times. For demolition activities, include a copy of the asbestos survey report with the notification and fee.

4. Asbestos containing waste materials must be disposed of per local, state and federal regulation.

SECTION C. TRANSMISSION LINE SPECIFIC CONDITIONS

D. Waste Management

PEF will ensure that all historic landfills within the boundaries of the project in Hillsborough County are properly managed. Development or impact to areas filled with solid wastes or areas otherwise impacted by solid waste disposal in Hillsborough County will require a Director's Authorization from the EPC.

[Rules of the Hillsborough County Environmental Protection Commission (EPC)]

LI. PINELLAS COUNTY

A. Brooker Creek Preserve

PEF will coordinate efforts with Pinellas County's Environmental Management Office to ensure that the management strategies of the Brooker Creek Management Plan are adhered to where applicable and feasible. The Management plan is located at <http://www.pinellascounty.org/Environment/pagesHTML/BCPmngmtWeb/bcpm500.html>

B. Coordination

Coordination with Pinellas County staff, inclusive of Environmental Management staff as well as Building and Development Review staff, is required prior to any final decisions on a specific corridor alignment and development of a specific plan for site development and maintenance.

C. Site Plan

Submittal of a site plan, or other agreed-upon data, is requested to be provided to Pinellas County Building and Development Review Services prior to initiation of any site disturbance activity.

D. Safety and Protection

To ensure public safety and protection of natural resources within Pinellas County, the applicable regulatory sections of the Pinellas County Land Development Code shall be adhered to during and after site construction.

[Pinellas County Board Brooker Creek Preserve Management Plan; Pinellas County Comprehensive Plan; Pinellas County Land Development Code.]

LII. CITY OF TAMPA (Reserved)

LIII. MARION COUNTY (Reserved)

Attachment 1

Standard Manatee Conditions for In-Water Work (revision 2005)

Attachment 1

STANDARD MANATEE CONDITIONS FOR IN WATER WORKS

2005

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) for south Florida.
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

FWC A M E S S

ASAP S D

624-B Pinellas Street
Clearwater, FL 33756
Phone: (727) 443-4878
Fax: (727) 442-7573

V S

104615 Overseas Highway
Key Largo, FL 33037
Phone: (305) 451-5133
Fax: (305) 451-5163

W I

P. O. Box 1635
Tallahassee, FL 32302
Phone: (850) 224-6414
Fax: (850) 561-3943
www.wildernessgraphics.com

S A

2912 Orange Avenue
Ft. Pierce, FL 34947
Phone: (800) 432-0331 or
(772) 461-0665
Fax: (772) 461-0669

C C S D

1311 Del Prado Boulevard
Cape Coral, FL 33990
Phone: (239) 772-9992
Fax: (239) 772-3848

N C S

1739 28th Street N.
St. Petersburg, FL 33713
Phone: (727) 323-7897
Fax: (727) 323-1897
www.NewCitySigns.com

M S S C

1095 Fifth Avenue, North
P. O. Box 1765
Naples, FL 33939-1765
Phone: (800) 329-5366 or
(239) 262-4639
Fax: (239) 262-4645
www.municipalsigns.com

R H

T
309 Angle Road
Ft. Pierce, FL 34947
Phone: (772) 489-8772
or (800) 489-8758 (FL only)
Fax: (772) 489-8757

CAUTION: MANATEE HABITAT

**All project vessels
IDLE SPEED / NO WAKE**

**When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN**

Report any collision or injury to:
1-888-404-FWCC (1-888-404-3922)

Florida Fish and Wildlife Conservation Commissio

Attachment 2
Map of Certified Corridors
(To be attached upon Certification)

Appendix A

**NPDES permit No. FL0633275-001-IW1S/NP
(To be attached upon Final Issuance)**

Appendix B

**Title V Air Operation Permit xxxxxxxx-xxx-AV
(To be attached upon Final Issuance)**

Appendix C
Air Construction Permit PSD-FL-403
(To be attached upon Final Issuance)

Appendix D

Air Construction Permit (BART) 0170004-017-AC

(To be attached upon Final Issuance)

Appendix E
ERP Permit 38-272432-002-ES
(To be attached upon Final Issuance)

Appendix F
Levy County SE Approval

September 3, 2008

Progress Energy Service Company, LLC
Attn: R. Alexander Glenn and Suzanne Ennis
299 First Avenue North
Suite PEF - 151
St. Petersburg, Florida 33701

RE: Special Exception No. 2-08

To Whom It May Concern,

The Levy County Board of County Commissioners met in regular session on Tuesday, September 2, 2008 and reviewed your application for local approval of a "Special Exception Use Permit" that would allow the construction and operation of two nuclear reactor powered electrical generating plants that would generate a total of 3,000 megawatts of electricity (i.e. 3 billion watts). The application and site plan includes all the necessary support services and structures required for the construction and operation of such facility including, but not limited to: offices, training facilities; rail lines; storage areas; warehouses; first aid facilities; staging areas; parking lots; helipad; electrical transmission facilities, including switch yard; cooling towers; pumping stations; waste water treatment plant; ground water well fields; potable water treatment plant; retention basins; shooting range; emergency notification equipment; fencing and security facilities; and temporary uses necessary for the construction of such power plants, including but not limited to: concrete and/or asphalt batch plants. Said parcel is approximately 2 miles North of the Town of Inglis, ½ mile East of 19/98 and located in all or portions of, Sections 7, 17, 18, 19, 20, 29 and 30, all lying in Township 16 South, Range 17 East, Levy County, Florida. Total Project Area: 3,105 acres more or less (based on survey). Current Land Use Designation: Public Use. Current Zoning District: F/RR.

It was the decision of the board to approve the special exception as requested with conditions.

If I can be of any further assistance, please feel free to contact me.

Sincerely,

Grace Benton
Zoning Codes Specialist

Board of County Commissioners Conditions for SE 2-08

1. The Special Exception Use Permit is for the construction and operation of not more than two (2) nuclear reactor powered electrical generating plants and associated support structures, accessory structures and uses identified and shown on the Site Plan Exhibit B.
2. No permanent entrance to the project site shall be constructed from Highway 40 for the purpose of operational phase work force access. This is not to preclude a roadway to provide access for the construction and maintenance of the transmission lines and the water supply lines used to convey cooling water pumped from the Cross Florida Barge Canal or return lines pumping water to the Crystal River Discharge Canal, emergency access or similar incidental access uses. This condition does not preclude the temporary use of the heavy haul road for the delivery of heavy equipment or materials for construction of the power plant (s), transmission lines, substation or water supply and return lines.
3. Construction activities within the Special Exception area, including transmission and pipeline construction, shall not adversely impact adjacent properties not owned by the applicant. Storm water run-off, and excessive dust, smoke, noise, glare and vibrations shall be considered adverse impacts.
4. Operational characteristics, such as noise, dust, vibrations and traffic shall at all times comply with all local, state and federal ordinances, laws and regulations. The applicant, owner or their assigns, shall promptly provide proof of compliance with any applicable ordinances, laws, or regulations relating to these operational characteristics in the event the County receives a complaint.
5. All wetland mitigation resulting from wetland impacts to properties in Levy County shall be made to property located in Levy County. The applicant, shall, whenever possible, conduct all wetland mitigation within the boundary of the site (3,105 acres).
6. Final development approval by the County shall be contingent upon the applicant obtaining all development approvals and permits from all applicable state and federal agencies that are necessary for the particular development activity to be approved by the County, with the exception of the Federal Combined Construction Operating License.
7. All development shall be contained within the designated development areas as shown on Exhibit A, with the exception of fencing, industrial rail spur, temporary uses incidental to the construction of the facility, transmission lines and pipelines, berms, guard houses,

water wells, monitoring wells, and internal roads necessary to provide internal access to these listed structures shall be contained within the designated development areas as shown on Exhibit A and shall be setback a minimum of 1,000 feet from any property boundary where abutting properties are not under the same ownership as the subject property.

8. Note 1 written thereon Map Exhibit A, and Notes 1 through 16 written thereon Map Exhibit B of the supporting documents submitted with the application shall be considered conditions of the approval of SE 2-08.
9. All conditions set forth by the Board of County Commissioners shall be binding on the applicant, owner, or their assigns.

Appendix II–1

Public Service Commission Determination of Need

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by <u>Progress Energy Florida, Inc.</u>	DOCKET NO. 080148-EI ORDER NO. PSC-08-0518-FOF-EI ISSUED: August 12, 2008
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The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman
LISA POLAK EDGAR
KATRINA J. McMURRIAN
NANCY ARGENZIANO
NATHAN A. SKOP

APPEARANCES:

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On behalf of Progress Energy Florida, Inc. (PEF).

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On behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs (PCS PHOSPHATE or PCS).

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On behalf of Southern Alliance for Clean Energy (SACE).

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On behalf of the Citizens of the State of Florida (OPC).

KATHERINE E. FLEMING, CAROLINE KLANCKE, and KEINO YOUNG, ESQUIRES, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850

On behalf of the Florida Public Service Commission (Staff).

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

FINAL ORDER GRANTING PETITION FOR DETERMINATION OF NEED
FOR PROPOSED NUCLEAR POWER PLANTS

BY THE COMMISSION:

BACKGROUND

On March 11, 2008, Progress Energy Florida, Inc. (PEF) filed a petition for a determination of need for the proposed Levy Nuclear Units 1 and 2 (Levy Units 1 and 2), pursuant to Section 403.519, Florida Statutes (F.S.), and Rule 25-22.080, Florida Administrative Code (F.A.C.). PEF's proposal consists of two Westinghouse AP1000 nuclear-fueled generating units with in-service dates of 2016 and 2017. The Westinghouse AP1000 design has a nominal output of approximately 1,100 mega-watts (MW) per unit. The proposed unit additions will contribute 2,200 MW to PEF's system.

Intervention was granted to the following parties: (1) Office of Public Counsel (OPC),¹ (2) White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs (PCS),² and (3) Southern Alliance for Clean Energy (SACE).³

Public Testimony

In addition to the pre-filed testimony submitted by the applicants, we received mailed comments and heard live testimony from public witnesses. Thirty-five citizens testified at a service hearing in Crystal River, Florida, on April 23, 2008. In addition, four citizens provided public testimony at the formal administrative hearing in Tallahassee on May 21, 2008. A number of topics of interest voiced in the public testimony portion of the hearing are addressed elsewhere in this order. These topics include system reliability and integrity; fuel diversity; reasonable costs for electricity; environmental compliance costs; conservation, demand side management (DSM), and renewables; and cost-effectiveness.

Other areas of interest that were discussed during the public testimony phase of the hearing focused on subjects beyond the scope of this proceeding established by Section 403.519, F.S., or this Commission's jurisdiction under its authorizing statutes. The concerns voiced by the public about the environment,⁴ safety,⁵ economic development,⁶ and the routing of the associated transmission lines⁷ were all outside the Commission's jurisdiction.

¹ Order No. PSC-08-0174-PCO-EI, issued March 21, 2008.

² Order No. PSC-08-0245-PCO-EI, issued April 18, 2008.

³ Order No. PSC-08-0253-PCO-EI, issued April 23, 2008.

⁴ Witnesses Hopkins, Harvey, Brinkman, Jones, Leven, Eno, Berger, Locke, Eppes, Price, Keith, Peters, Casey, and Elias.

⁵ Witnesses Eppes, Price, Keith, Peters, and Jones.

⁶ Witnesses Douglas, McQueen, King, Cannon, Welker, Hollins, Kirk, and Diamond.

⁷ Witnesses Harvey, Eno, Vibbert, Berger, Renfro, Masaoy, Pickering, Peterson, Cook, Simpson, Lott, and Jones.

Section 403.519, F.S., authorizes us to examine PEF's projected costs for environmental controls necessary to meet current state and federal environmental requirements. While our ability to address all issues raised in the public testimony is limited by the scope of Section 403.519, F.S., and other statutes which establish our jurisdiction, these other concerns may be relevant in the certification proceedings before the Department of Environmental Protection (DEP), the Division of Administrative Hearings, and the Governor and Cabinet, sitting as the Siting Board.

A formal administrative hearing was held on May 21-22, 2008. On June 6, 2008, post-hearing briefs were filed by PEF and PCS. On June 10, 2008, SACE filed its post-hearing brief.⁸ A post-hearing brief was not filed by OPC.

Factors for Consideration

Pursuant to Section 403.519(4), F.S., this Commission is the sole forum for the determination of need for new nuclear power plants. In making our determination, we must take into account the need for electric system reliability and integrity, the need for fuel diversity and supply reliability, the need for base-load generating capacity, the need for adequate electricity at a reasonable cost, and whether the proposed plant is the most cost-effective alternative available. We must also expressly consider whether renewable energy sources or conservation measures taken by or reasonably available to the utility might mitigate the need for the proposed plant.

This Order reflects our decision and serves as our report under the Power Plant Siting Act, as required by Section 403.507(4)(a), F.S.

FINDINGS

Need for Electric System Reliability and Integrity

There is a need for Levy Units 1 and 2, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519(4), F.S.

PEF argues that there is a need for Levy Units 1 and 2 because there is an expected growth of over 20 percent in the demand for electricity in its service area over the next ten years. Furthermore, PEF contends that Levy Units 1 and 2 are necessary to meet its reliability needs in the 2016 to 2019 time period and beyond. PEF also asserts that without Levy Units 1 and 2, it will not be able to meet its 20 percent minimum reserve margin planning criterion beginning in 2016. Moreover, PEF asserts that Levy Units 1 and 2 will provide customers with at least \$930 million in annual fuel savings and even greater economic benefits. Finally, PEF argues that the economic benefits, in conjunction with the customer savings from constructing back-to-back nuclear units, overshadow the mere fact that there will be additional reserves for several years after the second unit is added. Thus, PEF contends that the economic benefits and savings justify the decision to add Levy Units 1 and 2 in 2016 and 2017.

⁸ None of the parties objected to SACE filing its brief on June 10, 2008; accordingly, staff has addressed SACE's arguments in this recommendation.

OPC did not file a brief with respect to this issue. PCS argues that PEF has not demonstrated a need for the addition of 2,200 MWs of nuclear generation by 2017. PCS further asserts that the addition of Levy Unit 1 in 2016 will create a capacity reserve margin of 25.3 percent and the addition of Levy Unit 2 in 2017 will create a reserve margin of 33 percent, which is above the utility's 20 percent reserve planning target. Thus, PCS contends that all of the output of Levy Unit 2 would be excess capacity. Finally, PCS argues that a determination of need based on this criterion can only be justified if PEF enters into a joint ownership agreement with a utility partner, or if this Commission imputes such an arrangement for the purposes of rate recovery.

SACE contends that the testimony indicates that there is not a clear need based on reliability or integrity in PEF's network for the capacity from either of the Levy Units in 2016. As such, SACE argues that the need for Levy Units 1 and 2 has not been demonstrated in this case.

We reviewed PEF's forecast assumptions, regression models, and the projected system peak demands and find that they are appropriate for use in this docket. The forecast assumptions were drawn from independent sources, which we have relied upon in prior cases. The regression models used to calculate the projected peak demands conform to accepted economic and statistical practices. Finally, although slower customer growth could reduce peak demand, the projected peak demands produced by the models used by PEF appear to be a reasonable extension of historical trends. Additionally, witness Crisp testified that PEF's forecast accounted for recent trends of decreasing population growth. No party took issue with PEF's load forecast.

PEF's forecast indicates that by the summer of 2016, system firm load is projected to grow to 10,961 MW. This projection indicates a capacity need of 509 MW in order to adhere to PEF's minimum reserve margin criteria of 20 percent. The table below indicates that the addition of the 1,092 MW associated with Levy Unit 1 will satisfy PEF's minimum reserve margin requirement until 2019. The table below also indicates that the addition of Levy Unit 2 in 2017 is projected to cause PEF's reserve margin to increase to 33 percent. Witness Crisp testified that following the addition of Levy Units 1 and 2 PEF would again fall below the 20 percent reserve margin in about 2023.

	PEF		
	w/o Levy 1 and 2	w/ Levy 1	w/ Levy 1 and 2
2015	23.0	23.0	23.0
2016	15.4	25.3	25.3
2017	13.4	23.2	33.0
2018	11.5	21.2	30.8
2019	9.7	19.1	28.6
2020	7.9	17.2	26.5
2021	6.2	15.4	24.6

Witness Crisp testified that, faced with a need for additional resources within this short period of time (2016-2019), moving forward with Levy Unit 2 in the summer of 2017 is certainly reasonable. He further testified that proceeding with both Levy Units 1 and 2 at this time is

necessary to reasonably meet customer reliability needs in the time period from 2016 to 2019 and beyond. Additionally, Witness Crisp asserted that substantial cost savings are expected if Levy Unit 2 is constructed within 12 to 18 months of Levy Unit 1. The results of these savings are discussed in greater detail further in the order.

PEF contends that additional capacity, above the 20 percent reserve margin may be necessary due to the uncertainty regarding capacity accounted for in planning. For example, witness Crisp testified that more than 250 MW of renewable generation may not provide the expected capacity when that capacity is needed. Witness Crisp also testified that there are ongoing discussions regarding the potential impacts of pending carbon legislation on the viability of Crystal River Units 1 and 2, which currently provide more than 850 MW of summer capacity. The total capacity of the discussed renewable contracts and Crystal River Units 1 and 2 is equal to the total capacity of Levy Unit 2 (1,100 MW).

The table above also illustrates that if PEF were to return to the minimum 15 percent reserve margin criteria, which it employed prior to 2004, the need for Levy Unit 1 would only be delayed one year. Although a minimum reserve margin of 15 percent would reduce reliability, it is paramount that, in an era of rising rates, utilities explore all options available to mitigate price increases, including modifying current planning criterion. Witness Crisp testified that a 15 percent reserve margin would lead to a scenario in which a majority of the reserves would be from DSM, energy efficiency, and load control components. Witness Crisp further testified that in the past, PEF has proven that having an excessive amount of direct load control and DSM products in the reserve margin creates a non-reliable system.

Witness Crisp testified that PEF does not have a written policy with regard to what percentage of its reserve margin is load management/interruptible load and how much is generation. However, witness Crisp testified that PEF has an operational philosophy, which was developed when PEF became so dependent on DSM, to ensure the reliable operation of the fleet. He further testified that when PEF had a forced outage event and leaned heavily on DSM, customers began to bail out of the program. PEF realized at that point that a certain level of physical concrete and steel reserves were needed to handle forced outages. Witness Crisp testified that DSM was close to 100 percent of PEF's reserve margin at the time of these events.

Our analysis indicates that supply side generation currently provides 60 percent of PEF's summer reserve margin capacity and 40 percent of PEF's winter reserve margin. In 2018, the year after the addition of Levy Units 1 and 2, these values will increase to 75 and 60 percent, respectively. While an excess of supply side generation will improve reliability, it can also burden ratepayers with potentially unnecessary expenses.

Witness Lyash testified that joint ownership could smooth out the "lumpiness" of the large units when they come on line. He also testified that joint ownership would help in spreading some of the capital risk to help mitigate some of the projects price impact on PEF's customers. The economic impacts of joint ownership are discussed further in this order.

In conclusion, PEF has demonstrated a capacity need by 2016 in order to maintain system reliability and integrity based on a 20 percent reserve margin criteria. Therefore, the addition of Levy Units 1 and 2 is projected to satisfy PEF's capacity needs through 2023.

Need for Fuel Diversity

There is a need for Levy Units 1 and 2, taking in account the need for fuel diversity, as this criterion is used in Section 403.519(4), F.S.

PEF argues that Levy Units 1 and 2 are needed to improve PEF's fuel diversity and will diversify PEF's fuel portfolio. PEF further asserts that if Levy Units 1 and 2 are not added, the nuclear generation on PEF's system will only be 12 percent in 2018. PEF suggests that the addition of Levy Units 1 and 2 will increase the percentage of total nuclear generation on PEF's system, which will give PEF's customers a more diversified, price-stable fuel portfolio. PEF further suggests that without Levy Units 1 and 2, PEF will rely on more volatile-priced fossil fuels for 85 percent of its energy generation. Moreover, gas and oil will contribute over 60 percent of the total energy generated including some around-the-clock base-load energy generation.

OPC did not file a brief with respect to this issue. PCS does not contest the fuel diversity benefits of the Levy Units. SACE argues that there is not a need for Levy Units 1 and 2 taking into account the need for fuel diversity. Furthermore, SACE argues that the serious uncertainty in capital costs and in current market conditions or regulatory requirements may not, as a rule, be mitigated by purported benefits to fuel diversity.

We have considered the need for fuel diversity in our evaluation of utility generation expansion plans as part of our annual Ten-Year Site Plan review process. In 2006, the Florida Legislature amended Section 403.519, F.S., to require us to specifically consider the need for fuel diversity on a utility's system when evaluating a petition for need. Additionally, Section 403.519(4)(b), F.S., directs us to take into account not only the need for fuel diversity, but also the reduction of Florida's dependence on natural gas and fuel oil.

Witness Weintraub testified that fuel diversity is important because it improves overall system reliability and reduces the exposure the customer has to the price behavior of any one fuel type. In 2006, natural gas accounted for roughly 30 percent of PEF's energy generation. If a natural gas-fueled generation alternative is added to PEF's system, as opposed to the proposed Levy Units 1 and 2, natural gas energy generation is projected to rise to an estimated 56 percent by 2018. The addition of Levy Units 1 and 2 will serve to reduce PEF's future dependence on natural gas and fuel oil.

As illustrated in the table below, PEF is currently less reliant on natural gas because of its use of coal and nuclear generation. Nevertheless, pursuing additional nuclear generation will help PEF maintain a balanced fuel supply, which will result in less volatile total fuel costs over time.

PEF Fuel Projections: % Generation by Fuel Type ⁹			
	2006	2018 w/Levy 1 and 2	2018 w/o Levy 1 and 2
Nuclear	14	38	12
Coal	43	20	24
Natural Gas	30	36	56

Two main components of retail rates are base rates and fuel costs. Base rates are relatively stable. Fuel costs are passed through to retail customers through PEF's fuel adjustment clause. Since fuel costs are more volatile, they are adjusted annually to reflect actual costs. Evidence indicates that as PEF's system has become more reliant on natural gas for energy generation, retail rates have increased and fuel costs have become a greater portion of rates. If PEF continues becoming more reliant on natural gas, PEF's ratepayers may experience higher rates in the future with the majority of costs to be recovered through PEF's fuel adjustment charge. Consequently, having a diverse fuel mix could serve as a hedge against fuel price volatility.

Witness Weintraub testified that in reviewing the current generation mix and the projected generation mix for the State of Florida in 2016, the State is becoming extremely dependent on natural gas to meet its growing needs. Such a trend exposes the customers to the greater price uncertainty and volatility associated with natural gas. He also testified that the nuclear fuel has historically been the most stable and lowest-cost fuel to the customer.

Witness Weintraub testified that PEF's natural gas supply, which is transported into the State, is vulnerable to supply disruptions caused by extreme weather conditions. Witness Weintraub testified that during and following the hurricane seasons of 2004 and 2005, natural gas production was shut down, facilities were damaged, and production was limited until conditions improved. The reduced supply availability of natural gas caused upward pressure on natural gas prices. Witness Weintraub noted, however, that nuclear fuel does not face the same supply disruptions as fossil fuels, because, nuclear fuel is added to the units during refueling outages which typically take place once every 18 to 24 months.

In conclusion, we find that PEF has demonstrated that the addition of Levy Units 1 and 2 is needed to maintain PEF's diverse fuel supply as well as reduce the State's dependence on natural gas and fuel oil. The addition of Levy Units 1 and 2 would also provide a significant source of non-carbon emitting base load generation.

Need for Base-load Generating Capacity

There is a need for Levy Units 1 and 2, taking into account the need for base-load generating capacity, as this criterion is used in Section 403.519(4), F.S.

PEF argues that Levy Units 1 and 2 are needed because the Company needs over 2,000 MW of base load generation capacity beginning in 2016. PEF also asserts that without the addition of Levy Units 1 and 2, PEF will have to operate its more expensive natural gas units as base load generation rather than intermediate generation, exposing PEF's customers to higher

⁹ EXH 44, 88-90.

and much more volatile fuel costs. Furthermore, by the time Levy Units 1 and 2 are added, PEF's existing base load generation fleet will be nearly 40 to 50 years old; thus, the addition of Levy Units 1 and 2 to PEF's system is important to change the vintage of its existing base load generation. With the addition of Levy Units 1 and 2, PEF argues that it will be able to provide its customers with more reliable, efficient, and less costly base load generation.

OPC did not file a brief with respect to this issue. PCS contends that PEF has not established a need for Levy Unit 2. Additionally, PCS asserts that the addition of Levy Unit 1 will provide more base-load generating capacity than PEF needs to satisfy its reserve margin planning needs. PCS argues that while Levy Unit 2 would be operated as base-load capacity, none of that capacity is required by 2017. Furthermore, PCS contends that the record does not support the early retirement of other existing base-load or peaking generation. As such, PCS argues that Levy Unit 2 would add unnecessary excess base-load capacity to PEF's system and thus is not needed.

SACE argues that there is not a need for Levy Units 1 and 2 taking into account the need for base-load generating capacity. SACE asserts that the Commission must balance its analysis with concerns over overbuilding by the industry. Furthermore, SACE contends that this Commission has consistently held that the need should not be certified for a generic statewide need, rather than a specific utility need.

Our analysis indicates that PEF will have a 1,000 MW need for base-load capacity in 2009. Our analysis also indicates that PEF's base-load is incrementally increasing at the same pace as their peak load. This results in the projected 2,000 MW that PEF has indicated.

PEF currently projects to operate, at the most, five units at a capacity factor exceeding 80 percent in 2015, the last year before additional generation is proposed to be added. Of the five units, Crystal River Units 1, 2, 4, and 5 are coal units, and Unit 3 is a nuclear plant. These units total approximately 3,070 MW of summer capacity. If Levy Units 1 and 2 operate at PEF's projected 90 percent capacity rating, they would add 2,200 MW of needed base-load capacity on PEF's system.

Additionally, witness Crisp testified that in 2007, the Governor of Florida issued a series of Executive Orders that impacted PEF's Resource Planning process. Executive Order No. 07-127 set greenhouse gas (GHG) emission reduction targets for the utility sector. These GHG emission reduction targets are extremely aggressive, representing some of the deepest GHG emission reductions proposed for electric utilities in the country. The emission reduction targets include that by 2025, utility sector emissions shall not be greater than year 1990 utility sector emissions. Witness Crisp further testified that nuclear power is the only mature technology with significant potential to supply large amounts of power without emissions of pollutants or carbon dioxide and other GHGs.

Our analysis indicates that the addition of Levy Units 1 and 2 will allow PEF to meet its base-load needs almost entirely with coal and nuclear generation, thus deferring the use of natural gas as base-load generation. Such a scenario would provide benefits, as previously discussed, to PEF's system and ratepayers.

The evidence reflects that the proposed high availability rate of Levy Units 1 and 2 means that these units would represent a substantial amount of base-load capacity on its system. The record indicates that renewable generation and DSM available today or in the foreseeable future cannot provide enough base-load capacity to avoid the need or mitigate the need that would be met by the addition of Levy Units 1 and 2.

In conclusion, based on analysis, we find that PEF has a need for Levy Units 1 and 2 to provide needed base-load capacity in the years 2016 and 2017. We also believe that the projected 90 percent capacity factor associated with Levy Units 1 and 2 will adequately supply PEF's need.

Need for Adequate Electricity at a Reasonable Cost

There is a need for Levy Units 1 and 2, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519(4), F.S.

PEF contends that it demonstrated that Levy Units 1 and 2 will provide its customers with adequate electricity at a reasonable cost. In particular, PEF argues that the fuel for Levy Units 1 and 2, processed uranium, is both low in cost and stable in price. PEF further contends that its nuclear fuel forecasts show that, relative to fossil fuels, nuclear fuel will continue to be the most stable in price and lowest cost fuel available to PEF throughout the life of the nuclear units. It asserts that the nuclear fuel forecasts used to form the basis of its fuel price projections are undisputed, and were developed using recognized expert utility industry sources that are both consistent with PEF forecasting practices as well as utility industry standards.

OPC did not file a brief with respect to this issue. PCS argues that given the history of nuclear plant construction cost overruns, the long list of risk factors that are likely to affect construction cost and schedule, and the preliminary stage of procurement and contract negotiations, the record in this docket does not support a finding that Levy Units 1 and 2 are likely to provide electricity at a reasonable cost. PCS further contends that in order to effectively mitigate the economic risks to consumers associated with capital cost overruns, this Commission should establish reasonable bounds and undertake an on-going assessment of the project risks to consumers.

SACE contends that the glaring absence of finality in the projected costs, the uncertainty in the comparison analyses, and ancillary issues such as transmission reliability, represent fatal flaws in our ability to make findings of fact to support a decision. SACE argues that, given the uncertainty in capital costs, we should ensure that the Levy Units are built only if the full, long-term costs are planned for, and shown to be cost effective against other competing resources.

The construction of Levy Units 1 and 2 would add approximately \$17 billion dollars in generation assets to PEF's rate base. As discussed later, the analyses indicate that Levy Units 1 and 2 have a high likelihood of providing long-term net benefits to PEF's customers over a variety of fuel and environmental cost scenarios.

To evaluate the cost-effectiveness of the proposed units, PEF developed a non-binding cost estimate range based on the latest pricing obtained from the vendor, Westinghouse, and its joint venture partner, Shaw Stone & Webster (the Consortium). PEF also estimated transmission costs, as well as future costs relating to fuel (natural gas), spent fuel storage (nuclear), water usage, and emission related costs. Our analysis of PEF's economic assumptions as well as the prior mentioned cost estimates are discussed below.

Economic Assumptions

PEF's analysis assumed a weighted average cost of capital of 9.118 percent for purposes of this project. This rate of return is based on a capital structure consisting of 55 percent equity at a cost rate of 11.75 percent, and 45 percent debt at a cost rate of 5.9 percent. PEF utilized a 2.25 percent escalation rate and an allowance for funds used during construction (AFUDC) rate of 8.848 percent. PEF's treasury department is monitoring the requirements and availability of Department of Energy (DOE) loan guarantees, DOE standby support agreements, and federal production tax credit timetables to ensure these options are open when PEF determines if these programs are beneficial. PEF witness Lyash testified that the preconstruction stages of the project will be financed with debt and equity, but PEF cannot provide specifics at this time regarding the financing plan for the Levy project. There was no evidence presented in the record that disputes the reasonableness of PEF's financial assumptions. Based on this review, we find that the financial assumptions used for this evaluation are reasonable.

Generation Cost Estimates

At this time, PEF estimates that Levy Units 1 and 2 will have an in-service cost of approximately \$14.1 billion. This value includes \$3.245 billion for AFUDC. PEF bases this estimate on the latest pricing obtained from the vendor, Westinghouse and its joint venture partner Shaw Stone & Webster. These cost estimates assume that cost savings will be realized on Levy Unit 2, as long as it is constructed within approximately 12 to 18 months of Levy Unit 1. PEF projects Levy Unit 2 to cost \$5.8 billion, which is more than \$2 billion less than Levy Unit 1 (\$8.3 billion). The \$14.1 billion cost estimate total translates to an estimated overnight cost of 5,144 \$/kW for Unit 1 and 3,376 \$/kW for Levy Unit 2, based on summer capacity ratings. These estimates are based on the best information available to PEF at the time of its filing. PEF intends to execute an Engineering Procurement Contract (EPC) with the Consortium by the end of 2008. PEF's current estimates appear to be consistent with those of FPL, which did not have a vendor, for Turkey Point Units 6 and 7, which was recently approved by this Commission.¹⁰ Unlike the FPL need determination case where the utility developed a range of costs based on a variety of designs, PEF has performed a more traditional revenue requirement analysis since PEF expects to sign a contract with its chosen vendor, Westinghouse, by the summer of 2008. Therefore, more is known about the costs associated with Levy Units 1 and 2 than was known about FPL Turkey Point Units 6 and 7 at the time of each need determination proceeding. We find that PEF's capital cost estimates are reasonable at this time.

¹⁰ Order No. PSC-08-0237-FOF-EI, issued April 11, 2008, in Docket No. 070650-EI, In re: Petition to determine need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.

Transmission Costs

PEF's initial transmission cost estimates range from a low of \$1.85 billion to at least \$2.5 billion, excluding AFUDC. Witness Oliver testified that PEF developed its estimates based on the most recent costs to construct new 230 kV transmission facilities, including the cost of land acquisition, materials, equipment, and labor, and their best estimate of where possible routes may be sited. Engineering consultants and internal engineering and right of way personnel worked together to create the cost estimates for the likely transmission and substation projects. Costs estimates were created using the latest available costs for similar transmission work performed by PEF and in the industry. Transmission line estimates were based on the latest average industry per mile costs (labor and materials) exclusive of right-of-way costs. Right-of-way costs were based on the average per acre cost of property for the existing land use category (urban, rural, agricultural) in the applicable county. Projected transmission costs also included estimated legal costs associated with eminent domain. PEF estimated substation costs based on the latest costs for similar facilities on PEF's system and in the industry. These estimates were adjusted to reflect the amount of major equipment (such as transformers and breakers) associated with the particular substation. Current year costs were escalated for the year of the expected expenditure. PEF notes that this is consistent with how others in the industry develop estimates for similar projects.

In addition, witness Oliver testified that PEF's preferred corridors have changed since the filing of this need determination application. He further testified that several corridors that were studied but not selected included crossings over the Rainbow River, the expansion of facilities in PEF's existing right-of-way in the Brooker Creek Preserve, and the addition of a 500-kV line from the Brookridge Substation south to Lake Tarpon. Witness Oliver asserts that PEF no longer plans to use these corridors in the Levy project.

We find that PEF's transmission cost estimates are reasonable at this time. No evidence was presented that challenged PEF's transmission cost estimates.

Fuel Forecasts

As part of the economic evaluation of Levy Units 1 and 2, PEF witness Weintraub forecasted the prices of natural gas, residual fuel oil, coal, and distillate fuel oil. The forecast period extends out to the year 2066. Witness Weintraub testified that the differential between forecasted natural gas and nuclear fuel prices is a key driver in the selection of PEF's future generation options.

PEF's basic fossil fuel forecasts are its medium price forecasts. PEF relied upon two economic and energy forecasting firms, PIRA Energy Group and Global Insight to provide the basic price forecast. The natural gas and oil price forecasts period is through 2020 for PIRA and 2026 for Global Insight. Beyond these periods, PEF employed a price escalator for the forecasts.

For residual oil, natural gas, and coal, PEF developed high and low price forecasts based on the 90th percentile above and below the basic, mid-reference fuel price forecast. The high and low price forecasts specify a range that allows for possible price outcomes and the uncertainty of

price forecasts in the economic analysis. Although PEF provided high and low price forecasts in this filing, witness Weintraub testified that the high price forecast is more likely than the low price forecast, because of the potential impacts of changes in environmental policy. However, for economic evaluation purposes, witness Weintraub contends that the mid-reference forecast is the most likely scenario.

We find that PEF's fuel price forecasts are reasonable for purposes of evaluating its expansion plans. PEF's fossil fuel price forecast relies upon two recognized consultants. Further, PEF compared the forecast to the forecast in the Annual Energy Outlook published by the Energy Information Administration. PEF states that its fossil fuel price forecast is conservative in comparison with various third party forecasts. Higher forecasted gas prices cause the planned nuclear units to be more cost-effective in the economic analysis.

The nuclear fuel price forecast provided by PEF witness Siphers is based on projections by market consultants who study nuclear fuel supply and demand worldwide. The forecast covers the four steps needed to make nuclear fuel: uranium mining, conversion, enrichment, and fabrication. Witness Siphers testified that nuclear fuel prices are less volatile than fossil fuel prices and expects this trend to continue. He further testified that uranium supply is currently tight but that the supply will be adequate since the development of new mines take less time than the construction of nuclear power plants.

PEF asserts that it compared its nuclear fuel price forecast to an independent forecast to ensure reasonableness. For its nuclear fuel price forecast, PEF relied upon the Ux Consulting Company and NAC International, two widely-recognized firms in the area of nuclear fuel.

Spent Nuclear Fuel Disposal

In the nuclear fuel price forecast, witness Siphers included a 1 mill per kWh spent fuel disposal fee. Witness Siphers testified that the disposal of spent nuclear fuel from Levy Units 1 and 2 will be stored in a spent fuel pool until sufficient cooling has occurred. After that, the spent fuel will either be stored on site in dry cask storage, or disposed or reprocessed by the DOE. The cost of dry cask storage has not been included for economic evaluation purposes. Witness Siphers asserts that, while PEF does not yet have a contract with DOE for spent nuclear fuel disposal, the Nuclear Waste Policy Act of 1983 establishes the responsibility for disposal with the Federal Government.

Environmental Costs

In assessing the environmental compliance costs associated with PEF's petition for need, we considered whether PEF included a reasonable level of environmental compliance costs associated with the proposed Levy Units 1 and 2. The major air emission effluents considered for a power generating unit are sulfur dioxide (SO₂), nitrogen oxides (NO_x), mercury (Hg), and carbon dioxide (CO₂). In its need filing, PEF included the compliance costs of all four major air emissions in its economic analysis.

For the SO₂ and NO_x forecasts, PEF utilized the most recent forecasts from JD Energy through the first 20 years of the study period. Once these forecasts were projected up through the 20-year study period, the allowance forecasts remained static for the remainder of the study period. The Hg forecast included in PEF's resource planning scenarios is based on preliminary EPA estimates. PEF derived its Hg compliance cost by loading the EPA's estimate into its resource planning computer model and escalating the estimates throughout the life cycle of the study period based on a cumulative average growth.

PEF derived its CO₂ emission costs by reviewing a broad spectrum of information regarding the potential economic impacts of climate change legislation being proposed at the state and national level. The available study information, which predicted the potential cost of CO₂ emissions in the future, was then assembled. PEF only used those studies that already had their values estimated out to 2050 for the compilation of the information for its analysis. Apart from normalizing those figures that were presented in 2005 or 2007 dollars by converting them all into nominal dollars, PEF tried to avoid further manipulation of the data. These processes resulted in nine CO₂ cost scenarios. PEF then further selected four CO₂ cost scenarios to cover a representative range of potential future cost impacts of CO₂ emissions. The four CO₂ cost scenarios, include the Bingaman-Specter, the EPA No CCS Tech, the MIT Study-Mid, and the CRA Study Lieberman-Warner. In performing the economic benefit analysis, each of these CO₂ cost scenario sensitivities was included in PEF's economic and production cost models to develop the corresponding system performance and revenue requirements cost estimates reported in the Need Study. The environmental compliance cost estimates were used to form each scenario by establishing the system emissions of air effluent and applying the forecast allowance price to the total emission. When the economic results for the scenarios were compared, the differential production costs, including fuel and environmental compliance costs, were calculated to establish the appropriate economic benefits of all of the scenarios analyzed.

Our analysis revealed that PEF's CO₂ emission price projections, used for deriving the economic benefits of Levy Units 1 and 2, were much higher than those projections used by FPL in its Turkey Point 6 and 7 Nuclear Units Need Determination filing that we recently approved. PEF witness Kennedy testified that PEF selected four CO₂ price scenarios that were higher than FPL's selected corresponding CO₂ price scenarios. Witness Kennedy also testified that in analyzing the trends of CO₂ forecasts over the entire forecast horizon for the period 2030 through 2050, the differences between PEF's CO₂ price forecast and FPL's CO₂ price forecasts increased in disparity. In particular, the rate of increase of PEF's CO₂ forecasts were much higher than the forecasts FPL had used in its need case. Witness Kennedy testified that higher CO₂ costs could result in higher overall environmental compliance costs. We believe that since nuclear generation is a non-carbon emitting generation source, an increase of future environmental compliance costs associated with CO₂ would also increase the overall cost-effectiveness of Levy Units 1 and 2.

PEF argued that each of the agency studies and consultant reports of the CO₂ price forecasts reviewed by PEF presented a range of potential outcomes depending on the development of emission taxes or cap-and trade mechanisms, allowance allocations and banking rules, offset and regional implementation rules, and many other factors. Thus, opinions on how

these CO₂ regulatory scenarios might develop differed among constituents in the utility industry. However, PEF witness Crisp testified that it is generally accepted within the utility industry that some form of new regulation relating to the creation of limitations on greenhouse gas emissions will be implemented. Witness Crisp further asserted that the anticipated limitations on CO₂ emissions will in all likelihood create conditions favorable for technologies like nuclear generation that provide substantial, reliable, and emission-free electricity.

Among the four CO₂ price projections PEF used in this need filing, the CRA Study Lieberman-Warner is the highest CO₂ cost scenario. PEF selected this case because the Lieberman-Warner bill was the latest available congressional bill at the time when PEF performed the CO₂ cost study. At that time, CRA (Charles River Associates) was the only entity that had studied it in any detail. Since the time that PEF selected the CRA Study Lieberman-Warner as its highest CO₂ compliance cost scenario, CRA has released an updated CRA Study Lieberman-Warner. During the hearing, PCS circulated a series of slides entitled "Economic Analysis of the Lieberman-Warner Climate Security Act 2007 Using CRA's MRN-NEEM Model," dated April 8, 2008. Witness Kennedy testified that the CO₂ price forecasts presented in this document were substantially lower than which were contained in CRA's previous study that PEF had used in its economic analysis of this need filing. PCS pointed out that CRA's new CO₂ price forecast was significantly lower than the price forecast contained in PEF's CO₂ price projections. Witness Kennedy further testified that CRA's CO₂ price forecast had changed and was substantially lower than the CO₂ price forecast presented by PEF as the CRA Lieberman-Warner scenario. Moreover, witness Kennedy testified that PEF has not taken the information contained within the updated CRA Study Lieberman-Warner into account within its environmental compliance cost scenarios. On the basis of the foregoing, we believe that the environmental scenario developed by PEF on the basis of the 2007 CRA Study Lieberman-Warner should be given less evidentiary weight as it is not based on the most current information available to PEF.

In this proceeding PEF modeled each one of the emission compliance costs scenarios independently of the other. PEF did not prepare a relationship between CO₂ and the other emissions, SO₂, NO_x and Hg. As such, PEF included four scenarios for CO₂ but only one scenario each for SO₂, NO_x and Hg; whereas, in the Turkey Point 6 and 7 Need Determination, FPL included four sets of compliance cost forecasts for SO₂, NO_x and Hg respectively, each corresponding to different CO₂ cost scenarios. PEF witness Crisp testified that as PEF performed the screening model analysis, it determined that the SO₂, NO_x, and Hg impacts were so minor within the overall cost impacts of the analysis that variations around these pollutants would not affect the outcomes of the economic analysis significantly. We concluded that the compliance allowance projections of SO₂, NO_x, and Hg used by PEF in this need filing were much lower than those projections used by FPL in its need determination filing. We further determined that the variations within the actual compliance costs associated with SO₂, NO_x, and Hg result from variations within the source documents selected. Although the source documents selected by PEF and FPL in each need filing case differ from each other, we believe that all the source documents are produced by credible consulting companies or governmental agencies. Thus, we find that the source documents used by PEF in this need filing are reasonable.

We compared the environmental inputs (the SO₂, NO_x, Hg and CO₂ emission allowance price projections) to the cost-effectiveness analysis of Levy Units 1 and 2. We find that the SO₂, NO_x, and Hg allowance price projections used in this filing are reasonable. We also find that the CO₂ price projections used in the cost-effective analysis represent a reasonable range of forecasts based upon CO₂ compliance cost studies available to PEF at the time that the cost-effective analysis was undertaken. Since the price forecasts are based upon on-going federal CO₂ legislation, we find it appropriate that PEF provide updated cost information as part of its annual feasibility report.

Water Costs

Nuclear units require cooling water for operation. PEF estimated that Levy Units 1 and 2 would need to withdraw approximately 100 to 130 million gallons per day (MGD) of water from the Gulf of Mexico and approximately 41 MGD is expected to be consumed (evaporated) with the remainder returned to the Gulf. PEF also estimated that less than 1.5 MGD would be drawn from the aquifer for potable water uses.

PEF witness Crisp testified that the Gulf of Mexico is nearly an infinite source of reliable water. The water drawn from the Gulf of Mexico will be transmitted to the plant through the federally maintained Cross-Florida Barge Canal. A significant design criterion for the plan has been set by PEF, such as piping the cooling water over the Withlacoochee River and under Highway 40 to the site, in order to provide the least amount of impact to the environment. The labor, material, and equipment for the intake structure, makeup pumps, and associated system piping and electrical are included in the capital cost estimate of this need determination filing. The O&M costs are also included in the filing. Regarding the concerns of aquatic life that may be affected by the marine water intake, PEF has been consulting the DEP and Marine & Fisheries Wildlife and PEF is developing design features for protecting endangered species, manatees, turtles, etc. These design features will be incorporated into plans for the proposed plant. PEF has included the related aquatic life protection costs in the economic analysis of this need filing.

PEF claimed that only a limited amount of fresh water (less than 1.5 MGD) will be drawn from the aquifer. Florida's aquifers are a proven reliable source of fresh water for PEF's limited fresh water needs for Levy Units 1 and 2. We note that PEF has conducted studies and consulted experts with regard to the potential impact that PEF's additional per day fresh water consumption stemming from Levy Units 1 and 2 might have on the Crystal River area or the aquifer. PEF witness Roderick testified that PEF had done extensive work with environmental and biology companies and companies engaging in water studies. In addition, witness Roderick specified that PEF had worked with Levy County and the City of Inglis to develop an understanding of PEF's water needs associated with the aquifer. Witness Roderick also testified that PEF explained to the local people in Levy that the proposed units would not have any adverse impact on the aquifer.

We have reviewed whether the costs of the water supply needed for Levy Units 1 and 2 are reasonable and whether the resources of the water required are reliable. We believe that PEF's estimated costs associated with the cooling water supply have been appropriately included

in the economic analyses of Levy Units 1 and 2. The water supply options available to PEF are readily available for the life of the proposed units. PEF intends to conduct a study regarding the impacts of both marine and fresh water consumption of the proposed nuclear units and is planning to implement corresponding measures for mitigating such impacts.

Projected Performance Specifications

Also critical in PEF's evaluation of generation alternatives was technology selection and projected performance specifications. Witness Lyash testified that no AP1000 units have been constructed; however, the design has been vetted through the NRC process and the AP1000 design has been approved by the NRC. Witness Roderick testified that although the AP1000 is not a new design, it is an enhanced design built on the experience of the last 30 years.

PEF is projecting Levy Units 1 and 2 to operate as base-load units with 90 percent capacity factors over time. If the units fail to generate at or above the proposed capacity factors, long-term benefits will be reduced. Although PCS contends that PEF's projected capacity factors are not reasonable, it did not offer a more reasonable value that should be used. Additionally, as illustrated in the table below, since 1998 the performance of Crystal River Unit 3 has been comparable or has exceeded PEF's projections for Levy Units 1 and 2. We find that PEF's projected performance specifications are reasonable at this time.

Crystal River Unit 3: Generation Data ¹¹	
Year	Capacity Factor
1998	90.5%
1999	88.9%
2000	98.3%
2001	89.2%
2002	99.9%
2003	90.1%
2004	99.2%
2005	86.5%
2006	94.7%
2007	90.9%

In conclusion, we believe the cost estimate information presented in the record is reasonable.

No Mitigating Renewable Energy Sources and Technologies or Conservation Measures

There are no renewable energy sources and technologies or conservation measures taken by or reasonably available to PEF which might mitigate the need for Levy Units 1 and 2.

PEF argues that it has demonstrated via undisputed evidence that PEF has used all reasonably available renewable energy sources and PEF still needs Levy Units 1 and 2. PEF asserts that, in accordance with Commission rules, it has engaged in an extensive evaluation of

¹¹ EXH 13.

all available renewable generation resources and entered into contracts with five renewable energy providers as well as three biomass facilities. Moreover, PEF contends that it continues to monitor for additional renewable energy projects. However, PEF asserts that despite its extensive efforts to develop additional renewable generation resources in Florida, no additional renewable generation resources exist, and Levy Units 1 and 2 are still needed to meet future customer capacity and energy needs.

PCS and OPC did not take a position with respect to this issue. SACE contends that PEF has failed to offer sufficient incentives to its customers to engage in PEF programs designed to maximize energy efficiency. SACE argues that PEF's failure to adequately incent customer participation in energy efficiency programs contravenes PEF's assertion that it has taken all reasonable energy efficiency measures that could mitigate the need for Levy Units 1 and 2. SACE did not show how an increase in incentives would increase participation within any DSM measures.

PEF evaluates its DSM cost-effectiveness programs using an integrated resource planning model called Strategist. This model is specifically designed to compare the measures against a base resource plan and to compute the cost-benefit ratios for each of the Commission based cost effectiveness tests. The model can also be built to include multiple DSM bundles that are large enough to be evaluated against multiple generation units.

In determining programs to offer its customers, PEF determines which measure will provide the most benefits to all rate payers. PEF reviews the potential for each of PEF's customer segments, then analyzes the tests against the three Commission-approved cost-effectiveness tests, then determines appropriate incentives to maximize participation. Witness Masiello testified that this method ensures that the DSM programs PEF offers will reduce the rates for all of its customers, for both DSM participants and non-participants alike.

PEF evaluates cost-effectiveness of renewable energy projects in accordance with Rules 25-17.200 through 25-17.310, F.A.C. The cost of the energy must be at or below the avoided cost to produce the energy. Renewable attributes such as renewable energy credits (RECs) and tax credits are not included in the payments and may represent an additional revenue resource for the renewable resource. PEF has over 173 MW of renewable power from purchased power contracts.

Witness Niekum testified that solar is not a cost-effective or reliable energy resource for large scale projects in Florida. He testified that small photovoltaic (PV) devices have some promise in some areas of the country. The witness did not specify what areas of the country have promise for small PV devices. The technology still has a long way to come before it is cost-effective on a large scale. According to Niekum, for the immediate future, PVs cannot produce cost effective or reliable energy in Florida on a large-scale basis. He further testified that the cost of energy from PV systems is about \$0.32 per kWh, which is about five times the cost of biomass generation.

During the hearing, witness Crisp was asked if the use of solar thermal water heaters could defer the need for Levy Units 1 and 2. He testified that the use of solar water heaters

would be eight times more expensive than the Levy Units. He also testified that the use of solar water heaters would have a very minimal impact on PEF's requirements.

Other renewable alternatives such as solar, wind, and wave energy have not yet become cost-effective, and these technologies are highly dependent upon intermittent natural energy sources that can be a valuable energy resource but cannot be depended upon to produce firm capacity. As windmill and transmission technologies improve, these technologies may unlock the potential of wind in Florida. In the foreseeable future, however, PEF argues that wind-powered generation is not economic or feasible in Florida. Florida only has marginal wind resources that are along the coastline. There may be sufficient wind resources off-shore in Florida, but transmitting energy from off-shore sources is, among other things, still very expensive and often impractical.

PEF continues to search for other sources of renewable energy through a cooperative process between developers and PEF in order to bring such projects to fruition. PEF is looking to expand its inventory of renewables. PEF recently contracted with Florida Biomass Energy Group to provide energy from biomass, and it also purchases energy from municipal solid waste (MSW) facilities. PEF also purchases renewable energy from PCS on an as-available basis.

PEF has predicted a DSM savings of over 2,000 MW of winter demand by the year 2016. PEF is currently under contract to have 439 MW of renewable energy available from power contracts before the in-service dates of Levy Units 1 and 2. Since these facilities have not yet been built and these facilities rely on unproven technology or fuels, there is a risk that over 250 MW of generation from renewable resources will not be available when needed. PEF is looking to bring on additional renewable energy from MSW before 2017. PEF has identified a need for power that is greater than these two resources. Based on the record, we find that there are no renewable energy sources and technologies or conservation measures reasonably available to PEF that might mitigate the need for Levy Units 1 and 2.

Most Cost-Effective Source of Power

Levy Units 1 and 2 will provide the most cost-effective source of power, as this criterion is used in Section 403.519(4), F.S.

PEF contends that, after undertaking an exhaustive internal review of both its demand-side and supply-side options, Levy Units 1 and 2 are the most cost-effective option available to PEF to meet its reliability needs.

OPC did not file a brief with respect to this issue. PCS contends that many of the assumptions used in PEF's cost-effectiveness analysis are not correct, and thus render the analysis unreliable. PCS further argues that a 60-year CPVRR comparison is inherently unreliable, particularly in the instant case, where PEF's analysis is premised on a national system for regulating carbon emissions that does not currently exist. PCS asserts that given PEF's speculative cost-effectiveness analysis, we should adopt consumer protections to effectively mitigate the risks posed by potential cost overruns.

SACE argues that considerable uncertainties exist within PEF's estimates of costs. In particular, SACE contends that PEF's cost-effectiveness analysis is flawed because it relies upon assumptions with regard to construction and operation costs, the contracts for which have as yet to be finalized. Moreover, SACE argues that the lack of comparison with a renewable alternative renders the cost-effectiveness tests incomplete.

Witness Crisp testified that supply-side resources are typically evaluated in the Strategist model over a ten-year planning period and a thirty-year study period. With the evaluation of new nuclear generation beginning in 2016, however, the use of a typical thirty-year study period accounts for the costs and benefits of only the first twenty years of commercial operation of the nuclear generation units because there are ten years in the model before commercial operation of the nuclear units is planned. The economic benefits from the commercial operation of Levy Units 1 and 2, however, will continue over the 60-year expected life of the units. The 60-year expected life of Levy Units 1 and 2, includes a 40-year initial license period plus the accepted convention based on experience that the license for such units can be extended an additional 20 years. We believe that such a study period is reasonable.

There are two primary drivers for the economic analysis of Levy Units 1 and 2. One driver is the differential in fuel price and the other is the cost of carbon. The economic impacts of environmental costs and fuel costs are about equal in this proceeding. In contrast, fuel was the primary driver in the FPL Turkey Point 6 and 7 proceeding. As with similar need determination filings, PEF performed its cost-effective analysis under a wide range of scenarios that combined three fuel forecasts (low, medium, and high) and five CO₂ compliance cost projections, one of which did not include CO₂ compliance costs. The proposed nuclear expansion plan and an all natural gas expansion plan were analyzed giving consideration to fifteen different fuel/environmental scenarios. The reasonableness of the cost projections with each fuel and environmental scenario is previously discussed in this order. Based on the CO₂ cost-related discussions previously presented, we believe that when evaluating the economic benefits of the proposed nuclear units, we should focus on the analysis outcomes derived from three CO₂ cases: Bingaman Specter CO₂ case, EPA No CCS CO₂ case, and MIT Mid CO₂ case.

Witness Crisp testified that scenarios which included low fuel costs are less likely than other fuel scenarios. Witness Crisp also testified that any scenario, which did not include CO₂ compliance costs was not likely. As a result, witness Crisp excluded the seven scenarios that included either low fuel costs or no CO₂ compliance costs scenarios. The elimination of the seven scenarios left the eight scenarios which PEF considered most likely. No parties argued against the elimination of the seven discussed scenarios.

Our review of the eight remaining scenarios showed that the nuclear expansion plan, as proposed, proved to be cost-effective in seven of the eight scenarios. Negative numbers in the table below represent a scenario in which the addition of Levy Units 1 and 2 is not cost-effective. Positive numbers, consequently, represent scenarios in which the addition of Levy Units 1 and 2 is cost-effective.

Levy 1 and 2 vs. Gas Expansion (\$2007 in Millions) 2007-2066 (60 Year Life) ¹²			
Environmental Scenarios	Fuel Reference		
	Mid		High
	Bingaman Specter		(\$343) \$5,212
	EPA No CCS		\$793 \$6,318
	MIT Mid Range		\$3,614 \$9,077
	Lieberman Warner		\$6,380 \$11,892

Witness Crisp testified that when both Levy Units 1 and 2 are on-line, fuel savings are estimated to be at least \$930 million annually. Witness Crisp further testified that the additions of Levy Units 1 and 2, as opposed to a natural gas fleet, will result in \$92 billion in cumulative present value revenue requirement (CPVRR) savings to the customer.

Additional expected savings are realized when PEF's projected environmental compliance costs are taken in to consideration. PEF projects compliance costs to range from \$18 - \$72/ton of CO₂ in 2018. PEF further projects these compliance costs to range from \$526 - \$1,217/ton of CO₂ in 2066. Over the 60-year expected life of the units, PEF estimated that Levy Units 1 and 2 would avoid approximately 384 million tons of CO₂ compared to a natural gas-fired, combined-cycle facility.

Currently, major air quality regulations at the state and the federal levels include the Clean Air Interstate Rule (CAIR), which requires significant reductions in SO₂ and NO_x emissions and the Clean Air Mercury Rule (CAMR), which requires reductions in Hg emissions from fossil fuel-fired power plants nation-wide. The Clean Air Visibility Rule (CAVR) may require additional reductions in SO₂ and NO_x in order to improve and protect visibility in national parks and wilderness areas. All of these regulations significantly affect PEF's existing generation fleet. Thus, when planning a new generation unit, the associated air emission costs and the costs of installation of the compliance technologies should be taken into consideration; otherwise, pollution control technologies could still be required to be added after the planned unit is placed in service. Witness Kennedy testified that PEF is currently implementing its compliance plan to meet the new regulatory requirements, which will include its investing more than \$1.2 billion in pollution control installations at some existing fossil fuel-fired facilities.

We also analyzed the proposed expansion plan over a 40-year period. This analysis indicated that given a traditional 40-year CPVRR the proposed Levy Units 1 and 2 would still prove to be cost-effective in six of the eight scenarios. These results are tabulated in the table below. Comparison of the 40-year study and the 60-year study indicate that, because of the discussed potential fuel and environmental savings associated with the nuclear generation expansion plan, the benefits of Levy Units 1 and 2 increase over time.

¹² EXHs 44 and 85.

Levy 1 and 2 vs. Gas Expansion (\$2007 in Millions) 2007-2046 (40 Year Life) ¹³			
Environmental Scenarios		Fuel Reference	
		Mid	High
	Bingaman Specter	(\$2,366)	\$2,226
	EPA No CCS	(\$1,506)	\$3,078
	MIT Mid Range	\$629	\$5,163
	Lieberman Warner	\$2,355	\$6,925

While the operating costs associated with a nuclear plant are very low and produce significant savings, the capital costs for a nuclear plant are substantial. This situation results in an initial increase in total costs until the lower operating costs can offset the higher capital costs. Subsequently customers' rates reflect this trend and initial rate increases can be considerable.

During the 2006 legislative session, the Florida Legislature enacted Sections 366.93 and 403.519(4), F.S., which effectively mitigate the economic risks associated with the long lead time and high capital costs associated with nuclear power plants. Section 366.93(2), F.S., requires this Commission to establish alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear power plant. Such mechanisms shall be designed to promote utility investment in nuclear power plants and allow for the recovery in rates of all prudently incurred costs. Sections 366.93(3) and (5), F.S., allow a utility to request recovery of costs after a need determination has been granted and require annual cost information to be filed with this Commission. Finally, if a utility elects not to continue with the construction of a new nuclear plant, Section 366.93(6), F.S., allows the utility to recover costs prudently incurred up to the date of termination. Such measures are unique to nuclear and integrated gasification combined cycle power plants. We will review the continued feasibility of Levy Units 1 and 2 during its annual nuclear cost recovery proceedings; thus, providing the appropriate checks and balances to ensure that the construction of the nuclear units continues to be in the best interest of PEF's ratepayers.

Witness Lyash testified that depending upon the terms and conditions of any joint ownership agreement, a joint ownership arrangement might provide benefits to PEF's customers by, among other things, spreading the capital risks associated with a project of this magnitude. In addition, witness Crisp testified that PEF ran a sensitivity analysis on potential joint ownership up to 20 percent. Our analysis of the cumulative present value revenue requirements for an 80 percent ownership expansion plan showed reduced initial costs, however, long-term savings were also reduced. The results of these analyses, illustrated in the table below, also proved to be cost-effective in seven of the eight fuel and environmental scenarios.

¹³ EXH 13.

Levy 1 and 2 vs. Gas Expansion (\$2007 in Millions) 80% Ownership 2007-2066 (60 Year Life) ¹⁴			
Environmental Scenarios	Fuel Reference		
	Mid		High
	Bingaman Specter	(\$733)	\$3,756
	EPA No CCS	\$171	\$4,631
	MIT Mid Range	\$2,403	\$6,790
	Lieberman Warner	\$4,594	\$9,018

PEF also performed a cost-effectiveness analysis assuming only one nuclear unit. As anticipated initial costs and long-term savings were reduced, however, such a plan proved to be cost-effective in only five of the eight fuel and environmental scenarios. During the hearing, witness Crisp testified that the construction of only one unit is not a viable option. The dilemma facing PEF, therefore, becomes assessing the trade-offs between short-term costs and long-term benefits.

Levy 1 vs. Gas Expansion (\$2007 in Millions) 2007-2066 (60 Year Life) ¹⁵			
Environmental Scenarios	Fuel Reference		
	Mid		High
	Bingaman Specter	(\$2,569)	\$254
	EPA No CCS	(\$2,058)	\$781
	MIT Mid Range	(\$851)	\$2,109
	Lieberman Warner	\$343	\$3,431

Witness Crisp asserted that circumstances are likely to change as cost estimates are refined and costs are incurred over the next decade as PEF proceeds toward commercial operation of Levy Units 1 and 2. Witness Crisp further testified that to account for the inherent uncertainty surrounding the cost of Levy Units 1 and 2, PEF also evaluated the units in the Strategist model using five, fifteen, and twenty five percent cost increase in capital costs, as well as a five percent decrease in capital costs. PEF performed this assuming a mid-level fuel forecast. Based on the cost sensitivity analyses, the generation resource plan with Levy Units 1 and 2 is still the most cost-effective plan when accounting for the likely range of CO₂ compliance costs. Witness Crisp also testified that the cost sensitivity analyses can be used to look at any and all potential reasons for cost increases.

Witness Crisp testified that under EPACT, federal production tax credits were provided as an incentive for utilities to invest in nuclear power generation. PEF has estimated the value of the production tax credits for customers at \$88 to \$167 million if Levy Units 1 and 2 are brought

¹⁴ EXH 44, 98.

¹⁵ EXH 13.

on line by 2016 and 2017. PEF did not include the production tax credit benefits in its CPVRR evaluation. The production tax credit benefits, therefore, represent an additive potential benefit for PEF's customers.

Witness Crisp also asserted that EPACT provides utilities that develop and commence operation of new nuclear reactors DOE loan guarantees and DOE stand-by support, which is a type of risk insurance. Witness Crisp testified that it is unclear at this time, however, whether the DOE loan guarantees and stand-by support will be available to the Levy project. We find that PEF shall continue to review whether such programs will be available in order to maximize the net benefits to its ratepayers.

In conclusion, the results of PEF's cost-effectiveness analysis indicate that Levy Units 1 and 2 are projected to produce savings in seven of the eight most likely scenarios considered. Such results indicate a high likelihood of PEF's ratepayers realizing net benefits over the life of the project. Levy Units 1 and 2 are projected to produce annual fuel savings of nearly \$1 billion dollars starting in 2018, and about \$92 billion over the life of the units when compared to a combined cycle alternative. As environmental compliance costs increase, so do the benefits associated with Levy Units 1 and 2, because nuclear generation is considered a "non-emitting" technology for GHG emissions. For the foregoing reasons, we believe that Levy Units 1 and 2 will provide the most cost-effective source of power.

We understand that the long lead time associated with the permitting and construction of a nuclear plant means that many details of the project may not be known at the time a utility files for a determination of need. However, recent legislation recognizing the unique nature of nuclear power plants urges us to approach a determination of need from a slightly different perspective. Unlike more traditional need determination proceedings, the annual nuclear cost recovery proceedings will provide a forum for us to continue to gather and review additional information as it becomes available.

We recognize the significant impact that Levy Units 1 and 2 will have on customer rates. Although long term benefits may be reduced, PEF should continue to pursue joint ownership opportunities in an effort to further mitigate the initial rate impacts associated with the proposed project. We would encourage PEF to seek pro rata cost sharing during joint ownership discussions. Updates regarding joint ownership discussions shall be provided during annual nuclear cost recovery proceedings.

Conclusion and Additional Requirements

PEF contends that for all of the foregoing reasons, and based on the preponderance of the evidence presented at the hearing, the Commission should grant PEF's Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants.

PCS argues that PEF has not demonstrated that there is a reliability need for both Levy Units. PCS additionally contends that absent the consumer safeguards that PCS recommends, the record does not support a Commission order granting a determination of need for either Levy Unit.

SACE argues that the record does not support a conclusion that Levy Units 1 and 2 are the most cost-effective alternative to serve the need for electricity. As such, SACE asserts that the Commission should deny this petition on the grounds that a need for the plant has not been demonstrated.

We hereby approve PEF's petition for determination of need for Levy Units 1 and 2 for the following reasons:

First, PEF demonstrated a reliability need for additional base-load capacity by 2016. Levy Units 1 and 2 will add 2,200 MW of nuclear fueled GHG emission free base-load generating capacity which is needed to keep pace with the increasing demand for reliable power and the steady population growth in the State of Florida.

Next, Levy Units 1 and 2 represent a critical component in PEF's efforts to maintain a diverse fuel mix and reduce the State's dependence on natural gas and fuel oil. Maintaining a balanced fuel portfolio will result in less volatile total fuel costs over time and will enhance the reliability of the electrical system.

In addition, PEF's assumptions and predictions indicate that Levy Units 1 and 2 will provide adequate electricity at a reasonable cost.

The evidence shows that despite PEF's proposed incremental increase of 512 MW of DSM and more than 250 MW of cost-effective renewable energy contracts, additional capacity would still be needed in 2016 to meet PEF's need for base-load generation.

Lastly, PEF's analysis illustrates a high probability of customer savings during the life of the proposed Levy Units 1 and 2. Additionally, the fuel and environmental benefits of Levy Units 1 and 2 could continue beyond the analysis presented in this proceeding.

Based on the foregoing, we find that PEF has demonstrated a need for Levy Units 1 and 2. PEF shall provide a long-term feasibility analysis as part of its annual cost recovery process which, in this case, shall also include updated fuel forecasts, environmental forecasts, non-binding capital cost estimates, and information regarding discussions pertaining to joint ownership. In addition, PEF should account for sunk costs. Providing this information on an annual basis will allow us to monitor the feasibility regarding the continued construction of Levy Units 1 and 2.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Progress Energy Florida, Inc.'s petition for determination of need for Levy Units 1 and 2 is granted. It is further

ORDERED that Progress Energy Florida, Inc. shall provide a long-term feasibility analysis as part of its annual cost recovery process which, in this case, shall also include updated fuel forecasts, environmental forecasts, non-binding capital cost estimates, and information regarding discussions pertaining to joint ownership. It is further

ORDERED that this docket shall be closed if no appeal is filed within the time period permitted for filing an appeal of this Order.

By ORDER of the Florida Public Service Commission this 12th day of August, 2008.



ANN COLE
Commission Clerk

(S E A L)

KEF

CONCURRENCE BY: COMMISSIONER SKOP

COMMISSIONER SKOP, concurring specially with comment:

With respect to the issue of joint ownership, the Commission order does not accurately reflect the substance of the cost sharing comments that I raised during the bench discussion. In this regard, I would encourage PEF to seek full pro-rata cost sharing participation, including any past costs recovered via the nuclear cost recovery clause, in conjunction with joint ownership discussions. The purpose of my comments were to ensure that the PEF ratepayers are adequately protected and will not pay more than their fair share of costs associated with the Levy 1 and 2 nuclear generating units.

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within five (5) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

Appendix II-2
Department of Community Affairs Agency Report



STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

CHARLIE CRIST
Governor

THOMAS G. PELHAM
Secretary

December 16, 2008

Mr. Mike Halpin, P.E.
Program Administrator
Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Final Agency Report, Progress Energy Florida Application for Site Certification of Levy Nuclear Plant Units 1 and 2

Dear Mr. Halpin:

Progress Energy Florida has applied for site certification of the Levy Nuclear Plant Units 1 and 2 pursuant to the Florida Electrical Power Plant Siting Act, Sections 403.501-403.518, Florida Statutes. This letter serves as the Final Agency Report by the Department of Community Affairs (Department) in the review of the proposed power plant and its associated facilities.

The application to certify construction and operation of a 2200-megawatt nuclear electrical generating facility was filed on June 2, 2008. The two generating units will be located in Levy County (County) on an approximately 3,105 acre site that has not been previously certified for power generation. The project site is located about seven miles inland from the Gulf of Mexico and eighty miles north of the company's Crystal River Energy Complex in Citrus County. The proposed site is designated as Public on the Future Land Use Map of the County Comprehensive Plan. This designation was adopted by the County on March 18, 2008 and found in compliance by the Department at that time. The land use category allows for public utilities such as power generating facilities.

It is our understanding from the Siting Coordination Office (email, dated June 19, 2008) that the U.S. Nuclear Regulatory Commission (NRC) exercises authority over the licensing and operation of nuclear reactors through applicable federal regulations (Title 10, Code of Federal Regulations, Parts 26, 50, 51, 52, 54 and 100). In part, their review and oversight includes:

- 1) characteristics of the site, including surrounding population, seismology, meteorology, geology and hydrology;
- 2) design of the nuclear plant;
- 3) anticipated response of the plant to hypothetical accidents;
- 4) plant operations including the applicant's technical qualifications to operate the plant;

2555 SHUMARD OAK BOULEVARD ♦ TALLAHASSEE, FL 32399-2100
850-488-8466 (p) ♦ 850-921-0781 (f) ♦ Website: www.dca.state.fl.us

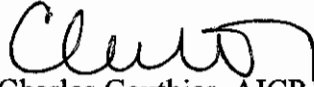
♦ COMMUNITY PLANNING 850-488-2356 (p) 850-488-3309 (f) ♦ FLORIDA COMMUNITIES TRUST 850-922-2207 (p) 850-921-1747 (f) ♦
♦ HOUSING AND COMMUNITY DEVELOPMENT 850-488-7956 (p) 850-922-5623 (f) ♦

- 5) discharges from the plant into the environment (i.e., radiological effluents); and
- 6) emergency plans.

In consideration of the regulatory role designated to the NRC in the situation of nuclear facilities, the Department has not identified any issues with respect to this project as it is currently proposed. We do encourage the applicant to coordinate with local governments, Regional Planning Councils and state agencies, particularly the Department, and Division of Emergency Management to address emergency management aspects of this proposed project.

If you have any questions regarding this report, please contact Dr. Barbara Lenczewski at (850) 922-1786, or email barbara.lenczewski@dca.state.fl.us.

Sincerely,



Charles Gauthier, AICP, Director
Division of Community Planning

CG/bl

cc: Michael Moehlman, Executive Director, Withlacoochee Regional Planning Council
Shenley Neely, Planner, Levy County Planning Department

Appendix II-3

Southwest Florida Water Management District Agency Report

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT – AGENCY REPORT

PROGRESS ENERGY FLORIDA, INC. LEVY COUNTY UNITS 1 & 2 SITE CERTIFICATION APPLICATION NO. PA-08-51

STAFF RECOMMENDATION – APPROVAL WITH CONDITIONS

I. PROJECT DESCRIPTION

Progress Energy Florida, Inc. (PEF) proposes to construct and operate a new electrical power generating facility known as the Levy Nuclear Power Plant, Units 1 & 2 (LNP), to be located on a 3,100-acre site in southern Levy County. The proposed LNP will generate approximately 2,200 megawatts (MW) of electrical power which will be distributed through approximately 178 miles of proposed transmission lines in Levy, Citrus, Marion, Sumter, Hernando, Hillsborough, Pinellas and Polk Counties. The plant will use state-of-the-art technology that includes two nominal 1,000 MW nuclear reactor generating units manufactured by Westinghouse Electric Company, LLC. The reactor design is certified by the U.S. Nuclear Regulatory Commission (NRC), and construction and operation of the nuclear reactors must comply with NRC regulations in addition to conditions required for site certification.

This agency report addresses the main site and associated facilities proposed for site certification. The transmission line portion of the application was addressed in a separate District agency report submitted to DEP in August 2008. Associated facilities proposed in the application included construction of a railroad spur, a heavy haul road and a barge slip on the Cross Florida Barge Canal to provide construction access and ongoing material supply access to the LNP site. Proposed to be located in Levy and Marion counties, the railroad spur has since been eliminated by PEF after further determination that rail transport will not be cost effective. The construction of two substations proposed to be located in Sumter and Citrus counties has also been removed from the site certification application and will be addressed through separate permitting applications to the appropriate regulatory agencies at a later date.

Site Description

Situated in the western portion of Levy County, the LNP site is approximately eight miles east of the Gulf of Mexico, three miles north of the Withlacoochee River and near U.S. Highway 19. The area is characterized as a poorly drained, low relief region containing extensive swamps, marches and terraces formed by ancient sea-level high stands. The site lies within the Gulf Coastal Lowlands which are comprised of broad, flat marine erosional plains underlain with karstic limestones covered by thin sand deposits. Extensive site investigation undertaken by PEF revealed no voids located under or immediately adjacent to the proposed nuclear reactor locations. The LNP site

was formerly used for silviculture and has been impacted by many years of timber planting and harvesting. No streams or ephemeral ditches are identifiable onsite. Pockets of shallow wetlands collect runoff that may discharge as sheet flow during wet periods. There are approximately 1,185 acres of wetlands on the site. Nearby surface waters are designated as Class III freshwater except for the lower reaches of the Withlacoochee River, which are designated both as Class II waters and Outstanding Florida Waters.

Proposed Water Use

The LNP will require water for plant cooling and operational uses. Most of the water to be used at the LNP site will be needed for steam condenser cooling which will take place in two cooling towers; one for each unit. The source for cooling tower makeup water will be surface water withdrawn from the nearby Cross Florida Barge Canal. Approximately 120 million gallons per day (mgd) will be withdrawn from the canal for cooling tower needs. A new intake structure will be constructed on the canal at a site south of the LNP site and downstream from the Inglis Lock. Canal waters from downstream of the Lock to the Gulf are predominately saline. PEF advises that the waters in the canal downstream of the Inglis Lock vary in salinity both seasonally and with tidal influences; however, when the intake is operational, it is anticipated that the makeup waters to the cooling towers will be drawn from shallow nearshore Gulf of Mexico waters. The canal intake structure will withdraw surface water through four 54-inch diameter intake pipelines (two for each nuclear unit) that will convey water to cooling tower basins for use within the cooling towers. Two additional 54-inch diameter pipes will convey discharged cooling water approximately 13 miles to PEF's existing Crystal River Energy Complex discharge canal. Flows will be combined with flows released from the Crystal River Energy Complex and discharged to the Gulf of Mexico. Supply and discharge pipelines will generally be buried to a minimum depth of five feet. Pipelines will cross over the Inglis Lock Bypass Canal on an approximately 33-ft.-wide utility bridge and will cross beneath the Barge Canal bottom.

PEF also proposes to develop an onsite fresh water system that will be supplied by Floridan aquifer groundwater withdrawn from four supply wells. Groundwater will be used for plant operations, fire suppression, potable water needs and demineralized water needs. Demineralized water is processed to remove ionic impurities and dissolved oxygen and is used for plant operations that require pure water. PEF anticipates that when operational, the LNP site will supply potable water to approximately 800 employees and visitors daily. During the construction stage, potable water will be needed for up to 3,500 people anticipated to be onsite. The fire protection system will provide water to points throughout the plant where wet system fire suppression may be required. The fire suppression system is designed to supply water at a flow rate and pressure sufficient to satisfy the demand of automatic sprinkler systems and fire hoses for a minimum of 2 hours. PEF proposes to withdraw 1.58 mgd on an annual average basis and a maximum daily withdrawal of 5.8 mgd for these uses.

Wastewater (backwash and blowdown) from reactor and plant operations will be treated and discharged to the cooling tower basins for reuse within the cooling towers. Treated sanitary wastewater will also be discharged to the cooling water basins for reuse in the cooling towers. Stormwater from onsite impervious areas will be treated to comply with state water quality regulations and will be managed and discharged in accordance with environmental resource permitting requirements.

The extent of significant construction-related dewatering necessary for the 75-foot deep foundations needed for the nuclear reactors will be determined after design specifications are finalized. PEF proposes to install an impervious diaphragm wall around and below the foundation excavations, to minimize water flow into the construction site. It is anticipated that dewatering at each unit could last as much as two years. Additional construction dewatering will also be necessary in some locations for installation of the pipelines and other linear facilities. Construction-related dewatering activities will be approved by DEP and the District on a post-certification basis after final construction designs are submitted.

Application Review

The LNP site certification application was submitted to DEP on June 2, 2008. District staff submitted comments on the completeness of the main site and associated facilities portion of the application on July 2, 2008. District staff determined that the application as submitted was incomplete for purposes of determining consistency with District substantive permitting requirements. Information requested by the District included additional data supporting the groundwater drawdown impact modeling submitted in support of the application, further analyses of cumulative impacts, additional aquifer transmissivity data, further assessment of environmental impacts to surrounding water resources, exploration of alternative water use, assessment of withdrawal impacts on water quality of the barge canal and associated issues, plans for addressing dewatering activities, water conservation methods and potential impacts to nearby water supply sources such as Lake Rousseau. On July 14, 2008, DEP issued its determination that the application was not complete.

PEF submitted additional information in August 2008. Following meetings involving District staff, PEF and PEF's consultants, modifications were made to the modeling studies. The wellfield initially proposed to be located in the northeast portion of the site, near Goethe State Forest, was relocated to avoid and minimize potential impacts to surface waters, wetlands and adjacent users. PEF now proposes to locate the groundwater wells further south and has submitted additional modeling addressing the relocated wellfield. To ensure sufficient time to address all issues, the District sought an extension of time to submit a second completeness determination, which was granted and extended to September 3, 2008. However, due to issues remaining for the District and other agencies, upon motion by DEP and PEF, reviewing agencies were granted an extension of time to October 28, 2008 to submit their completeness determination, and DEP's deadline for a second completeness determination was extended to October 30, 2008. District staff has determined that the application is now complete for purposes of

determining appropriate conditions. The District's completeness determination is based upon negotiated conditions that require post-certification submittal of further confirming studies, ongoing environmental monitoring, continued groundwater modeling and impact analysis and assessment and implementation of alternative water supplies, to ensure no adverse impacts will occur and that the water resource will be appropriately conserved and protected over the life of the facility. The District's agency report, including proposed conditions for certification, must be submitted to DEP by December 17, 2008.

II. PROPOSED WATER USE

Following review and discussion with the applicant, District staff recommends authorization for an annual average total of 1.58 mgd of Floridan aquifer groundwater and 5.8 mgd for maximum daily use for process and potable water needs, provided the conditions attached hereto and incorporated herein are applicable to the certification order. To confirm that water use associated with plant operations does not cause adverse environmental impacts, conditions proposed by staff include requiring the development and implementation of an environmental monitoring plan to evaluate the relative condition of surface waters and wetlands in areas potentially affected by ground water withdrawals. Monitoring will continue for a minimum of five years after groundwater withdrawals reach 1.25 mgd on an annual average basis. Annual monitoring summaries will be submitted. If, after five years, monitoring demonstrates that no adverse impacts are occurring or predicted, PEF may request that monitoring be discontinued. Conditions also require PEF to investigate the feasibility of developing alternative water supply projects to offset groundwater use. The conditions are structured to require that if ongoing environmental monitoring, aquifer performance testing or groundwater modeling predict or detect adverse environmental impacts, PEF will be required to either mitigate the adverse impacts or implement an approved alternative water supply project.

To confirm Upper Floridan aquifer transmissivity and leakage values used in the groundwater flow model supporting the application, staff is requiring that an aquifer performance testing plan be submitted, approved by the District and implemented within a specified timeframe. Required aquifer performance testing will include step-drawdown tests of all groundwater wells and a multi-well constant-rate test to be performed on two of the wells after all wells are fully developed. If values derived from actual well tests differ significantly from values determined through earlier modeling, PEF will revise its groundwater model to incorporate the aquifer test results and undertake further modeling. Updated modeling results will be used to help determine whether alternative water supply efforts should be implemented. Conditions also require PEF to develop a water conservation plan and a timetable for implementing technically and economically feasible water-conserving measures.

Proposed conditions also address ongoing monitoring and compliance by requiring a full compliance report every five years, to demonstrate continued reasonable assurance that the water use is meeting all of the applicable substantive water use requirements

set forth in District rules. Groundwater withdrawals will be metered and reported to the District on a monthly basis. Periodic water quality sampling will be implemented to ensure no adverse impacts to water quality. Other standard conditions relating to well construction, mitigation of any adverse impacts to existing legal users or offsite land uses and information reporting are also included.

III. SURFACE WATER MANAGEMENT SYSTEM

Issues and impacts associated with the construction or alteration of surface water management systems as part of this project are being reviewed by DEP. District staff did not include recommendations in this regard.

IV. REGIONAL WATER SUPPLY

The District has not prepared a Regional Water Supply Plan for counties in the Northern Planning Area of the District, which includes Levy County. This is due to the general lack of existing regional impacts to water resources. However, there are smaller scale cumulative effects of withdrawals throughout the region and areas where the rate of growth has accelerated beyond what was previously anticipated to occur that could impact water resources through future ground-water withdrawals. The proposed LNP is not located within an accelerated growth area. Ongoing water supply planning activities in the Northern Planning Area include: 1) comprehensive water supply planning conducted cooperatively by Marion County, the Withlacoochee Regional Water Supply Authority, the District, and the St. John's River Water Management District (SJRWMD); 2) extensive resource assessments involving the District, the SJRWMD, and the U.S. Geological Survey; 3) an aggressive program to establish minimum flows and levels; 4) the development of a sophisticated ground-water flow model that will be used to determine safe yield; and 5) programs to provide funding and technical assistance for the development of conservation and reclaimed water projects and conservation education programs. Based on the fact that most of the water to be used at the LNP site will be withdrawn from the Cross Florida Barge Canal, which is not a current or planned source of potable water for the region, and that the amount of groundwater to be used will be limited to approximately 1.58 mgd on an annual average basis, District staff anticipates that the regional water supply is adequate to support this use as well as other projects currently planned in the region. The proposed water use does not conflict with or otherwise impact the anticipated plans and water uses proposed by the Withlacoochee River Water Supply Authority.

IV. VARIANCE, EXCEPTION OR EXEMPTIONS

Staff has not identified any District nonprocedural requirements for which a variance, exemption or exception is necessary in order for the proposed main site and associated facilities to be certified.

IV. STAFF RECOMMENDATION

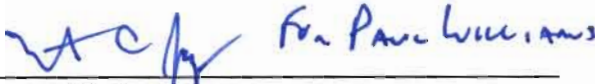
Staff has determined that this project will meet District substantive requirements for authorized water use, provided that the attached conditions are included in the conditions for certification for the main site and associated facilities. Staff recommends approval and submittal of this agency report to DEP.

REPORT AND CONDITIONS PREPARED BY:



Bobby Lue
Director
Brooksville Regulation Department

Date: 12/16/08



Paul Williams, P.G.
Water Use Manager
Brooksville Regulation Department

Date: 12/16/08



Leonard F. Bartos, P.W.S.
Environmental Regulation Manager
Brooksville Regulation Department

Date: 12/16/08

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
AGENCY REPORT – RECOMMENDED CONDITIONS OF CERTIFICATION
PROGRESS ENERGY FLORIDA, INC. – LEVY COUNTY UNITS 1 & 2
SITE CERTIFICATION APPLICATION NO. PA-08-51**

GROUNDWATER WITHDRAWAL QUANTITIES AND FACILITIES

<u>District ID/ Owner ID</u>	<u>Water Allocation Average Gallons per Day</u>	<u>Well Casing/Depth Feet</u>	<u>STATUS</u>
<u>1/PW-1</u>	<u>395,000</u>	<u>100/300</u>	<u>PROPOSED</u>
<u>2/PW-2</u>	<u>395,000</u>	<u>100/300</u>	<u>PROPOSED</u>
<u>3/PW-3</u>	<u>395,000</u>	<u>100/300</u>	<u>PROPOSED</u>
<u>4/PW-4</u>	<u>395,000</u>	<u>100/300</u>	<u>PROPOSED</u>
<u>TOTAL ALL WELLS</u>	<u>1,580,000</u>		

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., District Basis of Review (BOR) Sections 3.2, 3.4, 4.1, 4.4, 4.8, 4.10

A. SPECIAL CONDITIONS:

All conditions referring to the District shall mean the

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34604-6899

The term, "Licensee" as used herein, shall refer to Florida Power Corporation dba Progress Energy Florida, Inc.

The conditions of certification as used herein refer to Conditions of Certification proposed for Site Certification Application No. PA-08-51.

SUBMIT REPORTS / DATA

1. All reports and data required by these conditions of certification shall be submitted to the District according to the due dates contained in the specific condition. If the report or data is received on or before the tenth day of the month following data collection, it shall be deemed as a timely submittal. The Licensee may use the District's website to submit data, plans or reports online. To set up an account, the Licensee can address the request to permitdata@watermatters.org. All mailed reports and data are to be sent to:

Permit Data Section, Regulation Performance Management Department
Southwest Florida Water Management District
2379 Broad Street

Brooksville, Florida 34604-6899

Submission of plans and reports: Unless submitted online or otherwise indicated in the special condition, the original and two copies of each plan and report required herein.

Submission of data: Unless submitted online or otherwise indicated in the special condition, an original (no copies) is required for data submittals such as meter readings and/or pumpage, rainfall, water level, evapotranspiration, or water quality data

2. Within sixty (60) days, the Licensee shall designate one individual responsible for receiving and responding to District notices and correspondence related to these conditions of certification. Notification to the District of the designee, including address and telephone number shall be in written form.

Citation: Sections 373.016, 373.219, 373.236, F.S.; Rules 40D-2.301(1) and 40D-2.381(1), (2) and (4), F.A.C.; BOR Section 6.2

ENVIRONMENTAL IMPACTS, MONITORING AND MITIGATION

3. Environmental Assessment

A. Environmental Monitoring Plan

Licensee shall submit an Environmental Monitoring Plan for District review and approval within 90 days of conditions of certification issuance. The monitoring plan, at a minimum shall utilize the District's Wetland Assessment Procedure to evaluate the relative condition of surface waters and wetlands in areas potentially affected by water withdrawals of Licensee. Upon District approval, the plan shall be implemented and monitoring reports shall be provided in the annual monitoring report required by Condition No. 3 E. After five years of monitoring following groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee may request the District release the Licensee from monitoring. If the District concurs with the request, the District will request DEP modify the conditions of certification to remove the monitoring condition.

B. Data Collection

Licensee shall maintain and monitor the environmental monitoring sites included in the approved monitoring plan. Water levels for monitor wells staff gauges, and piezometers for the sites included in the monitoring plan shall be referenced to National Geodetic Vertical Datum (NGVD) and reported in a form acceptable to the District by the 10th day of each month for the preceding month. The time and date that the elevation is taken shall be included. Any changes to the methods or frequency of monitoring for any of these data collection programs must be approved by the District.

C. Staff Gauges

Licensee shall install and thereafter maintain District-approved staff gauges and shall report measurements of water levels, as indicated in the monitoring plan. Water levels shall be recorded and reported to the District on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the monitoring plan. The frequency of recording may be modified by the District as necessary to ensure protection of the resource.

D. Monitoring Wells and Piezometers

Licensee shall monitor water levels in the monitor wells and piezometers as specified in the monitoring plan. Reports of the data shall be submitted to the District in a form acceptable to the District. All data shall be referenced to NGVD. The frequency of water-level recording may be modified by the District as necessary to ensure the protection of the resource.

E. Annual Environmental Monitoring Reports

Licensee shall submit an annual environmental monitoring data summary by January 1st of each year for the preceding water year (October 1 - September 30). The Annual Monitoring Report shall include all raw data, essential graphs, tables, and text. Monitoring progress at each site shall be summarized in the Annual Monitoring Report, as specified below. Licensee shall submit three copies of the Annual Monitoring Report each year. Interpretive reports of environmental conditions shall incorporate all environmental monitoring sites used. The Annual Monitoring Report shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters in the vicinity of the Levy Nuclear Plant. Pumpage data, wetland, water level data collected from the aquifer and for the region, and environmental parameters collected at the monitoring sites and in the region (SWFWMD data shall be used for information of the region) shall be used for the report results. Statistical trend analysis, such as double-mass curve analysis, multiple linear regression, time series analysis and/or factor analysis shall be performed to analyze the interactions of rainfall and pumpage on surficial water levels, potentiometric levels in the semi-confined aquifers, surface waters, and wetland water levels, rate of soil subsidence, and evidence of vegetational succession. Data shall be obtained through field measurements and aerial photo interpretation. A brief summary of any recommended changes to the monitoring requirements shall be provided. Upon review of those recommended changes, SWFWMD may approve changes to the monitoring requirements under the approved Environmental Monitoring Plan.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), 2.381(4), F.A.C.; BOR Sections 1.5, 4.2, 5.8

ALTERNATIVE WATER SUPPLY IMPLEMENTATION

4. The Licensee shall investigate the development of one or more alternative water supply projects to supply the water supply demands to offset all or a portion of the groundwater allocated by these conditions of certification. Alternative water supplies include seawater desalination, brackish surface or ground water, water that has been reclaimed after one or more uses, stormwater, and any other water supply source designated as non-traditional. If adverse impacts are detected or predicted through the Environmental Monitoring as specified in Condition 3 or through aquifer performance testing or groundwater modeling as specified in Conditions 5 and 6 below, Licensee shall either mitigate such adverse impacts in accordance with a plan submitted by the Licensee and approved by the District or, by selecting and implement an Alternate Water Supply project in accordance with the following schedule.

- A. Within 3 years of completion of site aquifer testing specified in condition 5, the Licensee shall submit for District approval, an Alternative Water Supply Plan. The Alternative Water Supply Plan shall evaluate, identify, and propose alternative water supply development of one million five hundred eighty thousand (1,580,000) gallons per day (gpd).
- B. Within 4 years of completion of site aquifer testing and modeling specified in condition 5, Licensee shall submit to the District, a preliminary design of the approved alternative water supply project that the Licensee will implement.

- C. Within 3 years of groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall provide an analysis of environmental conditions as specified in Condition 3 above. The Licensee may ask for a time extension or waiver for implementing the Alternate Water Supply project if the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. The Alternate Water Supply project schedule shall be maintained unless the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. If adverse environmental impacts are occurring or are predicted to occur, the Alternative Water Supply quantity required to be developed will be determined based upon a revised hydrogeologic evaluation performed by the Licensee and accepted by the District.
- D. With 4 years of completion of site aquifer testing specified in condition 5, submit to the Florida Department of Environmental Protection and the District, applications for authorization to develop and use 1,580,000 gpd of alternative water sources for the project as appropriate, unless an extension of time or waiver has been granted by the District.
- E. Within 4 years of completion of site aquifer testing specified in condition 5, submit to the District an alternative water supply implementation schedule detailing the dates when construction will begin and end, and the date when water will be delivered from the project for use by the Licensee.
- F. Compliance with the Alternative Water Supply Implementation Schedule is required by the Licensee, unless extended or otherwise modified in writing by the District. Each year, by March 1, after the triggers described above, the Licensee shall submit to the District a status report describing the progress made on the Alternative Water Supply Implementation Schedule, including the specific actions taken to meet the requirements set forth above. If the project has fallen behind schedule, Licensee shall provide just cause for the delay and/or explain how the Licensee will comply with the schedule described herein.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Section 3.1(pending amendment)

AQUIFER TESTING AND GROUNDWATER IMPACT ANALYSIS

- 5. For the purpose of confirming Upper Floridan transmissivity and leakance values used in Licensee's groundwater flow model, a step-drawdown test shall be performed on the production wells. A multi-well constant-rate test shall be performed on two of the following production wells: District ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, after the wells have been fully developed. Constant-rate multi-well test locations will be based on step-drawdown tests, water quality, and other data submitted to the District prior to the multi-well constant-rate site selections. The constant-rate tests shall be performed in accordance with the specifications in an Aquifer Performance Testing (APT) Plan submitted to and approved by the District. The APT Plan shall be submitted to the District within 90 days of the approval of the conditions of certification. The step-drawdown and constant-rate tests shall be conducted by the Licensee within 6 months of construction of the wells included in the APT Plan and prior to the use of any of the wells for production purposes. All recorded raw data and a full report analyzing the data shall be submitted to the District within ninety (90) days of completion of all the tests.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Sections 1.5, 4.2, 4.5, 4.6, 4.8, 4.13

- 6. If any of the transmissivity or leakance values derived from either the step-drawdown or the multi-well constant-rate tests referenced in condition 5 above, differ significantly from the values used in

the groundwater flow model submitted as part of Licensee's application, the Licensee will revise its submitted Focused Telescoping Mesh Refinement groundwater model of the wellfield area based on the results of the aquifer tests described in Condition No. 5 above. Significantly different transmissivity or leakance values shall mean any well having either a leakance or transmissivity value twenty (20) percent higher or lower than those included in the Licensee's submitted groundwater flow model. The revised model will include wellfield-specific Upper Floridan aquifer transmissivity or leakance values and properties derived from well drilling and the aquifer tests described in Condition no. 5. The modeling parameters, including but not limited to the following: surficial aquifer transmissivity/hydraulic conductivity and thickness, Upper Floridan aquifer thickness and transmissivity/hydraulic conductivity, measured groundwater levels (NGVD) and gradients, aquifer leakage, and aquifer boundary conditions, may require revision to reasonably represent aquifer conditions. The revised model must also reflect a groundwater impact analysis including cumulative and incremental analysis to evaluate the pumping effects on other water users, and other analysis to confirm that the withdrawal meets the District's conditions of issuance for water-use permits. If required, all groundwater modeling and a full report, meeting District modeling guidelines, shall be submitted to the District within one-hundred eighty (180) days of completion of the aquifer tests described in Condition No. 5 above. Upon acceptance of the report by the District, the Licensee will complete any required Alternative Water Supply Implementation Plans as specified above.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), (4); BOR sections 4.2, 5.4, 5.5, 5.6, 5.7

COMPLIANCE REPORTING

7. The Licensee shall submit a compliance report beginning the fifth year after groundwater use rising to at least 1.25 million gallons per day (average annual daily withdrawal quantity) and at 5 year intervals thereafter. The report must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and the District's Water Use Permit Information Manual Part B, Basis of Review. The compliance report shall include:
 - A. Information documenting water demands and updated demand projections demonstrating that allocations from all sources in the conditions of certification will continue to be needed for the remainder of the conditions of certification duration;
 - B. Documentation verifying that the sources are capable of supplying the needs authorized by these conditions of certification without causing harm to water and water-related resources;
 - C. Documentation verifying that the use of water is efficient and that the Licensee is implementing all feasible water conservation measures;
 - D. An updated ground water modeling analysis and data analysis demonstrating that the use of groundwater does not interfere with legal uses existing at the time of issuance of the conditions of certification;
 - E. An updated ground water modeling analysis, along with statistical analyses of water-level and wetland monitoring data, demonstrating that the use does not cause adverse impacts to wetlands, and surface waters, or violations of MFLs;
 - F. Documentation that ground water withdrawals by the Licensee are not causing or contributing to significant water quality deterioration, including but not limited to review and statistical analyses of groundwater level and water quality data collected by the Licensee under these conditions of certification;

- G. Information demonstrating that the lowest quality source of water is being used to meet the water demands.

Following review of this report and as requested by the District, DEP may modify the conditions of certification to ensure that the use continues to meet the substantive conditions for the consumptive use of water as set forth in Section 373.223, F.S., and Chapter 40D-2, F.A.C.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4), F.A.C.

PUMPAGE REPORTING

8. Licensee shall meter withdrawals and record meter readings from each withdrawal point and water supply line on a monthly basis within the last week of the month. The meter readings shall be reported to the District on or before the tenth day of the following month. If a metered withdrawal is not utilized during a given month, the meter report shall be submitted to the District indicating the same meter reading as was submitted the previous month.

Licensee shall install meters on District ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, within 90 days of completion of construction of the withdrawal facilities.

All meters shall adhere to the following descriptions and shall be installed and maintained as follows:

- A. All meters shall be non-resettable, totalizing flow meters that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring devices or alternative accounting or reporting methods are proposed, prior to installation, the Licensee shall submit documentation that the other measuring devices or accounting methods meet the accuracy requirement provided below. If the alternative accounting method involves a meter belonging to another entity or to an alternative water supply provider, the Licensee shall submit documentation from the owner/supplier that the meter readings conform to these meter requirements. Such documentation is subject to approval by the District. Approval for other measuring devices, accounting methods, or reporting methods must be obtained in writing from the Brooksville Regulation Department Director.
1. The flow meter(s) or other approved flow-measuring device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.
 2. Accuracy testing requirements:
 - a. For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.
 - b. The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of the permit
 - c. The testing frequency will be decreased if the Licensee demonstrates to the satisfaction of the District that a longer period of time for testing is warranted.
 - d. The test will be accepted by the District only if performed by a person certified on the test equipment used as described in the section entitled Flow Meter Verification, below.
 - e. If the actual flow is found to be greater than 5% different from the measured flow, within 30 days the Licensee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.

- B. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line. Existing systems that would require retrofitting to achieve the above standards will not be required to retrofit provided it is documented on the Meter Accuracy Verification Form, Form No. LEG-R.014.00 (07/08) that the flow meter is accurately and reliably measuring flow over different flow ranges or for the permanent operating flow.
- C. If a metered withdrawal point, AWS inflow line or re-pump withdrawal point is not utilized during a given month, the meter report shall be submitted to the District showing the same meter reading that was submitted the previous month.
- D. Broken or malfunctioning meter:
- If the meter or other flow-measuring device malfunctions or breaks, the Licensee shall:
1. Notify the District within 15 days of discovering the malfunction or breakage;
 2. Replace the broken or malfunctioning meter with a repaired or new meter, subject to the specifications given above, within 30 days of the discovery; and
 3. Submit estimates of their pumpage as described below.
- If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, the withdrawal point shall not lack a fully functioning meter for more than 60 consecutive days.
- E. While the meter is not functioning correctly, the Licensee shall document the total amount of time in minutes that the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on District scanning forms and noted as estimated per instructions on the form. If the data are submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.
- F. In the event a new meter is installed to replace a broken meter, the meter and its installation shall meet the specifications of the District. The Licensee shall notify the District of the replacement with the first submittal of meter readings from the new meter.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1),(3), 40D-2.381(1), (4); F.A.C.; BOR 5.1, 6.2

DISTRIBUTION FLEXIBILITY

9. The average day, peak monthly, and maximum daily, if applicable, quantities for District ID No(s) **1, 2, 3, 4**, Licensee ID No(s). **PW-1, PW-2, PW-3, PW-4**. shown above in the production withdrawal table are estimates based on projected distribution of pumpage, and are for water use inventory and impact analysis purposes. The quantities listed in the table for these individual sources are not intended to dictate the distribution of pumpage from the withdrawal sources. The Licensee may make adjustments in pumpage distribution as necessary up to **125 percent** on an average basis, up to **125 percent** on a peak monthly basis, so long as adverse environmental impacts do not result and other conditions of this

certification are complied with. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., BOR sections 3.2, 3.4, 4.1

WATER QUALITY SAMPLING

10. Water quality samples shall be collected and analyzed for parameters and at the frequencies specified below. Water quality samples from production wells shall be collected from all wells, unless infeasible. If sampling is infeasible, Licensee shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the Brooksville Regulation Department Director. Reports of the analyses shall be submitted to the Permit Data Section, Regulation Performance Management Department, (using District forms) on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory which undertook the analysis. The parameters and frequencies of sampling and analyses may be modified by the Brooksville Regulation Department Director, as necessary to ensure the protection of the resource.

<u>District</u> <u>ID No.</u>	<u>Licensee</u> <u>ID No.</u>	<u>Minimum Pumping</u> <u>Time (minutes)</u>	<u>Parameter</u>	<u>Sampling Frequency</u>
1	PW-1	20 minutes	Chlorides,	February, May,
2	PW-2	20 minutes	Sulfates, and	August and November
3	PW-3	20 minutes	T.D.S.	
4	PW-4	20 minutes		

Water quality samples shall be collected quarterly and on the same week of the months specified.

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

11. Water quality samples from monitor wells shall be collected and analyzed for the District ID No., parameter(s), and frequency(ies) specified in the table below. Water quality samples shall be collected after pumping the monitor wells(s) to a constant temperature, pH, and conductivity. Sampling method(s) shall be designed to collect water quality samples that are chemically representative of the zone to be sampled. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". The Permittee's sampling procedure(s) shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. A report describing the sampling and chain of custody procedures shall be

included with the first data submitted after the date this permit is granted, and upon any change in sampling and/or analytical method(s). Any variance in sampling and/or analytical methods shall have prior approval of the District. Reports of the analyses shall be submitted to the District on District forms on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory that undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the District as necessary to ensure the protection of the resource.

<u>District ID No.</u>	<u>Licensee ID No.</u>	<u>Parameter</u>	<u>Sample Frequency</u>
5	TBD	Chlorides,	May, September
6	TBD	Sulfates, and TDS	
7	TBD		
8	TBD		
9	TBD		
10	TBD		

Water quality samples shall be collected based on the following timetable:

Semi-annually Same week of months specified

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

12. The District with DEP's concurrence, reserves the right to set chloride, sulfate or TDS concentration limits on any production well in the future to prevent long-term upward trends or other significant water quality changes from occurring, based on data collected and after a sufficient data base has been established to determine limits. These limits shall be required after discussions with the Licensee. At such time as the concentration in any water sample reaches or exceeds the designated concentration limits, the Licensee shall take appropriate action to reduce concentrations to below those set for the particular well. If the District determines that long-term upward trends or other significant water quality changes are occurring, the District may consult with FDEP to reconsider the quantities included in these conditions of certification.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

13. During drilling of District ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, water quality samples shall be collected at intervals of the change of drill rod or 30 feet, whichever is less, from 150 feet to a maximum depth of five feet above the bottom of the well when drilling on reverse air. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling, or other appropriate method with prior approval by the District.

Samples shall be analyzed by a certified laboratory for Chloride, Sulfate, and Specific Conductivity. Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Reports of the analyses shall be

submitted to the Permit Data Section, Regulation Performance Management Department (using District forms) within thirty days of sampling, and shall include the signature of an authorized representative and the certification number of the Florida Department of Health certified laboratory utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories".

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or by Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

14. Monthly water levels for monitor wells for the sites included in the table below shall be referenced to NGVD, and reported in a form acceptable to the District by the **tenth** day of each month for the preceding month. The time and date that the elevation is taken shall be included. Changes to the methodology, extent, or frequency of monitoring at any of these sites may be modified by the District, as necessary to ensure the protection of the resources.

<u>District ID No.</u>	<u>Licensee Site No.</u>
5	TBD
6	TBD
7	TBD
8	TBD
9	TBD
10	TBD

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

WELLS

15. Well construction permits shall be obtained from the District by the Licensee for all wells to be constructed for this project. Well construction shall conform to requirements set forth in District and DEP rules for well construction.

Citation: Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.041, F.A.C.; WUP BOR 6.2

16. Wells not in use with no installed pumping equipment shall be capped or valved in a water tight manner in accordance with Rule 62-532.500(3)(a)(4), F.A.C.

Citation: Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.037, 40D-3.041, 40D-3.521, 62-532.500, F.A.C.

17. Within 90 days of the completion of each proposed well, Licensee shall submit to the District specific capacity (well testing) information from any test performed by the Water Well Contractor or pump installer on the well. This information shall include:

A. Static water level before pumping

- B. Duration of test pumping
- C. Gallons per minute pumped
- D. Final water level measured during pumping

If step-drawdown tests were performed, the information listed above shall be submitted for each step. A report analyzing the results shall be presented.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.

18. Within 90 days of construction, Licensee shall submit to the Permit Data Section, Regulation Performance Management Department, the specific locations of District ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, on an original blue line aerial with a minimum scale of one inch equals 800 feet, or by latitude/longitude. Intake and mainline diameters for each of the above pumps shall be reported at the time of location reporting.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.

19. Within one year of conditions of certification issuance, Licensee shall develop and implement a Water Conservation Plan (Plan) that includes practices currently employed or planned. For planned components, include an estimated time-frame for implementation for each. The Plan must indicate that technically and economically feasible water conservation opportunities have been or will be employed.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 3.4 (pending amendment)

20. The lowest quality water source, including reclaimed water, surface water and stormwater, must be used for each consumptive use authorized by these conditions of certification when available, except when Licensee demonstrates that the use of the lower quality water source is determined to be not economically, environmentally, or technologically feasible, in accordance with the District's Water Use Permit Information Manual Part B, Basis of Review, Sections 4.4 and 4.11.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 4.4, 4.11

21. Wetlands and other surface waters may not be adversely impacted as a result of the water use authorized by these conditions of certification. If unacceptable adverse impacts occur, the District will request that DEP modify the conditions of certification to curtail or abate the unacceptable adverse impacts, unless the impacts can be mitigated by Licensee.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 2.8, 4.2, 4.13, 6.2

22. A construction dewatering plan shall be provided to the District, for approval 6 months prior to the conduct of the dewatering. This plan shall include the details of the dewatering system, discharge quantities and location, a monitoring plan, and other details as appropriate to demonstrate that the dewatering plans meet the District's Conditions of Issuance as included in 40D-2.301 and comply with all applicable Environmental Resource Permit construction dewatering requirements.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Sections 3.5, 5.4, 5.5

B. STANDARD CONDITIONS:

Licensee shall comply with the following Standard Conditions:

1. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if Licensee fails to comply with all of the provisions of Chapter 373, F.S., Chapter 40D, or the conditions set forth herein, the District shall seek revocation of any conditions of certification.
2. These conditions of certification are imposed based on information provided by Licensee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the term of this certification, it is determined by the District that the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the District shall seek modification these conditions of certification or revocation of the certification authorized by DEP.
3. Licensee shall not deviate from any of the District- imposed conditions of this certification without written approval by the District.
4. In the event the District declares that a Water Shortage exists pursuant to Chapter 40D-21, Licensee agrees that portions of these conditions of certification shall be modified, or declared inactive as necessary to address the water shortage.
5. The District shall collect water samples from any withdrawal point listed in these conditions of certification or shall require Licensee to submit water samples when the District determines there is a potential for adverse impacts to water quality.
6. Licensee shall provide access to an authorized District representative to enter the property at any reasonable time to inspect the facility and make environmental or hydrologic assessments. Licensee shall either accompany District staff onto the property or make provision for access onto the property.
7. Licensee shall cease or reduce any surface water withdrawals as directed by the District if water levels in surface water fall below applicable minimum water level established in Chapter 40D-8 or rates of flow in streams fall below the minimum levels established in Chapter 40D-8.
8. Licensee shall cease or reduce withdrawals if water levels in aquifers fall below the minimum levels established by the District.
9. Licensee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the District adopts specific conservation requirements for Licensee's water use classification, these conditions of certification shall be modified accordingly.
10. The District may establish special regulations for Water Use Caution Areas. At such time as the Governing Board adopts such provisions, these conditions of certification shall be subject to them upon notice and after a reasonable period for compliance.
11. Licensee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, Licensee shall be required to mitigate the impacts. Adverse impacts include:
 - A. A reduction in water levels which impairs the ability of the well to produce water;
 - B. Significant reduction in levels or flows in water bodies such as lakes, impoundments,

- wetlands, springs, streams or other watercourses; or
 - C. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer water body.
- 12. Licensee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the Licensee shall be required to mitigate the impacts. Adverse impacts include:
 - A. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses;
 - B. Sinkholes or subsidence caused by reduction in water levels;
 - C. Damage to crops and other vegetation causing financial harm to the owner; and
 - D. Damage to the habitat of endangered or threatened species.
- 13. When necessary to analyze impacts to the water resource or existing users, Licensee shall be required to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the District.
- 14. A District identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.
- 15. Licensee shall notify the District within 30 days of the sale or conveyance of permitted water withdrawal facilities or the land on which the facilities are located.
- 16. The annual average daily withdrawal quantity is determined by calculating the total quantity of water to be withdrawn over a one year period, divided by 365 days, which results in a gallons per day (gpd) quantity pursuant to Basis of Review, Section 3.2, Permitted Withdrawal Quantities. This is a running 12-month average, whereby each month the annual average daily quantity is recalculated based on the previous 12-month pumpage.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Section 6.1

Appendix II-4
Levy County Land Use Consistency and Agency Report

**COUNTY COMMISSIONERS
LEVY COUNTY, FLORIDA**



GOVERNMENT
SERVING
CITIZENS

Tony Parker
District 1

Nancy Bell
District 2

Sammy Yearty
District 3

Lilly Rooks
District 4

Danny Stevens
District 5

December 2, 2008

Mr. Mike Halpin
Siting Administrator
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399-2400

**VIA ELECTRONIC MAIL ONLY
HARD COPY WILL NOT FOLLOW**

Re: Site/Transmission Line Certification Application Units 1 & 2
Progress Energy Florida – Levy Nuclear Project
PPSA No. PA08-51/DOAH Case No. 08-2727/DEP Case No. 08-1621

Dear Mr. Halpin:

Levy County has reviewed the portions of the above-referenced application related to the site and associated facilities proposed to be located in Levy County. As a result of its review, and pursuant to Section 403.507, Fla.Stat., the County prepared its Final Agency Report relating to the certification of the proposed site and associated facilities. That report is enclosed with this letter.

If you have any questions or concerns, please do not hesitate to contact me at the number listed above, or Anne Bast Brown, County Attorney, at (352) 486-3389.

Sincerely,

S/

Nancy Bell, Acting Chair
Board of County Commissioners

cc: Attached service list
Enc.

legal/ProgressEnergy/letter.finalreport.site
LR2006-233

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LEVY COUNTY FINAL AGENCY REPORT

In accordance with Section 403.507, Fla.Stat., Levy County (the "County") hereby presents its Final Agency Report related to the certification of the site and associated facilities proposed to be located in Levy County in connection with the application ("Application") filed by Progress Energy Florida, Inc. ("Applicant"), in the administrative proceeding styled Progress Energy Florida - Levy Nuclear Projects 1 & 2, PPSA No. PA08-51, DOAH Case No. 08-2727, DEP Case No. 08-1621. The County represents that there are no County nonprocedural requirements not specifically listed in the Application from which a variance, exemption, exception, or other relief is necessary in order for the proposed site and associated facilities to be certified. The County recommends the approval of the certification of the site and associated facilities proposed to be located in Levy County, subject to the following conditions, which conditions shall be binding on the Applicant, any owner of the site property, or their assigns:

NOTE: References to Exhibits A, B, and C to SE 2-08, are references to those documents which constitute exhibits to a Special Exception submitted by the Applicant for the use of the site for an electrical power generating facility, which Special Exception was approved by the Board of County Commissioners of Levy County, on September 20, 2008. The Special Exception will be referred to herein as "SE 2-08". Exhibits A, B, and C to SE 2-08 are attached to this Final Report in PDF format and are included herein by this reference. The term "Special Exception area" as used in this Final Report means the area described and depicted on Exhibit A of SE 2-08 as the property that is the subject of SE 2-08.

Condition A:

1. At least sixty (60) days prior to any construction activities on the site or any associated facilities, the Applicant shall provide all of the following to the County for its review and approval:

(a) Completed County building permit forms for any structures on the site or for associated facilities that do not consist of facilities of electric utilities as defined in Section 366.02, Fla.Stat., which are directly involved in the generation, transmission, or distribution of electricity, or that are not otherwise exempt from the requirements of the Florida Building Code. For every structure Applicant intends to construct on the site or for associated facilities that Applicant contends is exempt from the Florida Building Code, Applicant shall provide a description of the structure or facility and the basis for the contended exemption.

(b) Copies of all development approvals and permits from all applicable state and federal agencies that are necessary for the particular development activity to be approved by the County, with the exception of the Federal Combined Construction Operating License.

(c) A detailed site plan depicting that all development is contained within the designated Development Areas as shown on Exhibits A and B to SE 2-08 (herein "the Development Areas"), with the exception of fencing, industrial rail spur, temporary uses incidental to the construction of the facility, transmission lines and pipelines, berms, guard houses, water wells, monitoring wells, and internal roads necessary to provide internal access to these listed structures, and is setback a minimum of 1,000 feet from any property boundary where abutting properties are not under the same ownership as the subject property.

(d) A detailed site plan depicting development within the proposed Development Areas, which reflects the areas, locations, sizes, and heights shown on Exhibit B to SE 2-08 and the tables on Exhibit C to SE 2-08, and which reflects any changes to those items shown on such Exhibits B and C to SE 2-08 in building, pavement, and/or structure size or height, relocation of buildings, pavement, and/or structures within the 954 acres of Development Area. Any such changes to Exhibit B and Exhibit C to SE 2-08 depicted on the site plan shall conform to the special exception requirements for electric generating facilities and the notes listed on Exhibit B to SE 2-08, which all shall allow for construction and operation of nuclear electric generating facilities subject to the Florida Electrical Power Plant Siting Act, Section 403.501 through 403.518, Fla.Stat., consisting of two reactor units generating a total electrical load of 3,000 megawatts and the necessary support services and structures required for the construction and operation of such facility including offices, training facilities, rail lines, storage areas, warehousing, first aid facilities, staging areas, parking lots, electrical transmission facilities, cooling towers, retention basins, shooting range, emergency notification equipment, fencing and security facilities, and temporary uses necessary for the construction of such facility including but not limited to concrete and/or asphalt batch plants.

(e) A detailed site plan that depicts that all outdoor lighting will be directional and shall not radiate directly onto adjacent properties not under the same ownership as the subject property. There shall not be any off-site glare to adjacent properties not under the same ownership as the subject property. Applicant shall also include a photometric lighting plan.

(f) A detailed site plan depicting that the maximum structure height does not exceed 250 feet.

(g) A detailed site plan depicting paved pervious parking areas and services areas. Additional pervious parking areas and service drives necessary for internal circulation shall be permitted throughout the Special Exception area.

(h) A detailed site plan of the Special Exception area depicting that the maximum impervious surface does not exceed 20 percent of the total Special Exception area.

(i) An updated traffic study for the site and associated facilities, reflecting projected traffic during construction and operational phases for the site and associated facilities. Such traffic study will be used to calculate the appropriate road impact fees for the site and associated facilities.

2. All documentation and other information submitted in response to Condition A.1. above shall meet all requirements and conditions of SE 2-08, and all applicable provisions of the Levy County Land Development Code and the Florida Building Code, and the requirements of the County Development Department, County Road Department, and County Engineer.

3. After review and approval by the County Development Department, the County Road Department, and the County Engineer, the Applicant will be permitted to perform the development of the site and associated facilities proposed by the documentation provided in Condition A.1. above, as such development has been approved by the County Departments and County Engineer.

4. Any development of the site and associated facilities shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

Supporting State and County Regulations:

Section 125.01(1)(h) and (cc), Fla.Stat.

Chapter 553, Part IV, Fla.Stat.

Florida Building Code

Section 102.2, Florida Building Code

Chapter 50, Levy County Code

Chapter 50, Article VIII, Levy County Code

Section 50-131, Levy County Code

Section 50-132, Levy County Code

Section 50-715, Levy County Code

Section 50-796 through 50-823, Levy County Code

Conditions of SE 2-08, approved by the Board of County Commissioners
September 2, 2008

Condition B: Concurrent with the submittal of the documentation required in Condition A, or concurrent with the requests for inspections or for other services to which fees apply, as the case may be, the Applicant shall pay all of the County's fees for building permits, inspections, and any other fees related to the building permits for structures that are not exempt from the provisions of the Florida Building Code, as provided in Levy County Resolution 2007-24.

Supporting County Regulations:

Sections 1 and 10, Art. VII, Florida Constitution

Sections 125.01(1)(h) and (cc), Fla.Stat.

Section 403.511(4), Fla.Stat.
Chapter 553, Part IV, Fla.Stat.
Florida Building Code
Section 102.2, Florida Building Code
Chapter 50, Levy County Code
Section 50-131, Levy County Code
Levy County Resolution 2007-24

Condition C: Prior to County's approval of the development of the site and associated facilities contemplated in SE 2-08 and Condition A, and prior to construction of any development of the site and associated facilities contemplated by SE 2-08 or in Condition A, the Applicant shall pay all of the County's emergency medical system impact fees and road impact fees for the site and associated facilities in accordance with Chapter 47, Articles III and IV, Levy County Code.

Supporting County Regulations:
Sections 1 and 10, Art. VII, Florida Constitution
Section 403.511(4), Fla.Stat.
Chapter 47, Article III, Levy County Code
Chapter 47, Article IV, Levy County Code

Condition D: Throughout the construction and operation of the site and associated facilities, the following conditions shall be maintained or met:

(a) The use of the site is limited to the construction and operation of not more than two (2) nuclear reactor powered electrical generating plants and associated support structures, accessory structures and uses identified and shown on Exhibit B to SE 2-08. Any other uses shall not be allowed without an amendment to SE 2-08 approved by the Board of County Commissioners of Levy County.

(b) No permanent entrance to the site shall be constructed from CR 40 for the purpose of operational phase work force access. This is not to preclude a roadway to provide access for the construction and maintenance of the site and associated facilities, and of electricity transmission lines and water lines used to convey cooling water pumped from the Cross Florida Barge Canal or return lines pumping water to the Crystal River Discharge Canal, emergency access or similar incidental access uses. This condition does not preclude the temporary use of the heavy haul road for the delivery of heavy equipment or materials for construction of the power plant(s), transmission lines, substation or water supply and return lines.

(c) Construction and operation activities within the Special Exception area, including transmission and pipeline construction, shall not adversely impact adjacent properties not owned by the Applicant. Storm water run-off, and excessive dust, smoke, noise, glare and vibrations shall be considered adverse impacts.

(d) Operational characteristics, such as noise, dust, vibrations and traffic shall at all times comply with all local, state and federal ordinances, laws and regulations. With regard to sound levels, maximum sound levels produced will not exceed 65 (dba) as measured from the property line of any adjacent property not under the same ownership as the subject property, sound levels will not exceed 55 (dba) between 10 p.m. and 7 a.m. as measured at the property line. With regard to vibrations, no vibration shall be transmitted which is discernable without instruments beyond the property line of the Special Exception area. The Applicant, or property owner or their assigns, shall promptly provide proof of compliance with any of the levels contained in this condition or with any other applicable ordinances, laws, or regulations relating to any operational characteristics in the event the County receives a complaint.

(e) Permanent roadway access to the site shall only be from U.S. Hwy. 19.

(f) Areas depicted as ponds are for stormwater detention only and will not be used for cooling or waste disposal purposes.

(g) The Special Exception area will not be used as a base for off-site utility line maintenance.

(h) The natural vegetation on the portions of the properties outside the designated Development Areas shall be maintained in its natural vegetated state.

(i) A 100-foot natural vegetated buffer shall be maintained along the site property's perimeter where abutting properties are not under the same ownership as the site property. An access road for agricultural or other low-impact uses may be integrated into the buffer.

Supporting County Regulations:

Section 125.01(1)(h), Fla.Stat.

Section 50-715, Levy County Code

Sections 50-796 through 50-823, Levy County Code

Conditions of SE 2-08, approved by the Board of County Commissioners
September 2, 2008

Condition E:

1. In the event the Applicant proposes any access to CR 40 for access to the site through Applicant's property that is adjacent to CR 40 for any purpose, and such access will not concurrently or later act as the heavy haul road (herein "driveway access"), at least thirty (30) days prior to any construction activities related to such driveway access, the Applicant shall provide all the following items to the County:

- (a) A completed County driveway permit form.
- (b) A detailed description of the proposed uses for such driveway access, including but not limited to estimated traffic volume, traffic composition, and proposed weights of loads that will use the driveway access.
- (c) Engineering and construction plans for such driveway access.
- (d) Maintenance of traffic plans for maintenance of traffic during construction of such driveway access.
- (e) Any other documentation or information required by the County Road Department for its review of the use and construction of the driveway access.

2. Such engineering and construction plans, and other information and documentation, and the construction of the proposed driveway access, shall meet requirements of the then-current Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction* and any Special Provisions adopted by the County Engineer in accordance with the provisions thereof, and the then-current Florida Department of Transportation manual, *Design Standards for the Design, Construction, Maintenance, and Utility Operations on the State Highway System*, and the requirements of the County Road Department.

3. After review and approval of such engineering and construction and maintenance of traffic plans by the County Road Department and County Engineer, the Applicant may construct the driveway access in accordance with such approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the driveway access, as provided in Levy County Resolution 2007-24.

6. No use of the driveway access for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

7. After final inspection approval, the use of the driveway access shall be limited to the uses contemplated and addressed in the description of the proposed use of the driveway access previously submitted for review.

8. Unless the driveway access is proposed to also act as the heavy haul road, and the provisions of Condition F for the heavy haul road have been met, the driveway access shall not be used to transport any equipment or other items that exceed the weight capacity of CR 40 as posted or that were not contemplated or addressed in the description of the proposed uses of the driveway access previously submitted for review.

9. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

10. The Applicant shall maintain the driveway access in good condition and shall make any repairs to CR 40 caused by use of such driveway access.

Supporting State and County Regulations:

Sections 1 and 10, Art. VII, Florida Constitution

Section 125.01(1)(m), Fla.Stat.

Section 336.02, Fla.Stat.

Section 336.045, Fla.Stat.

Section 403.511(4), Fla.Stat.

Section 62-17.133, F.A.C.

Objective 1, Transportation Element, Levy County Comprehensive Plan

Policy 4.2, Transportation Element, Levy County Comprehensive Plan

Section 50-381, Levy County Code

Section 50-715, Levy County Code

Levy County Resolution 2007-24

Condition F:

1. At least sixty (60) days prior to any activities in the transmission line corridor, the power plant site, or any of the Applicant's adjacent property, that may utilize the heavy haul road, or any other use of the heavy haul road across CR 40, the Applicant shall provide all of the following to the County for its review and approval:

(a) A completed County driveway permit form.

(b) A detailed description of the proposed uses for such heavy haul road across CR 40 and adjacent right-of-way, including but not limited to

estimated traffic volume, traffic composition, and proposed weights of loads that will use the heavy haul road.

(c) Engineering and construction plans providing for the design and construction of the heavy haul road within County right-of-way.

(d) Engineering and construction plans depicting any structural improvements that may be required to prevent and prohibit degradation of the structural integrity of CR 40 and the adjacent right-of-way as a result of the Applicant's proposed use of the heavy haul road.

(e) Engineering and construction plans depicting the proposed location, design, and construction of the temporary connection to CR 40 Applicant proposes to use for the heavy haul road.

(f) Maintenance of traffic plans for use during construction of both the heavy haul road and any improvements to CR 40 and adjacent right-of-way required to maintain structural integrity of CR 40.

(g) Maintenance of traffic plans for use during the Applicant's proposed use of the heavy haul road for construction of any development on the site or the associated facilities, or for any other purpose; and

(h) Any other documentation or information required by the County Road Department, Development Department, or County Engineer for review of the Applicant's use and construction of the heavy haul road and any related improvements to CR 40.

2. Such engineering and construction plans and other information and documentation, and the construction of the heavy haul road, shall meet requirements of the then-current Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction* and any Special Provisions adopted by the County Engineer in accordance with the provisions thereof, and the then-current Florida Department of Transportation manual, *Design Standards for the Design, Construction, Maintenance, and Utility Operations on the State Highway System*, and the requirements of the County Road Department, Development Department and County Engineer.

3. After review and approval of the engineering and construction plans and maintenance of traffic plans by the County through its Road Department, Development Department, County Engineer, and the Levy County Sheriff (only maintenance of traffic plans need to be reviewed by Sheriff), the Applicant may construct the heavy haul road, any structural improvements required to maintain the integrity of CR 40 and the adjacent right-of-way, and improvements constituting the connection of the heavy haul road to CR 40, each to be in accordance with the approved plans.

4. Such construction shall be subject to inspection and approval by Levy County through its Road Department, Development Department, and/or County Engineer.

5. Prior to final approval by the County, the Applicant shall be required to pay the County all of the County's fees for driveway connection permits, inspections, and any other fees related to the heavy haul road, as provided in Levy County Resolution 2007-24.

6. No use of the heavy haul road for any purpose shall be allowed prior to the final inspection approval by the County and payment by the Applicant of the County's fees as provided herein.

7. After final inspection approval, the use of the heavy haul road shall be limited to the uses contemplated and addressed in the engineering plans submitted for prior review.

8. Unless otherwise previously approved by the County, the Applicant shall also comply with all aspects of the approved maintenance of traffic plans.

9. Prior to use of the heavy haul road, the Applicant also shall provide a schedule for the loads that Applicant proposes to transport across CR 40 using the heavy haul road that will exceed the weight capacity of CR 40 as posted. The Applicant may amend such schedule upon 48 hours notice to the County of any such amendment.

10. Throughout the Applicant's use of the heavy haul road, the Applicant shall continuously maintain that portion of CR 40 traversed by the heavy haul road to meet rolling straight edge requirements contained in the most current edition of Florida Department of Transportation manual, *Standard Specifications for Road and Bridge Construction*. The County shall have the ability to inspect CR 40 at any time for compliance with this maintenance provision. The Applicant shall pay all of the County's costs for staff time and other costs incurred in connection with any such inspections upon request for payment by the County. In the event that the rolling straight edge requirements are not being met on that portion of CR 40 traversed by the heavy haul road at any time, the County shall have the ability to suspend the Applicant's use of the heavy haul road until sufficient improvements are made to maintain the rolling straight edge requirements described herein.

11. After the completion of the use of the heavy haul road for construction or maintenance activities related to the site and associated facilities, the Applicant shall make any repairs to CR 40 and the adjacent right-of-way in the area of the heavy haul road that have been caused by the Applicant's use of CR 40 and the adjacent right-of-way.

NOTE: As an alternative to compliance with this Condition F, the Applicant may enter into a development agreement with the County to provide for the provision of plans, construction and operation of the heavy haul road. Any such agreement shall be entered into and fully executed by both the Applicant and the County prior to any use of the heavy haul road.

Supporting State and County Regulations:

Sections 1 and 10, Art. VII, Florida Constitution

Section 125.01(1)(m), Fla.Stat.

Section 336.02, Fla.Stat.

Section 336.045, Fla.Stat.

Section 403.511(4), Fla.Stat.

Section 62-17.133, F.A.C.

Objective 1, Transportation Element, Levy County Comprehensive Plan

Policy 4.2, Transportation Element, Levy County Comprehensive Plan

Section 50-381, Levy County Code

Section 50-715, Levy County Code

Levy County Resolution 2007-24

September 3, 2008

Progress Energy Service Company, LLC
Attn: R. Alexander Glenn and Suzanne Ennis
299 First Avenue North
Suite PEF - 151
St. Petersburg, Florida 33701

RE: Special Exception No. 2-08

To Whom It May Concern,

The Levy County Board of County Commissioners met in regular session on Tuesday, September 2, 2008 and reviewed your application for local approval of a "Special Exception Use Permit" that would allow the construction and operation of two nuclear reactor powered electrical generating plants that would generate a total of 3,000 megawatts of electricity (i.e. 3 billion watts). The application and site plan includes all the necessary support services and structures required for the construction and operation of such facility including, but not limited to: offices, training facilities; rail lines; storage areas; warehouses; first aid facilities; staging areas; parking lots; helipad; electrical transmission facilities, including switch yard; cooling towers; pumping stations; waste water treatment plant; ground water well fields; potable water treatment plant; retention basins; shooting range; emergency notification equipment; fencing and security facilities; and temporary uses necessary for the construction of such power plants, including but not limited to: concrete and/or asphalt batch plants. Said parcel is approximately 2 miles North of the Town of Inglis, ½ mile East of 19/98 and located in all or portions of, Sections 7, 17, 18, 19, 20, 29 and 30, all lying in Township 16 South, Range 17 East, Levy County, Florida. Total Project Area: 3,105 acres more or less (based on survey). Current Land Use Designation: Public Use. Current Zoning District: F/RR.

It was the decision of the board to approve the special exception as requested with conditions.

If I can be of any further assistance, please feel free to contact me.

Sincerely,

Grace Benton
Zoning Codes Specialist

Board of County Commissioners Conditions for SE 2-08

1. The Special Exception Use Permit is for the construction and operation of not more than two (2) nuclear reactor powered electrical generating plants and associated support structures, accessory structures and uses identified and shown on the Site Plan Exhibit B.
2. No permanent entrance to the project site shall be constructed from Highway 40 for the purpose of operational phase work force access. This is not to preclude a roadway to provide access for the construction and maintenance of the transmission lines and the water supply lines used to convey cooling water pumped from the Cross Florida Barge Canal or return lines pumping water to the Crystal River Discharge Canal, emergency access or similar incidental access uses. This condition does not preclude the temporary use of the heavy haul road for the delivery of heavy equipment or materials for construction of the power plant (s), transmission lines, substation or water supply and return lines.
3. Construction activities within the Special Exception area, including transmission and pipeline construction, shall not adversely impact adjacent properties not owned by the applicant. Storm water run-off, and excessive dust, smoke, noise, glare and vibrations shall be considered adverse impacts.
4. Operational characteristics, such as noise, dust, vibrations and traffic shall at all times comply with all local, state and federal ordinances, laws and regulations. The applicant, owner or their assigns, shall promptly provide proof of compliance with any applicable ordinances, laws, or regulations relating to these operational characteristics in the event the County receives a complaint.
5. All wetland mitigation resulting from wetland impacts to properties in Levy County shall be made to property located in Levy County. The applicant, shall, whenever possible, conduct all wetland mitigation within the boundary of the site (3,105 acres).
6. Final development approval by the County shall be contingent upon the applicant obtaining all development approvals and permits from all applicable state and federal agencies that are necessary for the particular development activity to be approved by the County, with the exception of the Federal Combined Construction Operating License.
7. All development shall be contained within the designated development areas as shown on Exhibit A, with the exception of fencing, industrial rail spur, temporary uses incidental to the construction of the facility, transmission lines and pipelines, berms, guard houses,

water wells, monitoring wells, and internal roads necessary to provide internal access to these listed structures shall be contained within the designated development areas as shown on Exhibit A and shall be setback a minimum of 1,000 feet from any property boundary where abutting properties are not under the same ownership as the subject property.

8. Note 1 written thereon Map Exhibit A, and Notes 1 through 16 written thereon Map Exhibit B of the supporting documents submitted with the application shall be considered conditions of the approval of SE 2-08.
9. All conditions set forth by the Board of County Commissioners shall be binding on the applicant, owner, or their assigns.

Date: July 8th, 2008

To: Levy County Planning Commission and Board of County Commissioners

From: Robert Corbitt, Development Department Director

RE: Staff Review of Application **SE 2-08**, A Special Exception Application to Allow the Construction of a Nuclear Electric Generating Facility in Southwestern Levy County.

Project Name: Levy Nuclear Plants 1 & 2

Applicant: Progress Energy Service Company, LLC
R. Alexander Glenn, Suzanne Ennis
299 First Avenue North
Suite PEF - 151
St. Petersburg, Florida 33701

Owner(s): Florida Power Corporation d/b/a Progress Energy Florida
(based on deed) Progress Energy Place
299 First Avenue North

St. Petersburg, Florida 33701

Project Location: Approximately 2 miles North of the Town of Inglis, ½ mile East of 19/98

Short Legal Description: All, or Portions of, Sections: 7; 17; 18; 19; 20; 29 & 30, all lying in Township 16 South, Range 17 East, Levy County, Florida.

Parcel Info:	Parcel I.D. No.s	Sect./Tws./Rge	Acreage
Parcel 1.	03847-000-00	07-16-17	40
Parcel 2.	03866-001-00	17-16-17	480
Parcel 3.	03867-000-00	18-16-17	560
Parcel 4.	03869-000-00	19-16-17	640
Parcel 5.	03870-001-00	20-16-17	480
Parcel 6.	03889-001-00	29-16-17	195
Parcel 7.	03893-000-00	30-16-17	640

Total Project Area: 3,105 Acres more or less (based on survey).

Current Land Use Designation: Public Use

Current Zoning District: F/RR

Description of Amendment SE 2-08 Based on Submitted Application and Supporting Documents:

The purpose of this application is to obtain the local approval of a “Special Exception Use Permit” that would allow the construction and operation of two nuclear reactor powered electrical generating plants that would generate a total of 3,000 megawatts of electricity (i.e., 3 billion watts).

The application and site plan includes all the necessary support services and structures required for the construction and operation of such facility including, but not limited to: offices; training facilities; rail lines; storage areas; warehouses; first aid facilities; staging areas; parking lots; helipad; electrical transmission facilities, including switch yard; cooling towers; pumping stations; waste water treatment plant; ground water well fields; potable water treatment plant; retention basins; shooting range; emergency notification equipment; fencing and security facilities; and temporary uses necessary for the construction of such power plants, including but not limited to: concrete and/or asphalt batch plants.

Staff Review of Application and Supporting Documents:

Overview:

Staff finds the requested use is identified as a Special Exception in the F/RR schedule of district uses.

[See: Section 50-676. Schedule 1, Use Regulations, F/RR District, Special Exceptions]

Staff finds that it will necessary to comply with the following requirements of various divisions and subdivisions of Article XIII. Zoning, to obtain approval of the selected use. Those divisions, subdivisions and code sections are more particularly described as:

I.

II. The general review criteria for all special exceptions [DIVISION 5. STANDARDS AND REQUIREMENTS FOR SPECIAL EXCEPTIONS, CONDITIONAL USE PERMITS, VARIANCES, AND APPEALS; Subdivision I. Special Exceptions In General];

2• The specific review criteria for the selected use [DIVISION 3. DISTRICT REGULATIONS Subdivision 2. Requirements for specific uses; Section 50-710. Generally, and Sec. 50-715. Electric generating facilities.];

1• The requirements for site plan approval [DIVISION 4. PERMITS AND NONCONFORMITIES; Subdivision 1. Permits and Certificates; Section 50-775. Site plans]

The supporting documents submitted with the application make many references to details contained in a “Site Certification Application.” Therefore, the Site Certification Application is to be held as part of the application for Special Exception 2-08, and is hereby made part of the official public record for the following reasons:

- 1.) For the benefit of persons reviewing the information referred to in this Special Exception application. Two paper copies (9 large volumes) of the Site Certification Application were delivered to the county by Progress Energy Florida, or their consultants, for the purpose of the county to provide statements regarding the completeness of the Site Certification Application, and subsequently, consistency with the adopted comprehensive land use plan and zoning, as required by law. The planning commission members, county commissioners, other county personnel and the general public must have access to any information referenced in the special exception application or supporting documents.
- 2.) For the public record. This application is an Official Public Record of Levy County, Florida, and all references within the application must be kept with the application. The complete record would be a necessity for the legal department to defend whatever decision the board of county commissioners may make on the application.

Note: Electronic copies (CDs) of the Site Certification Application were obtained from the applicant and distributed, in a timely manner, to all planning commission members and to the appropriate government offices.

Staff found that this method of providing the information for review of the application cumbersome, and recommended that the details and information referenced in the application’s supporting documents be included in written form and inserted at the appropriate place in the document, or, at a minimum, provide an index to aid in locating the detail information referred to in the application.

Code Specific Review:

Staff comments will appear in text boxes following all applicable code sections.

DIVISION 5. STANDARDS AND REQUIREMENTS FOR SPECIAL EXCEPTIONS, CONDITIONAL USE PERMITS, VARIANCES, AND APPEALS

Subdivision I. Special Exceptions In General

Sec. 50-796. Generally.

Special exceptions, as enumerated in Schedule 1. Use Regulations, of section 50-676 hereof, or as contained in the Levy County Comprehensive Plan shall be permitted only upon authorization by the board of county commissioners subsequent to review by the planning commission. In granting any special exception, the board of county commissioners may require appropriate conditions and safeguards, made a part of the terms on which the special exception is granted, which if not complied with shall be deemed a violation of this article. The board of county commissioners may grant an application for special exception, provided that such application for special exception and the uses proposed therein shall be found by the board of county commissioners to comply with the following requirements or criteria and any other applicable requirements, criteria or standards set forth in this article.

(1) That the use is a special exception as set forth in Schedule 1. Use Regulations, of section 50-676 hereof or as set forth in the Levy County Comprehensive Plan.

The use is a listed special exception as set forth in Schedule 1. Use Regulations.

(2) That the use is so designated, located and proposed to be operated that the public health, safety, welfare and convenience will be protected.

There are concerns of offsite impacts that are relative to the public health, safety, welfare and convenience of the public. These impacts are primarily discussed in the “Impact Analysis” report section of the submitted application. Staff will provide comments following several code sections of this staff report related to offsite impacts as well as other compatibility issues. Some of the most prevalent of those potential offsite impacts are:

1•

2• **Water.** Consideration must be given to the impacts on aquifer draw-down, consumptive water use, saltwater intrusion, ground water recharge, potential ground pollution, wetland impacts, and air quality.

1•

2• **Light emissions.** Light emissions may present an environmental impact each night.

1• **Traffic.** Consideration should be given to the inconvenience of the public during peak hours (i.e., during shift change); during construction of the heavy haul road from the barge canal, across Hwy 40 to the site; construction of the rail road and trains crossing major roads; and the construction improvements required on US 19/98 at main the entrance to the site.

1• **Wildlife.** Impacts to fish, wildlife and plants, offsite as well as onsite.

1• **Noise/Vibration.** Constant noise will be present, both during construction and during the operation of the power plants. There will also be noise generated offsite associated with transmission line construction, construction of both temporary and permanent offsite facilities, and one could expect continuous noise at the pumping station located on the barge canal. A statement, written as Note 3. on Site Plan Exhibit B, states that “No vibration shall be transmitted which is discernable without instruments beyond the property line of the Special Exception area.”

While reviewing this application, please take in account that this particular use will be in operation 24 hrs. per day, 7 days per week, 52 weeks per year. This operating characteristic makes this special exception use unlike many other special exception uses.

(3) That the use will not cause substantial injury to the value of other property in the neighborhood where it is to be located.

The application does not include an opinion by a professional real estate appraiser as to what the effects of the project would have on the value of other property in the neighborhood where it is to be located.. The applicant’s planning consultant stated that the use would not cause substantial injury to that value of other property in the neighborhood where it is to be located (see page 2. Existing Conditions.....)

(4) That the property that is the subject of the special exception is suitable for the type of use proposed by virtue of its location, shape, topography, and by virtue of its compatibility with adjacent development, with uses allowed in adjacent land use and zoning districts, and with the character of the zoning district where it is located.

The decision of whether or not the subject property is suitable for the type of use proposed, by virtue of its location, shape, and topography, character of the zoning district where it is located and by virtue of its compatibility with adjacent development and the uses allowed in the adjacent land use and zoning districts, will be decided by the board of county commissioners by means of the special exception review process.

(5) That adequate buffering, landscaping and screening are provided as required in this article, or as necessary to provide a visual and sound barrier between adjacent property and the property that is the subject of the special exception.

Based on the project narrative, Progress Energy is proposing to set back all uses and structures that could produce excessive light, noise odor or vibration, a minimum of 1,000 feet from the boundary of the 3,105 acre site, and maintain a 100 foot natural vegetative buffer adjacent to properties not under project energy’s ownership.

(6) That adequate off-street parking and loading are provided and ingress and egress are so designed as to cause minimum interference with or congestions of vehicular or pedestrian traffic on abutting streets or of boat or vessel traffic on adjacent waterways.

Staff finds that adequate off-street parking and loading will be provided, and the ingress and egress proposed on the site plan (through a parcel not included within the 3,105 acre project area) should cause the least amount of interference with, or congestions of, vehicular or pedestrian traffic on abutting streets.

(7) That the use conforms with all applicable regulations governing the district where located, as may otherwise be determined for large-scale developments.

Upon the receipt of all required permits and approvals from all applicable state and federal agencies, the use may conform with all applicable local regulations governing the district where it is to be located.

(8) That the use is consistent with the provisions of the Levy County Comprehensive Plan and the Land Development Code, and that the application and use comply with the applicable provisions of subdivision II of this division 5 and with any specific requirements for the use contained in subdivision II of division 3 hereof.

(1991 LDR ch. 79, § 6.01(A); Ord. No. 05-01, § 6, 5-17-2005; Ord. No. 2007-03, § 24, 7-17-2007)

Consistency with the land development code will be decided by the special exception review process with assistance and/or recommendations provided by the development department director.

Consistency with the comprehensive land use plan shall be decided by the special exception review process with assistance and/or recommendations provided by the planning director.

Sec. 50-797. Limitations.

(a) Each special exception is valid only for the specific purposes for which it is granted as indicated in the approved application, plans, drawings or exhibits. Any unauthorized deviation from the approved application, plans, drawings, exhibits, specifications or conditions of a special exception shall be grounds for revocation of the special exception or any action at law or in equity to enforce the provisions of the special exception or of this Code.

(b) Unless a special exception is approved with a condition imposing a specific duration or automatic revocation upon a specific event, and provided that the provisions and conditions of a special exception have not been violated, a special exception shall run with the land and shall not be transferable to a different site.

(c) A special exception does not relieve an applicant, property owner, or user of the special exception property from liability for harm or injury to human health or welfare, plant or animal life, or property caused by its construction or operation. Nor does a special exception allow an applicant, property owner, or user of the special exception property to cause pollution in violation of any county, state, or federal code, ordinance, policies, laws, statutes, rules or regulations.

(d) In the event an application for a special exception has been denied, the board of county commissioners shall not thereafter consider an application for the identical use concerning all or any part of the same property for a period of six months after such denial, except that this limitation may be waived by a majority vote of the board of county commissioners when the board deems such waiver necessary to prevent injustice or to facilitate the proper development of the county. The six-month limitation imposed by the preceding sentence shall not apply to applications for modification to a previously approved special exception.

(1991 LDR ch. 79, § 6.01(D); Ord. No. 05-01, § 6, 5-17-2005)

Sec. 50-798. Application procedures.

(a) Written petition. An application for a special exception shall be obtained from and filed with the zoning official and shall be accompanied by the applicable fee to be established by resolution of the board of county commissioners. The zoning official shall review an application for sufficiency, which includes completeness of the application. If additional data or information is required, the zoning official shall advise the applicant and shall allow a reasonable time for the applicant to provide the additional data or information. Upon a finding by the zoning official that an application is complete, the application shall be scheduled for public hearings before the planning commission at the next planning commission meeting at which such application may reasonably be heard and before the board of county commissioners at a board of county commissioner's meeting in the month following the month of the planning commission meeting. Should an error in an application be discovered prior to a scheduled hearing, the zoning official shall have the discretion to require the applicant to reapply or submit revised or additional information. Special exception applications shall include but not be limited to the following, as applicable:

(1) Site plans of an appropriate scale showing proposed placement of structures on the property, provisions for ingress and egress, off-street parking and off-street loading areas, refuse and service areas and required yards and other spaces.

(2) Plans showing proposed locations for utilities hookups.

(3) Plans for screening and buffers, with references to type, dimensions and character.

(4) Proposed landscaping.

(5) Proposed signs and lighting, including type, dimensions and character.

(6) A legal description of the entire property encompassing the special exception.

The sheer magnitude and complexity of this project may warrant the exclusion of some specific requirements. The site plan provided provides sufficient detail to clearly understand the project, but does not include specific details that are normally provided for other projects with less complex issues, customary structures and typical land uses. A legal description and certified boundary survey has been provided. No landscaping, buffers or screening are shown on the site plan.

(7) A narrative description of the total project in sufficient detail to provide an understanding of the nature of the development proposal and a statement describing how the special exception meets all the requirements, criteria, and standards for approval set forth in this division 5.

The applicants have provided a statement describing how they feel the special exception meets all the requirements, criteria, and standards for approval, including consistency

with the comp plan.

(8) A list of names and addresses of property owners within 300 feet of the subject property (excluding rights-of-way) with corresponding address labels. This information shall be based on the latest available property records of the property appraiser's office. The applicant shall also provide a map clearly showing the subject property and all of the other properties within 300 feet.

Staff has provided the list of names and addresses of property owners within 2500 feet of the subject property as required in the specific review criteria for the selected use. Staff will provide mapping of the surrounding area, including existing land uses.

(9) Any other information required by the zoning official or by other provisions of this Code which the zoning official determines is necessary in order to process the application.

(b) Public hearings. The zoning official shall review a special exception application, investigate the conditions pertaining to the application, and submit a report to the planning commission prior to its public hearing on the special exception application. The zoning official shall also submit a report to the board of county commissioners prior to its public hearing on the special exception application. The zoning official and the parties in interest shall appear at the hearings in person, by agent, or by attorney. Following a public hearing before the planning commission, the planning commission may make recommendations regarding a special exception application to the board of county commissioners regarding granting, denial, or granting with conditions of the special exception application. Following a public hearing before the board of county commissioners, the board may grant or deny a special exception application, or may grant approval subject to compliance with certain conditions, restrictions or requirements as the board may deem necessary to protect the interest of the public health, safety, morals and

welfare, and to assure compliance with the land development code and the Levy County Comprehensive Plan. In the event an applicant elects not to proceed to a board of county commissioners hearing on its special exception application in the month following the planning commission hearing, the applicant shall have a maximum of six months from the date of the planning commission hearing to contact the zoning official to request a public hearing to be scheduled before the board of county commissioners, at which time the zoning official shall schedule the public hearing before the board of county commissioners at the next possible regular meeting date, or a special meeting date, for which notice requirements can be met, and in no event longer than 30 days after notification from the applicant of the desire to schedule the hearing. In the event the applicant does not contact the zoning official within six months after the planning commission meeting, the application shall be deemed to be withdrawn and the applicant shall be required to submit a new special exception application, with the special exception application fee in order to proceed with the application. The review of any special exception application submitted due to the lapse of six months from the planning commission hearing on the first application without the applicant requesting a board of county commissioners' hearing shall be conducted pursuant to the codes, ordinances, rules and regulations in effect as of the date of submission of the second application.

(c) Notices of public hearings. Once the zoning official has set the date, time and place for any

public hearing on a special exception application before the planning commission or the board of county commissioners, public notice for such hearing shall be published in a newspaper of general circulation in the county prior to the date of the hearing. In addition, the owners of property situated within 300 feet of the subject property shall be mailed written notice of the hearing prior to the date of the hearing by regular first class mail, addressed to the applicable property owner at the address shown on the last available records of the property appraiser. Any such notice by mail shall be considered effective when placed in the United States mail, postage prepaid; failure of an addressee to receive such notice shall not invalidate any proceedings. Both the published notice and the mailed notices shall contain a description of the request, a brief description of the subject property, and the time, date and place of the hearing, and shall invite all interested persons to appear and be heard. In addition, a sign shall be posted conspicuously on the subject property, and shall contain the time, date and place of the public hearing. Failure to comply strictly with these notice requirements shall not invalidate the proceedings.

(Ord. No. 05-01, § 7, 5-17-2005)

Editor's note: Ord. No. 05-01, § 7, adopted May 17, 2005, repealed the former § 50-798, and enacted a new section as set out herein. The former section 50-798 pertained to modification of recommendations and derived from 1991 LDR ch. 79, § 6.01(E).

Staff has complied with all PUBLIC NOTICE requirements.

Sec. 50-799. Reserved.

Editor's note: Ord. No. 05-01, § 8, adopted May 17, 2005, repealed § 50-799 in its entirety. Formerly, such section pertained to findings of fact and derived from 1991 LDR ch. 79, § 6.01(F).

Secs. 50-800--50-815. Reserved.

Subdivision II. Special Exception Review Standards

Sec. 50-816. Compliance.

An application for a special exception shall be approved only if it meets all of the requirements, criteria and standards contained in subdivision I and subdivision II of this division 5 as well as any other requirements for the requested use contained in subdivision II of division 3 or elsewhere in this chapter. Any requirements, criteria, standards, or conditions are not exclusive of any other requirements, criteria, standards, or conditions which may be established by the board of county commissioners due to particular circumstances which are unique to the property or to the application for which the special exception is being requested. Because a special exception is not normally permitted in a particular zoning district, the burden is upon the applicant to document that special exception meets all of the applicable requirements, criteria and standards and that the granting of the special exception will not create a hardship upon adjacent properties as they are currently being used or as they may be used in the future in accordance with the uses allowed in their respective land use map designations and zoning districts.

(1991 LDR ch. 79, § 6.01(B); Ord. No. 2007-03, § 24, 7-17-2007)

Sec. 50-817. General standards.

(a) The special exception use shall be consistent with the regulations of this article.

Staff finds the special exception use to be substantially consistent with the regulations of this article.

(b) The special exception use shall be consistent with the comprehensive plan for the county.

The planning director shall provide comments regarding consistency with the county's Comprehensive Land Use Plan.

(c) The special exception use shall be provided for an effective and unified treatment of the development possibilities on the project site making appropriate provision for the preservation of scenic features and amenities of site and the surrounding areas.

The applicants state that they're plan is to preserve all amenities with natural, scenic and historical value, mitigate any impacts to wetlands, enhance compatibility with the surrounding area by holding all development with excessive noise, light, odor or vibration a minimum of 1,000 feet inward of the total projects area boundary, and by maintaining natural vegetative buffers between their property and properties owned by others.

(d) The special exception use shall be planned and developed to harmonize with any existing or projected development in the area surrounding the project site.
(1991 LDR ch. 79, § 6.01(B)(1))

The project area is primarily surrounded by planted pine forests and natural raw lands. The predominate surrounding Future Land Use designation is Forestry/Rural Residential (F/RR zoning).

Sec. 50-818. Design standards.

(a) All buildings in the layout and design shall be an integral part of the development and shall have convenient access to and from adjacent uses and blocks.

(b) Individual buildings shall be related to each other in design, masses, materials, placement and connections to provide a visually and physically integrated development.

(c) Treatment of the sides and rear of all buildings within the planned development group shall be comparable in amenity and appearance to the treatment given to street frontage of these same buildings.

(d) The design of buildings and the parking facilities shall take advantage of the topography of the project site, where appropriate, to provide separate levels of access.

(e) All building walls shall be so oriented as to ensure adequate light and air exposure to the rooms within.

(f) All buildings shall be arranged so as to avoid undue exposure to concentrated loading or parking facilities wherever possible, and shall be so oriented as to preserve visual and audible privacy between adjacent buildings.

(g) All buildings shall be arranged so as to be accessible to emergency vehicles.
(1991 LDR ch. 79, § 6.01(B)(2))

Staff finds this section is more applicable to large scale commercial and residential developments. Staff finds this application would be consistent with any part deemed applicable. Considering the proposed land use, none of this section except (g) may apply.

Sec. 50-819. Landscape design standards.

(a) Landscape treatment for plazas, roads, paths, service and parking areas shall be designed as an integral part of a coordinated landscape design for the entire project area.

(b) Primary landscape treatment shall consist of shrubs, ground cover and street trees, and shall combine with appropriate walks and street surfaces to provide an attractive development pattern. Landscape materials selected should be appropriate to local growing conditions.

(c) Whenever appropriate, existing trees shall be conserved and integrated into the landscape design plan.

(d) All streets bordering the project area shall be planted at appropriate intervals with street trees.

(1991 LDR ch. 79, § 6.01(B)(3))

The application does not include any landscape design or details. The board should condition any such approval of this application to require landscaping consistent with all applicable code sections, and require a landscape architect to design and seal the landscape plan, with emphasis on the all portions visible from US 19/98.

Sec. 50-820. Circulation system design standards.

(a) There shall be an adequate, safe and convenient arrangement of pedestrian circulation facilities, roadways, driveways, off-street parking and loading space.

(b) Roads, pedestrian walks and open space shall be designed as integral parts of an overall site design. Roads, pedestrian walks and open space shall be properly related to existing and proposed buildings and appropriately landscaped.

(c) Buildings and vehicular circulation open spaces shall be arranged so that pedestrians moving between buildings are not unnecessarily exposed to vehicular traffic.

(d) Landscaped, paved and comfortably graded pedestrian walks shall be provided along the lines of the most intense use, particularly from building entrances to streets, parking areas and adjacent buildings.

(e) Materials and design of paving, lighting fixtures, retaining walls, fences, curb benches, etc., shall be of good appearance, easily maintained and indicative of their function.

(1991 LDR ch. 79, § 6.01(B)(4))

The application does not include detailed information or specifications related to the design or materials to be used for pedestrian walks, landscaping, paving, lighting fixtures, retaining walls or fences. However, staff finds the overall design of the interior vehicular circulation to be an adequate, safe and convenient arrangement.

Sec. 50-821. Parking and loading design standards.

(a) Parking facilities shall be landscaped and screened from public view to the extent necessary to eliminate unsightliness and monotony of parked cars.

(b) Pedestrian connections between parking areas and buildings shall be via special pedestrian walkways and/or elevators.

(c) Parking facilities shall be designed with careful regard to orderly arrangement, topography, landscaping, ease of access, and shall be developed as an integral part of an overall site design.

(d) Any abovegrade loading facility should be screened from public view to the extent necessary to eliminate unsightliness.

(1991 LDR ch. 79, § 6.01(B)(5))

Cross references: Traffic and vehicles, ch. 90.

Staff finds this section is more applicable to large scale commercial and residential developments.

The parking facilities related to this development are located well interior of the 3105 acre parcel.

Staff finds the parking and loading facilities would be screened from public view to the extent necessary to eliminate unsightliness.

Sec. 50-822. Reserved.

Sec. 50-823. Visual barriers.

Where required, a visual barrier a minimum of six feet high shall be constructed, consisting of any one or any combination of the following:

(1) A fence along any road frontage of the subject property, which shall consist of an opaque decorative wood or masonry fence no higher than ten feet. The fence around the remainder of the perimeter of the subject property shall consist of an opaque fence that may consist of masonry or wood construction, or of a chain link with sufficient aluminum slats to render it opaque.

(2) An irrigated berm.

(3) Non-deciduous, living vegetation, spaced in a manner, which, at the time of planting and thereafter, will constitute an unbroken screen.

(4) Masonry fencing, of decorative brick or concrete block and stucco, designed with a landscape theme that provides an unbroken screen and complements the character of the neighborhood.

(1991 LDR ch. 79, § 6.01(B)(7); Ord. No. 2007-06, § 10, 11-20-2007)

This project must meet certain state and federal requirements for security. The applicant's plan is to maintain a minimum of a 100 foot natural vegetative buffer along the boundary between their property and the properties of different ownership. The site plan does not indicate the location of such buffers or visual barriers. The board of county commissioners may condition the approval of this application to require any additional visual barrier deemed necessary.

Specific Review Criteria for the Selected Use:

DIVISION 3. DISTRICT REGULATIONS

Subdivision 2. Requirements for Specific Uses

Sec. 50-715. Electric generating facilities.

(a) Definition. As used in this section, the term "electric generating facilities" means any project subject to the Florida Electrical Power Plant Siting Act, F.S. §§ 403.501 through 403.518.

This project is subject to the Florida Electrical Power Plant Siting Act.

(b) No construction or expansion of any electric generating facilities shall be permitted without first obtaining the approval of a special exception in accordance with the provisions of this section.

(c) Minimum criteria, standards and conditions. In addition to any criteria, standards, conditions, and requirements contained elsewhere in this division 5 of Article XIII of this chapter 50, an application for a special exception for electric generating facilities shall meet the following criteria, standards, conditions, and requirements:

(1) The proposed electric generating facilities comply with all the required regulations and standards of this chapter, including provisions of division 5, Article XIII and of this section specifically, and all other applicable regulations.

(2) The proposed electric generating facilities are serviced by roads of adequate capacity to accommodate the traffic volume and load impacts and not adversely impact surrounding uses; or the applicant enters into an agreement with the county to make the necessary improvements to the impacted roads.

For the intent and purposes of this section (workforce and semi-truck deliveries), staff finds the project will be serviced by roads of adequate capacity to accommodate the traffic volume and load impacts, and that traffic would not create a substantial adverse impact surrounding uses.

The plan is to employ other modes of transportation to bring pre-manufactured components and material to the project site, some of which are temporary, and some which will be permanent.

(3) The minimum tract size for electric generating facilities shall be 2,500 acres.

The project area is 3105 acres more or less, not including pipeline and transmission line corridors.

generally shall not exceed a maximum of 20 percent.

The application states the impervious lot coverage is less than 20%.

(4) The maximum lot coverage for electric generating facilities shall be reviewed and approved by the board of county commissioners but impervious surface

(5) The height of any structure proposed with electric generating facilities shall be reviewed and approved by the board of county commissioners, but generally shall not exceed a maximum height of 300 feet.

The highest proposed structure is to be 250 feet above ground level.

(6) Notwithstanding any other provisions of this Code, the electric generating facilities' operational area (power islands) shall be surrounded by security fencing as required by state or federal agencies for security purposes.

The location of fencing is not shown on the submitted site plan.

(7) Screening and buffering of electric generating facilities shall be of such type, dimension and character to improve compatibility of the proposed electric generating facilities with land uses and structures of adjacent or nearby properties.

The applicant plans to maintain a 100 foot naturally vegetated buffer around the development for screening. The plan is to locate all structures and uses that may produce excessive light, noise, odor or vibration a minimum of 1,000 feet interior of the property boundary.

(8) The electric generating facilities are consistent with the comprehensive plan and conform with the general plans of the county as embodied in the comprehensive plan.

The planning director shall address the issue of consistency with the county's comprehensive land use plan.

(9) Potential impacts from water use to springs, rivers, tributaries, or water quality shall be addressed in the Power Plant Site Certification Process under F.S. ch. 403.

Under the Power Plant Site Certification process, governmental agencies such as the ACOE, FDEP and SWFWMD are named as the responsible entities for evaluating the potential impacts

to natural resources from the ground water used by the electric generating facilities. The Site Certification Application includes studies of potential impacts for water pumping activities. PEF will need to obtain a consumptive water use permit from SWFWMD prior to final development approval.

(10) The proposed electric generating facilities shall not result in such noise, odor, dust, vibration, off-site glare, substantial traffic or degradation of road infrastructure so as to adversely impact surrounding development or cause hazardous traffic conditions.

The project will likely cause offsite light emissions as well as noise. The applicant states that “All outdoor lighting shall be directional and shall not radiate directly onto adjacent residential properties.” It is unclear if this includes Forestry/Rural Residential properties. The board may want to require clarification of this statement, place a condition on any approval that no light shall shine onto adjacent properties, and/or require a photometric survey to evaluate the amount of light emissions that will be produced from the development.

The applicants have provided a noise study based on similar uses and land masses. The theoretical noise model projected that the noise levels that would be produced both during construction and during the operational phase of the project would be below that allowed by the county’s noise ordinance. The highest projected noise level was 53 decibels measured at the receiving property (i.e., closest property owned by persons other than the applicant).

The applicant states that “No vibration shall be transmitted which is discernable without instruments beyond the property line of the special exception area.”

Dust and odor are not expected to be an issue relating to compatibility, considering the location of the development area is central of the 3,105 acre tract (i.e., more than 1,000 feet from all property boundaries), and would likely only be factor during the construction phase.

(11) For an application where the subject property is located in or contains environmentally sensitive areas as designated by the land development regulations or the comprehensive plan, the applicant shall provide a permit or letter of exemption from the appropriate State of Florida Water Management District and the Florida Department of Environmental Protection and any other permitting agency with competent jurisdiction prior to the issuance of the local final construction approval document.

(12) The proposed electric generating facilities shall not be detrimental to the area residents or businesses, or the public health, safety or welfare of the community as a whole.

There are very few residentially developed parcels that would be directly effected by the proposed electrical generating facilities, due to their close proximity to the development area.

There are no known businesses located adjacent or in close proximity to the development area.

With the exception of: the inconvenience associated with vehicular traffic at peak traffic impact times; the inconvenience associated with the construction and use of the heavy haul road from the barge canal to the project site; the construction and use of the rail road from the City of Dunnellon to the project site; and the potential impacts from the long term consumptive water use, noise and light emissions, the proposed nuclear powered electrical generating facility should be beneficial to the community as a whole.

(d) Specific criteria, standards, conditions and requirements for special exceptions for electric generating facilities. In order to meet the criteria, standards, conditions, and requirements for approval of an application for electric generating facilities special exception, in addition to the minimum criteria, standards, and conditions provided above, the following provisions shall apply:

(1) Prohibited areas for generating structures or equipment. The following are areas where generating structures or equipment shall be prohibited (distances are measured from the structure or equipment). The term "generating structures or equipment" includes installations directly involved in generating electricity, such as reactors, boilers, turbines, cooling towers and similar facilities.

a. Within one mile of pre-existing schools and hospitals; within one-quarter mile of pre-existing county, state or federal parks; or within 660 feet if buffering methods are approved by the board of county commissioners in accordance with the buffering standards in subsection (2) below.

b. Within one mile of a pre-existing platted and recorded subdivision with lot sizes of five acres or less that include constructed streets and developed parcels; or within 1,320 feet if buffering methods are approved by the board of county commissioners in accordance with the buffering standards in subsection (2) below.

The project is not located within a prohibited area.

(2) Buffering standards. When required by the board of county commissioners for any generating structures or equipment, the

following buffer standards shall apply:

a. Length. The buffer shall be of sufficient length so as to shield generating structures or equipment from incompatible land uses when viewed from the property line.

b. Depth. A minimum of 100 feet measured perpendicularly from the property line.

c. Opacity. The buffer shall shield adjoining properties when viewed from the property line. The buffer must shield the operation at the time electric generation begins. Shielding shall

meet an 80 percent opacity standard. Cooling towers and other similar items that cannot functionally exist below the buffer need not be shielded. The clearing and stripping of vegetation from the property where an electric generating facilities special exception approval has been obtained shall not require the pre-establishment of a buffer.

d. Makeup. The buffer shall consist of a vegetated screen, augmented by a berm, if required, to obtain opacity. The following conditions apply to the vegetated screening:

i) A 100-foot wide vegetative screen is standard, except where a berm is necessary. Where a berm is necessary, the outer 50 feet of the buffer must consist of the vegetative screen.

ii) Existing trees located within the vegetative screen area must remain unless not native to the area.

iii) If sufficient vegetation does not exist, the vegetative screen area shall be planted primarily with evergreen or other non-deciduous trees native to the area and compatible with the area soils.

iv) The vegetative screen shall be a minimum of 10 feet in height at maturity.

v) An access road for agricultural or other low-impact uses may be integrated into the buffer.

e. Berms. The following are requirements for berms where utilized to augment vegetative buffers:

i) The berm shall generally run parallel to, and no closer than 50 feet from the property line. The above two standards may be modified where there are impeding physical features, such as wetlands or other such features.

ii) The berm shall be built to the height necessary (not to exceed ten feet above the natural surface of the ground) to shield generating structures or equipment from the property line (excluding cooling towers and other similar items that cannot functionally exist below the buffer) so that it cannot be viewed through the buffer from adjoining properties when viewed from the property line. The berm shall generally be of uniform height for its length, but may undulate at varying heights at or below the ten-foot maximum set herein, while still providing the shielding from view of adjoining properties from the property line.

iii) The berm must be stabilized with the planting of vegetation. Sloping requirements to the exterior face of the berm shall not exceed 1:2, vertical to horizontal.

iv) Adequate stormwater control shall be provided to protect the adjacent properties from additional runoff caused by the earthen berm.

No berms are required by code. The board of county commissioners may require, by conditional approval, any screening and buffering the board finds necessary to assure compatibility with adjacent and surrounding land uses.

(3) Access requirements. All electric generating facilities shall comply with the following access requirements:

a. Electric generating facilities shall be located only within an area that has direct access to a major collector or arterial road.

The primary vehicular access to the project site will be from a roadway classified as a principal arterial, a roadway which is part of the Florida Intrastate Highway System (FIHS).

b. Access and truck routes to the site through streets in platted recorded and unrecorded residential subdivisions are prohibited.

c. The applicant or owner shall, at their expense, install turn lanes, median cuts overpasses and/or traffic control devices deemed necessary (i) for state highways, by the Florida Department of Transportation, based on standard warrant procedures used by DOT to determine the need for such improvements; (ii) for county roads, by Levy County, based on the DOT publication entitled "Design Standards for Design, Construction and Maintenance and Utilities Operations on the State Highway System" and the ITE Manual 7th Edition. The cost of any required road improvements shall be credited against corresponding county impact fees under chapter 47 of this Code.

The application and supporting documents are consistent with this section.

(4) Setback requirements. All electric generating facilities' operational area shall meet the following setback requirements:

a. No use or structure shall be within 100 feet of any property boundary or public road right-of-way boundary.

b. No use or structure shall be closer than 330 feet to a pre-existing adjoining residentially developed lot, regardless of the location of the residence on the lot or parcel.

Exceptions to 4a. and 4b. above: Security fences, berms, guard houses, transmission lines, access roads, rail lines, water pipelines and conveyances, water wells, monitoring wells and similar accessory uses that do not produce excessive light, noise, dust or odor.

The application and site plan comply with this section.

(5) Electric generating facilities impact assessment report. All applications for proposed electric generating facilities shall present an electric generating facilities' impact assessment report prepared by a professional environmental consulting, planning, geology or engineering firm addressing subsections a. through c. below. The assessment report shall identify impacts to

reflect all individual and cumulative impacts resulting from construction and development, including any phasing of the proposed electric generating facilities' operations or activities. The electric generating facilities' impact assessment report shall address the following issues:

a. Compatibility. This portion of the report shall address the impact of electric generating activities, (if applicable), vibration, noise and sound, generated from the project site and transmitted to the surrounding area; the surrounding character of the area and development in proximity to the proposed facilities (i.e., residential and non-residential structures and accessory uses) and environmental, cultural and historical resources. The applicant for the special exception shall identify design and buffering improvements proposed to mitigate impacts to the surrounding area identified in the report and ensure protection of identified environmental, cultural and historical resources.

The application includes statements by the planning consultant (Engelhardt, Hammer and Assoc.) regarding compatibility. These comments are found in responses to general and specific review criteria required various code sections, as well as in the Impact Assessment Report.

In summary, the consultant points to the following designs and techniques to improve compatibility of the proposed electric generating facilities with land uses and structures of adjacent or nearby properties:

2• A 1,000 foot set back from property boundaries of land under the ownership of PEF for structures and uses that may produce excessive light, noise, dust or odors.

1• A one hundred (100) foot natural vegetative screen of existing trees along the boundaries of parcels not under the ownership of PEF. (Not shown on the site plan).

1•

2• No vibrations are to be discernable, without the use of instruments, at the property line.

1•

2• Outdoor lighting is to be directed away from residential land uses.

1• Progress Energy, through the Site Certification process, conducted extensive site evaluation activities to identify potential impacts to the environment, cultural and historical resources. The review of such studies are conducted by several state agencies, including the Florida Department of Environmental Protection, the Southwest Florida Water Management District, the Florida Fish and Wildlife Conservation Commission and the Florida Department of Community Affairs. Cultural and Historical resource issues are reviewed by the Florida State Historic Preservation Officer (SHPO), as well as associated DCA and Regional Planning Councils.

In conclusion, their consultant, Biological Research Associates does not anticipate any net adverse impacts to environmental, cultural or historical resources. The consultant states: "Information collected and reviewed to date has revealed no potential significant environmental constraints to the requested Special Exception." The application indicates that PEF has in place procedures and support organizations that will contact, consult and coordinate with the appropriate state agency should construction inadvertently discover historical, cultural or archeological resources.

b. Transportation system. This portion of the report shall include the anticipated impact on the roads serving the proposed facilities. This is to be assessed in a submitted traffic analysis that identifies existing and projected level of service, projected trip generation, structural stability of the county roads impacted and distribution of traffic. The traffic analysis shall take into consideration peak hour traffic generated at shift changes, and shall base the analysis on build-out projections for phased projects. The applicant for the special exception shall identify

all improvements proposed to mitigate impacts to the transportation network and impacted roadways.

The Impact assessment report included a traffic analysis by Lincks and Associates.

In summary, the analysis finds that the development, at all phases of construction and operation, should not degrade the level of service to US 19/98 below LOS "A." This highway segment is capable of handling 40,800 VTPD and still operate at a level of service "C."

The study was based on 70% of the traffic traveling to and from project entrance on US 19/98 from the south, and 30% traveling to and from the project entrance from the North on US 19/98.

The peak of traffic generation will occur during the 4th year of construction, during the construction/operational phase. That is when construction workers are still performing construction on the second nuclear plant generator (and support facilities), at the same time the work force needed for operating the first nuclear plant are commuting back and forth to work in shifts.

The study is based on vehicle trip ends (VTE). A trip, or trip end, is a single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site. For trip generation purposes, the total trip ends for a land use over a given period of time are the total of all trips entering plus all trips exiting a site during a designated time period.

The greatest traffic impact is generated by traffic south of the facility (70%), so only those VTE were used for the traffic impact analysis. Those traffic projections are as follows:

Construction Phase Link Analysis:	Yr. 2014	Background:	8,293
Total: 13,615 VTE			
Operational Phase Link Analysis:	Yr. 2020		
	Background	10584	Total:
	13,083 VTE		

Miscellaneous data included in the traffic analysis:

- 1•
- 2• The facility will generate approximately 6,703 VTE during the peak construction/operational phase.
- 3• The facility will employ up to 1,500 people at full operational phase.
- 4• Based on 2.38 VTE per employee, the facility would generate approximately 3,570 VTE during the operational phase of the project.
- 5• Traffic estimates for construction workers were based on 1.75 VT per construction worker.

c. **Water pumping activities.** Any electric generating facilities that include water-pumping activities shall not adversely impact water quality, run-off to adjacent properties, or existing legal uses as regulated by the appropriate water management district. The applicant shall provide water use approval under the Power Plant Siting Act in F.S. ch. 403, prior to the issuance of the final construction approval document for the facilities.

Withdrawal from the Cross Florida Barge Canal:

The proposed reactors will require a very large water supply for the cooling processes. The Cross Florida Barge Canal (CFBC) was chosen to provide the majority of the cooling water needed for waste heat dissipation, cooling tower evaporation, cooling tower blowdown, and pump strainer backwash. The portion of the cooling water supply not lost to evaporation will be discharged to the Gulf of Mexico through the use of a blowdown pipeline routed to the Crystal River discharge canal located at the Crystal River Energy Complex (CREC).

The proposed nuclear reactors will require an estimated 122.1 million gallons of water drawn from the CFBC per day, which amounts to approximately 200 cubic feet per second. The consultant states "Use of these waters (i.e., the Gulf of Mexico) will provide an essentially unlimited source of cooling water even during drought conditions without affecting other water users' needs in the Waccasassa and Withlacoochee River Basins.

The impact analysis report related to water pumping activities further concludes:

- 1•
- 2• No effect on local groundwater supplies is expected to occur since the cooling water is to be drawn from the Gulf of Mexico via the CFBC.
- 1• Impacts to Lake Rousseau from operation of the two nuclear power units are anticipated to be small.
- 1• That the aquatic ecosystems of the CFBC and the Gulf of Mexico are well-adapted to a range of temperature and salinity conditions, that withdrawing water from the CFBC will not change conditions beyond the natural range that presently occurs in the CFBC, and that a more constant range of higher-salinity waters during full pumping conditions is anticipated to improve water quality conditions for many aquatic organisms and result in an improved biota in the upper portion of the CFBC.

STAFF COMMENTS CONTINUED ON NEXT PAGE: The water use analysis contained in the special exception application (as well as for the Site Certification Application to FDEP) was prepared by PEF consultant, Progressive Water Resources.

Previous to this application for the required special exception use permit, Progress Energy Florida requested certain comprehensive land use plan and land development code amendments relating to electrical power generating facilities. The text of the Comprehensive Land Use Plan and Future Land Use Map were amended, as was the Land Development Code to implement those amended policies of the Comprehensive Land Use Plan.

During those processes, it was decided to defer consumptive water use to the state and federal agencies that have the staff, resources and authority to evaluate and regulate water pumping activities.

The Levy Nuclear Plants will require a supply of fresh water for general plant operations, a supply of fresh water or salt water for cooling, and a location for discharge of cooling water which is not evaporated in the cooling process.

STAFF COMMENTS CONTINUED ON NEXT PAGE:

Withdrawal from the Floridan Aquifer Groundwater:

Ground water is to be used for service water cooling tower makeup water, potable water supply, raw water supply, raw water to demineralized water, fire protection, service water strainer backwash, and media filter backwash.

Groundwater for plant operations will be drawn from four (4) sixteen (16) inch diameter onsite supply wells constructed to a maximum depth of five-hundred (500) feet with a minimum cased interval of 150 feet. Planned pump capacity for each well is 1,000 gallons per minute. Based on the figures presented in the impact assessment report, groundwater use is anticipated to be:

- 1•
- 2• Total Annual Average Daily groundwater use = **1,580,000 gallons per day.**

- 1•
- 2• Peak Month Daily groundwater use = **5,850,000 gallons per day.**

The following is a summary of the consultant's analysis of the data collected during their investigation of the impacts to groundwater resulting from water pumping activities related to PEF Levy Nuclear Plants 1 & 2:

Simulations (models) indicated that potential drawdown impacts to adjacent groundwater users of the Upper Floridan Aquifer System is on the order of one (1) foot or less. Drawdown is not expected to cause any adverse impacts to users' ability to withdraw groundwater. Therefore, if appropriate mitigation measures are in place, the overall impacts from groundwater use on the water supply and quality are expected to be small.

Staff recommends that the applicant detail what appropriate mitigation measures are, and what necessitates instances of mitigation.

Secondly, staff recommends the applicant to provide an illustration or map (or direct staff to an existing exhibit or map) which shows the projected outer limits of the drawdown during full operation (i.e., indicate the area where the 12 inch drawdown would occur, outward to a point where it might be 2" or less.

(6) Documentation/application. In addition to meeting all application and notice requirements for special exceptions provided in division 5 of article XIII; an application for a special exception for electric generating facilities shall contain all reports, documentation and map illustrations showing that the application complies with all of the requirements contained in this section.

This special exception application makes many references to the Site Certification Application dated June 2, 2008, that was submitted to the Florida Department of Environmental Protection pursuant to the "Florida Electrical Power Siting Act," Chapter 403, Part II, F.S.

Levy County, and other affected governments, were provided two paper and two electronic copies of the Site Certification Application for the purposes of providing the state with a determination of completeness, and a subsequent determination of consistency with adopted comprehensive land use plans and zoning ordinances.

That application consists of nine (9) volumes of text, which includes mapping and other illustrations on which the applicant relies to satisfy the requirements of this code section. Therefore, the Site Certification Application dated June 2, 2008, is hereby incorporated to be an inseparable part of this Special Exception application number SE 2-08.

The Site Certification Application was deemed to be too voluminous and cumbersome for distribution to the planning commission and board of county commissioners in paper form. Therefore, in order to provide the supporting documentation for review of the special exception application by county boards, staff requested twenty copies of said Site Certification Application in electronic form (CDs) and distributed them with the copies of the special exception application.

Copies of the special exception application, together with electronic version of the Site Certification Application were, or will be distributed at the appropriate time, to all members of the planning commission and board of county commissioners for their review and consideration in public meetings.

Copies of the special exception application and Site Certification Application were also provided to the appropriate county personnel for their review, to the county commissioner's office for convenience of the commission and public, and to the Clerk of Court for official record keeping.

(7) Application fee. The fee for an application for a special exception for electric generating facilities shall be set out in the fee schedule approved by the board of county commissioners and maintained by the county development department. The application fee is non refundable, whether the application is ultimately approved or denied.

(8) Public notice requirement. In addition to any other notice requirements for a special exception contained within division 5 of article XIII, the extent of the notice required to be provided to surrounding property owners for an application for a special exception for electric generating facilities shall be extended from 300 feet to 2,500 feet. The additional cost incurred by providing notice beyond 300 feet shall be calculated and paid for by the applicant prior to the public hearing on the special exception to be held before the planning commission.

Staff provided notice consistent with this section.

(9) Transfer of special exception. Notwithstanding any other provision in this section to the contrary, a special exception approval for electric generating facilities shall be issued only in the name of the applicant and may be transferred only when the interest of the applicant in the lands that are the subject of the special exception are transferred. Prior to such transfer, the applicant and the prospective transferee must apply to, and receive approval from, the board of county commissioners for an amendment to the special exception application submitted to the county development department. All financial liability and permit filing obligations shall be transferred at the time the interest in said lands is conducted.

(10) Noncompliance. Upon a finding of noncompliance with this section, or any special exception condition for electric generating facilities, or any approved site plan for the electric generating facilities, the building official shall notify the applicant or operator of the electric generating facilities in writing of noncompliance. The applicant or operator shall have 30 days to respond. Failure to respond shall be grounds for any action at law or in equity to enforce the provisions of the special exception or of this Code.

a. Appeal. Any appeal of a noncompliance finding issued in accordance with this subsection shall be submitted to the county development department and the office of the board of county commissioners within 15 days of the date of such noncompliance finding. Such appeal shall be heard by the board of county commissioners at a noticed public hearing. The board of

county commissioners shall consider any action at law or in equity to enforce the provisions of the special exception or of this Code. No appeal filed later than 15 days after the date of such notice shall be acted upon by the board of county commissioners.

(Ord. No. 2007-05, § 6, 9-18-2007)

Editor's note: Ord. No. 2007-03, § 22, adopted July 17, 2007, repealed § 50-715, which pertained to clubs and derived from 1991 LDR ch. 79, § 6.01(G)(5). Subsequently, Ord. No. 2007-05, § 6, adopted September 18, 2007, added § 50-715 to read as herein set out.

Sec. 50-775. Site plans.

Whenever a site plan is required to be submitted in accordance with any provision of this chapter, and the proposed development is not being submitted as a planned unit development as provided in division 6 of this article, the following shall be the minimum requirements for such site plan:

(1) Project identification.

- a.** Title of project or development.
- b.** Name of engineer, architect and developer.
- c.** North point, scale, date and legal description of proposed site.

Due to magnitude and complexity of the project, staff agreed to accept the site plan as formatted. The applicant has explained that is not possible at this point in time to pinpoint the exact location of all structures as related to the property boundaries or other structures.

Staff finds the format used for the site plan presents a clear understanding of the project, and depicts the location of proposed structures and land uses in close enough proximity for a determination of consistency (consistent or not consistent) with the requirements for the requested Special Exception Use Permit.

Site Plan Review

Format:

The site plan is submitted in two maps and a map key.

The first map, entitled **Exhibit A**, includes a legal description, north arrow and a scale. Its primary purpose is to identify surrounding land uses, establish the total project boundary, and set a boundary around all areas where development is to occur.

The second map, entitled **Exhibit B**, provides the general location of all structures and uses, both temporary and permanent. The temporary uses are shown in green, while the permanent structures and uses are shown in gold. Those areas shown in blue delineate man made ponds.

All structures and uses are identified by number, with the exception of the nuclear power units. These numbers collate with the numbers on the map key, or Development Table. The numbering begins with the number 101.

There are seventeen (17) notes provided on **Exhibit B**. Note number 16 states the areas depicted as ponds are for stormwater detention only and will not be used for cooling or waste disposal purposes.

The map key, entitled **Exhibit C**, Development Table, is also color coded to differentiate the between the permanent and temporary uses and structures. The tabulation of permanent structures and uses are depicted in gold, while the tabulation of the temporary uses and structures are depicted in green, with the exception of the power units (see note). The development table indicates the following:

- 1•
- 2• The description (occupancy or use) of the structure or impervious feature;
- 3• Whether the structure or use is permanent or temporary;
- 4•
- 5• The maximum length and width of a structure;
- 6• Number of stories or building height; and
- 7• The square feet of the structure or use (including impervious features, such as parking lots).

Staff review of Site Plan Notes:

Staff finds the language of the note on **Exhibit A** of the site plan mapping series so vague, it appears to allow any accessory use, any building height less than 350 feet, any building areas (sq. footage) and additional structures, as long as they are contained within the 954 acre development area and represent less than 20% lot coverage (impervious surface) of the 3105 acre special exception area.

Prior to accepting the application, staff agreed to a note that would allow for minor changes within the development area, such as: shifting the building locations due to site engineering, not

providing the exact location and number of parking spaces, acreage of stormwater retention/detention areas, the exact height or area of structures, adding insignificant structures such as guard sheds and security roads. Staff recommends the language of Note 1. On Exhibit A to be changed to a more limited flexibility.

STAFF REVIEW OF SITE PLAN NOTES CONTINUED ON NEXT PAGE

Some of the notes listed on **Exhibit B** present staff some concerns. The applicant should be required to clarify the following concerns:

Note 1. Appears to grant permission to violate the noise ordinance in the future. Points to existing residences, not measured at or within the boundary of property receiving the sound (see 50-349)

Note 2. I understand outdoor lighting will not be aimed at adjacent residences. However, the note refers to residential properties, while the land use and zoning is F/RR and Natural Reservation. Recommend clarifying how much light would be allowed to shine beyond PEF boundaries.

Note 3. How much vibration will be allowed at the property PEF boundary ? (I.e., what does without instruments mean ?).

Note 5. I think Note 5 was intended to allow necessary pervious parking during construction and permanent security roads. The note allows this type of development outside of the 954 acre development area. Staff recommends clarification as to what uses the pervious parking surfaces and internal circulation drives would serve.

Note 6. Landscaping required by code can not be met by maintaining the natural vegetation outside the designated development areas. The applicant may be pointing to mean screening in the buffer areas.

Note 8. The natural vegetation may not provide adequate screening in the required by code.

Note 13. Staff recommends clarification by stating all other intended accessory uses not listed.

(2) Existing conditions.

a. Boundaries of the property involved, all existing easements, existing buildings, section lines, property lines, existing street paving and rights-of-way, topography, existing surface water areas, existing water mains, sanitary and storm sewers, culverts and other underground structures in and adjacent to the property.

The submitted site plan does not provide the detailed information listed herein.

However, the CERTIFIED boundary survey prepared by HEIDT & ASSOCIATES provides the information required in this section.

The boundary survey shows easements, section lines and the areas of the 100 year flood plain as depicted on the Flood Insurance Rate Map (FIRM).

Staff could not find language addressing the status of access to other properties that may be affected by the project.

b. A one inch equals 200 feet aerial photograph of sufficient quality to delineate existing vegetation, or a tree survey prepared by a licensed surveyor or engineer.

(3) Proposed development plans.

a. Location and dimensions of proposed uses, setbacks, structure heights, streets, parking and loading areas, docks, surface water areas, fire hydrants, sanitary and storm sewers, culverts, water mains and other underground structures.

b. Size of proposed lots or parcels.

(4) Tabulation of proposed development plans.

a. Tabulations of total number of gross acres in the site and the acreages and percentages thereof proposed to be devoted to the uses including: uses (residential, commercial, industrial or other nonresidential), streets, parking and loading areas, recreation areas, retention areas and open and enclosed storage areas.

b. Tabulations of total number of dwelling units by dwelling type within the project.

c. Proposed development schedule and phasing.

d. Square footage of floor area by type of structure.

The development department director or the board of county commissioners, or other provisions of this Code, may require additional information to be included in any site plan submitted pursuant to this section.

(1991 LDR ch. 79, § 6.01(B)(6); Ord. No. 2007-03, § 23, 7-17-2007)

Staff finds the site plan substantially complies with section 50-775 (3) & (4)

Staff Recommendations:

Should the Planning Commission find the application and supporting documents complete and that they provide sufficient information to determine that the requested Special Exception Use complies with the goals, objectives and policies of comprehensive land use plan and the Land

Development Regulations applicable to such Special Exception Use, staff recommends the following conditions be attached:

- Condition # 1. The Special Exception Use Permit is for the construction and operation of not more than two (2) nuclear reactor powered electrical generating plants and associated support structures, accessory structures and uses identified and shown on the Site Plan Exhibit B.
- Condition # 2. No permanent entrance to the project site shall be constructed from Highway 40 for the purpose of operational phase work force access. This is not to preclude a roadway to provide access for the construction and maintenance of the transmission lines and the water supply lines used to convey cooling water pumped from the Cross Florida Barge Canal or return lines pumping water to the Crystal River Discharge Canal, emergency access or similar incidental access uses.
- Condition # 3. Construction activities, including transmission and pipeline construction, shall not adversely impact adjacent properties not owned by the applicant. Run-off, dust, smoke, noise, glare and vibrations shall be considered adverse impacts.
- Condition # 4. Operational characteristics, such as noise, dust, vibrations and traffic shall at all times comply with all local, state and federal ordinances, laws and regulations.
- Condition #5. All wetland mitigation resulting from wetland impacts to properties in Levy County shall be made to property located in Levy County. The applicant shall, when ever possible, conduct all wetland mitigation within the boundary of the site (3,105 acres).
- Condition # 6. Final development approval shall be contingent upon the applicant obtaining all approvals and permits from all applicable state and federal agencies.
- Condition #7. All development shall be contained within the designated development area as shown on Exhibit A, with the exception of fencing, security roads, rail roads, temporary uses incidental to the construction of the facility, transmission lines and pipelines.
- Condition # 8. All conditions set forth by the Board of County Commissioners shall be binding on the applicant, owner, or their assigns.

Appendix II-5

Florida Fish and Wildlife Conservation Commission Agency Report



**Florida Fish
and Wildlife
Conservation
Commission**

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MyFWC.com

January 8, 2009

Mr. Mike Halpin, Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blainstone Road, MS 48
Tallahassee, FL 32399

RE: Site Certification Application, Progress Energy Florida Levy Nuclear Plant, Power Plant
and Associated Facilities, Levy County, Florida; Agency Report and Recommended
Conditions

Dear Mr. Halpin:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of Progress Energy's Levy Nuclear Plant Power Plant and Associated Facilities application, and provides the attached Agency Report and Recommendations for Conditions to be included in the project certification. This Agency Report includes revisions based on discussion at a meeting with the applicant's representatives and staff from the Florida Department of Environmental Protection, and as such, it supplants the one sent to you with the cover letter dated December 10, 2008.

If you or your staff would like to coordinate further on the recommendations contained in this report, please contact me at 850-410-5272 or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Theodore Hoehn at 850-488-3831 or by email at ted.hoehn@MyFWC.com.

Sincerely,

Mary Ann Poole, Director
Office of Policy and Stakeholder Coordination

map/tsh

ENV 2-11-2/3

Progress Levy Nuclear_1452_1-09 letter

cc: Mr. Jamie Hunter, Progress Energy
Mr. Jim Alves, Hopping Green and Sams
Mr. Phil Corum, DEP

Agency Report and Recommendations for Conditions to be Included in the State Certification

Project Description

Progress Energy Florida proposes to build and operate two 1154 (nominal electrical) megawatt electrical (MWe) advanced passive light water nuclear reactors (proposed Levy Nuclear Plant Unit 1 [LNP 1] and proposed Levy Nuclear Plant Unit 2 [LNP 2]). LNP 1 and 2 would be located in Levy County, Florida. The project also would include several new and expanded 500-kilovolt (kV) and 230-kV electrical transmission lines and substations, new site access roads, and new offsite cooling water disposal pipelines that would connect the Levy Nuclear Plant site to the existing Crystal River Nuclear Energy Complex. The site is located adjacent to and north of the Cross Florida Barge Canal approximately seven miles from the coast.

Affected Resources

Effects on State-Listed Species

The Levy Nuclear Power Plant and its associated facilities would likely impact state-listed species, as described in the application. A listing of all the state- and federally listed species potentially impacted by the proposal and their listing status is enclosed as Table 1.

The entire project is within a Florida scrub-jay federal consultation area. Florida scrub-jays have been documented within 1000 meters of the proposed Levy Nuclear Plant. The area is also within a red-cockaded woodpecker (RCW) federal consultation area. The area around the proposed Levy Nuclear Power plant is known to contain the bald eagle, gopher tortoise, gopher frog, little blue heron, and Florida manatee. The Florida manatee is known to use the Cross Florida Barge Canal up to the Inglis Lock and Dam. Monitoring and mitigative measures will likely be needed to avoid impacts to the Florida manatee during construction and operation of the cooling water intake and trash rake structures. In addition, there is the potential for the eastern indigo snake, short-tailed snake, Florida pine snake, Florida mouse, white ibis, and Sherman's fox squirrel to occur there.

On a case-by-case basis, either a re-location or an incidental take permit may be required for each impacted species. Accordingly, if there is evidence that any individuals of these species are present, then the applicant must report the findings to the FWC. If impacts to these species cannot be avoided, then the applicant must contact the FWC before taking any action that might result in an impact to those species. The applicant should review our permit application requirements online at <http://myfwc.com/permits/Protected-Wildlife/contacts.htm> and contact the Wildlife Permit Coordinator within the Division of Habitat and Species Conservation with specific permitting questions.

Baseline Biological and Hydrological Data

1. Cross Florida Barge Canal

Based upon Progress Energy's modeling information, changes in water quality and, therefore, fauna will occur over seven miles of Cross Florida Barge Canal (Barge Canal). There is also the possibility of affecting the water quality and ecology of the Withlacoochee River. The baseline data for the Withlacoochee River encompasses an area from the Inglis Dam to the Barge Canal only and is derived from a single sampling event. There were no stations or samples taken in the lower Withlacoochee River on the north side of the Barge Canal.

The baseline data for the Cross Florida Barge Canal are from a single sampling season during drought conditions. The existing data provide a faunal inventory, but by itself such an inventory is not sufficient for determining the potential effects of this project. The temporal sampling of the Barge Canal, only once in late spring/early summer, provides a very limited picture of the fish and plankton community in this area and would almost entirely miss the recruitment periods of species such as red drum, striped mullet, and spotted seatrout. The sampling did not provide an adequate representation of biological conditions toward the outer portions of the Barge Canal in the area of the outer water quality stations.

Ideally, sampling should be conducted monthly for a least of a couple of years in order to determine seasonality and inter-annual variability (in at least a rudimentary manner) for the fish community. Site selection is crucial for determining structure and function within a fish community. Sites should be selected in a stratified-random manner to properly characterize the entire system. In order to adequately determine a more accurate baseline for both the Barge Canal and the Withlacoochee River, including both sections of the river, it will be necessary to sample over multiple years, over variable climatic conditions, and with the changes to the sampling protocols recommended herein.

2. Discharge via the Crystal River Energy Complex

Progress Energy proposes to discharge the new plant's effluent to the existing Crystal River Energy Complex's discharge canal. There is not much information on the environmental baseline conditions and biological effects at the existing Crystal River Energy Complex. Depending on the extent of change in discharge volume, alterations in temperature and salinity may affect the aquatic biological resources present; however, the hydrological modeling may not adequately represent the temperature and salinity plumes that could be expected. There may also be a nutrient component to be addressed.

Impacts to Aquatic Species and associated mitigation

1. Cross Florida Barge Canal

The anticipated flows into the cooling water intake structure, located near the Inglis Lock and Dam, are expected to result in changes for at least seven miles down the Cross Florida Barge Canal and in the Withlacoochee River. It is uncertain what the potential impacts to aquatic organisms will be due to

impingement and entrainment through the intake structure. Additionally, there are no mitigation plans to address the impacts that may occur to organisms in the Barge Canal or to the Withlacoochee River. While no state agency currently has plans for restoration of the Withlacoochee River, it should be noted that the siting of the cooling water intake structure and barge slip, near the Inglis Lock and Dam, will likely preclude restoration plans that could be developed in the future. It is also uncertain how much the increased inflow into the Barge Canal will reduce or impact the southward flow of freshwater from the mouth of the Withlacoochee River.

2. Marine and Estuarine Environment

Seagrass studies have been conducted for the Crystal River Energy Complex since the 1980s. These studies indicate that there has been no improvement in the seagrass coverage over time from the initial damage and decline in the seagrass coverage caused by the thermal discharge plume. Although the extent of impacts to marine fauna is unknown, it can be assumed that changes in the seagrass coverage have impacted the associated faunal community. Oyster habitats in the nearshore areas have been severely impacted as well. Overall there appears to have been a change in the amount and circulation of freshwater moving toward the south into the near shore areas. No mitigation plans have been proposed to address the cumulative impacts of the combined discharge to the seagrasses, nearshore oyster habitats, or fauna that would be covered under this certification and the new National Pollutant Discharge Elimination System (NPDES) permit.

Recommended Conditions

The FWC recommends the following conditions be included in the special conditions as part of the certification process to address specific wildlife species, biological survey and monitoring, and mitigation.

A. Listed-Species Conditions

General Listed-Species Surveys

1. The applicant will coordinate with the FWC to obtain and follow the current survey protocols for all listed species that may occur within the plant and associated facilities area, with appropriate buffers as defined by the survey protocols, prior to conducting detailed surveys.

Surveys will be conducted prior to clearing and construction in accordance with the survey protocols. The results of those detailed surveys will be provided to the FWC and coordination will occur with the FWC on appropriate impact mitigation methodologies.

Citations: Article IV, Sec. 9, Fla. Constitution; Section 379.2291, Florida Statutes (F.S.), Section 403.507, F.S., and Rule 68A-27, Florida Administrative Code (F.A.C.).

Gopher Tortoise

Information on the gopher tortoise and permitting can be found on the FWC's website.

1. The applicant will conduct surveys for gopher tortoises (*Gopherus polyphemus*), in accordance with the FWC-approved Gopher Tortoise Management Plan (adopted in 2007) and current Gopher Tortoise Permitting Guidelines. A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4, Methods for Burrow Surveys on Development (Donor) and Recipient Sites. Surveys must be conducted within 90 days of when an application is submitted to the FWC; however, surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other permittees are subject to field verification by the FWC. The gopher tortoise surveys should be conducted during the months of April through October.
2. A permit is not required for activities that occur more than 25 feet from a gopher tortoise burrow entrance, provided that such activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by the FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow; harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken.
3. The applicant will coordinate with and provide the FWC a completed gopher tortoise relocation permit(s) application in accordance with the FWC-approved Gopher Tortoise Management Plan and Gopher Tortoise Permitting Guidelines as a post-certification submittal. This permit application will provide information on the location for on-site recipient areas and any off-site FWC approved recipient site, as well as, appropriate mitigation contributions.
4. Any commensal species observed during the burrow excavations that are listed by the U.S. Fish and Wildlife Service (USFWS) or FWC will be relocated in accordance with the applicable guidelines for that species.
5. All staging and storage areas will be sited to avoid impacts to gopher tortoise burrows and habitat.

Citations: Article IV, Sec. 9, Fla. Const.; Section 403.507, F.S., Section 379.2291, F.S.; and Rule 68A-27.004, F.A.C.

Bald Eagle

1. The applicant will avoid impacts to bald eagle (*Haliaeetus leucocephalus*) nests where possible. If impacts cannot be avoided within the 660-foot nest buffer zone, construction activities will be conducted consistent with the FWC Eagle Management Guidelines, outlined in the FWC Bald Eagle Management Plan, dated April 9, 2008, or any subsequent versions. In areas where bald eagle nests are present, efforts will be made to avoid construction activities during the nesting season (October 1 – May 15) or when eagles are present before October 1 or after May 15.
2. In accordance with the FWC Eagle Management Guidelines, for construction areas that fall within 330 feet of an active or alternate bald eagle nest, construction activities will be conducted only during the non-nesting season (May 16 – September 30). Any construction activities that fall within 660 feet of the nest during the nesting season will be conducted following USFWS Bald Eagle Monitoring Guidelines, dated 2007, or subsequent versions.
3. In areas where adverse impacts to nests cannot be avoided, resulting in nest disturbance, the information required for an FWC Eagle Permit will be obtained from the FWC, as authorized by Section 379.2291 F.S., and Rule 68A-16.002, F.A.C., and minimization and conservation measures outlined in the FWC Bald Eagle Management Plan will be followed, as applicable.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Rule 62-17.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.002, F.A.C.

Florida Scrub-Jay

1. The applicant will coordinate with the FWC prior to clearing and construction to insure that surveys for Florida scrub-jays (*Aphelocoma coerulescens*) are in accordance with FWC- and USFWS-approved protocols (Fitzpatrick et al. 1991)*.
2. The applicant will conduct the surveys and provide the FWC with the Florida scrub-jay survey results and identify where impacts to Florida scrub-jays cannot be avoided.
3. The applicant will coordinate with the FWC to determine mitigative measures for areas where impacts to Florida scrub-jays cannot be avoided.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Rule 62-17.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C.

* Fitzpatrick, J.W., G.E. Woolfenden, M.T. Kopeny. 1991. Ecology and development-related requirements of the Florida scrub-jay (*Aphelocoma c. coerulescens*). Nongame Wildl. Prog. Tech. Rep. No. 8, Fla. Game Fresh Water Fish Comm., Tallahassee.

Red-Cockaded Woodpeckers

1. The applicant will coordinate with the FWC prior to conducting surveys for red-cockaded woodpeckers (*Picoides borealis*) to insure that surveys are in accordance with the FWC-approved Red-Cockaded Management Plan, adopted in 2003 and the USFWS Red-Cockaded Recovery Plan.
2. The applicant will conduct the surveys and provide the FWC with the red-cockaded woodpecker survey results and identify where impacts to red-cockaded woodpeckers cannot be avoided.
3. The applicant will coordinate with the FWC to determine mitigative measures for areas where impacts to red-cockaded woodpeckers cannot be avoided.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Rule 62-17.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C.

Avian Protection Plan

1. The applicant will coordinate with the FWC in the development of an Avian Protection Plan that delineates a program designed to reduce the operational and avian risks that result from avian interactions with electric utility facilities with the goal of reducing avian mortality. Guidelines for the Avian Protection Plan can be found on the USFWS website at:
<http://www.fws.gov/migratorybirds/issues/APP/AVIAN%20PROTECTION%20PLAN%20FINAL%204%2019%2005.pdf>

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Rule 62-17.191, F.A.C., Section 379.2291, F.S., 68A-27 F.A.C. and Rule 68A-16.001 F.A.C..

Florida Manatee

1. The Standard Manatee Conditions for In-Water Work (revision 2005) shall be followed for all in-water activity located where waters are accessible to manatees. These are enclosed as Attachment 1. Blasting or pile hammering activities to break rock shall be prohibited in or adjacent to waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.
2. At least 60 days prior to the beginning of in-water construction or demolition activities located where waters are accessible to manatees, the applicant shall contact the FWC to determine whether observers will be required, how many observers will be needed and who those observers will be. The permittee may provide the FWC with a list of prospective observers or the FWC will provide a list. Observers must be approved by the FWC prior to construction and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other associated vessels,

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

3. If a cofferdam is used during in-water construction to minimize release of sediment to the Cross Florida Barge Canal, the area inside (behind) the cofferdam must be checked for the presence of manatees during and after installation of the barrier before further work occurs to determine that manatees have not been entrapped.
4. At the earliest point in the final design phase of the project and prior to construction in waters accessible to manatees, the applicant must submit a complete final description and final design of the Cooling Water Intake Structure (CWIS) plan to be approved by the FWC with regard to manatee safety issues. The description should include the width of proposed vertical bar screens and the means by which they will be secured to the structure, the location and type of material proposed for screens and the method of securing the screens, the location of the pump and pump house, and a complete explanation of how access by manatees to the pump mechanism will be prevented. A final CWIS plan approved by the FWC must be implemented prior to the facility operation and maintained for the life of the facility.
5. At the earliest point in the final design phase of the project and prior to construction in waters accessible to manatees, the applicant must submit a complete description and final design of the trash rack/rake plan, which must be approved by the FWC. The description must include the type (brand) of trash rack proposed, the proposed rack installation angle, and if a rake/rake gripper (or other moving element for cleaning or straining) is proposed as part of the mechanism, a description of the rake gripper, the size (in inches) of the rake gripper opening, the proposed descent velocity of the rake or other straining mechanism, the proposed type of operation of the rake (automated or manual), and the proposed location of the trash rack relative to the CWIS forebay. A final trash rack/rake plan must minimize risks to manatees, must be approved by the FWC, implemented prior to the facility operation and maintained for the life of the facility.
6. To reduce the risk of entrapment and drowning of manatees, grating shall be installed over any existing or proposed pipes or culverts greater than 8 inches, but smaller than 8 feet in diameter that are submerged or partially submerged and reasonably accessible to manatees. Bars or grates no more than 8 inches apart

shall be placed on the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.
Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S, Rule 62-17.191, F.A.C., Section 379.2291, F.S. and 68A-27 F.A.C.

B. Biological Survey and Monitoring Conditions

Cross Florida Barge Canal and Withlacoochee River Survey and Monitoring

Field data are needed in order to determine impacts of the proposed withdrawals in the Cross Florida Barge Canal and the Withlacoochee River. The current Plan of Study needs revisions in order to calculate accurate baseline conditions and develop monitoring plans to determine deviations from baseline once operations begin.

- A. Within 180 days following certification of the Levy County Nuclear Facility, Progress Energy will submit to the Department of Environmental Protection (DEP), FWC, and Southwest Florida Water Management District (SWFWMD) a Cross Florida Barge Canal and Withlacoochee River Baseline Survey and Monitoring Plan (CRSMP). The CRSMP shall include, at a minimum, the following components and may include additional components as proposed by either the FWC or Progress Energy:
1. Nekton pre-operational survey and post-operational monitoring should be based on a stratified-random sampling design, with a minimum of 12 samples per month in the Cross Florida Barge Canal, a minimum of 6 samples per month in the Withlacoochee River downstream of Lake Rousseau, and a minimum of 6 samples per month in the area just off the entrance to the Cross Florida Barge Canal. Ideally the sampling effort would be divided between bag seines and otter trawls, with a ratio of two seine hauls to one trawl haul. This effort is comparable to current monitoring in the Hydrobiological Monitoring Program (HBMP) of the Alafia River-Tampa Bay Bypass Canal-Hillsborough system and is necessary to detect change in nekton communities. Ideally the number of samples necessary per month would be based on preliminary sampling and subsequent power analysis (to determine power to detect change), as was done in designing the HBMP. If additional gear is deemed more appropriate, these should be provided in the nekton monitoring study design.
 2. Plankton (ichthyoplankton and meroplankton) pre-operational survey and post-operational monitoring should be based on a stratified-random sampling design, with a minimum of 12 samples per month in the Cross Florida Barge Canal, a minimum of 6 samples per month in the area just off the entrance to the Cross Florida Barge Canal, and in the Withlacoochee River. The surveys should employ standard plankton sampling gear. Ideally the number of samples necessary per month would be based on preliminary sampling and subsequent power analysis (to determine power to detect change). The plankton monitoring should, at a minimum, include sampling at night.

3. Additional hydrographic survey sites will be needed to characterize circulation and flow from the Withlacoochee River south to the Barge Canal, across and into the Barge Canal, and south towards the Crystal River Energy Complex. Specific survey and monitoring locations, sampling frequencies and methods, and specific parameters to be surveyed and monitored shall be approved by the FWC, in consultation with DEP and SWFWMD.
 4. Pre-operational surveys shall be conducted for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy in order to establish seasonal/climatological baseline, biological and water quality conditions. This timeframe will not exceed the period of time that is available prior to operation of the facility.
 5. Pre-operational survey and post-operational monitoring shall be conducted for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy, utilizing the same pre-operational survey methodologies in order to identify and characterize biological and water quality impacts associated with the project for mitigation purposes.
 6. An impingement and entrainment study shall be developed and implemented for use during operations to validate the assumptions of limited or no impingement and entrainment of organisms.
 7. An adaptive management approach shall be applied during pre-operational surveying and post-operational monitoring plan development in order to accommodate for less expensive data collection methodologies that may become available.
 8. This CRSMP, including survey and monitoring locations, shall be approved prior to implementation. The FWC, in consultation with DEP and SWFWMD, shall indicate approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information is needed from the licensee to complete and approve the Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
 9. Upon approval, Progress Energy will start implementation of the CRSMP.
- B. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the survey and monitoring requirements, hydrographic analysis documenting the flow and circulation patterns in the nearshore areas, and a summary report at the end of the baseline period. These reports shall be submitted to the FWC, DEP, and SWFWMD (the Agencies) for review. If the FWC, in consultation with DEP and SWFWMD, in their review of the yearly progress reports, determine inadequacies or the need to modify the CRSMP, FWC will notify Progress Energy and a joint meeting will be held to discuss the findings. At the end of the baseline monitoring period, Progress Energy will hold a joint meeting with the Agencies to discuss the results. At that time, the FWC, in consultation with DEP and SWFWMD, and Progress Energy will determine what, if any, modifications need to be made to the CRSMP for monitoring once the Plant begins operations.

- C. If the CRSMP is determined to need modifications for monitoring during the operation of the Plant, Progress Energy will submit, within 180 days after notification of needed modifications, a revised CRSMP to the Agencies for review. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that additional information from the licensee is necessary to complete and approve the CRSMP, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
- D. Progress Energy will submit, after initiation of operations at the Levy Plant, an annual report, including all data and statistical analyses resulting from the monitoring requirements and an analysis comparing the current data to the pre-operational survey (baseline) data to the Agencies. If the FWC, in consultation with DEP and SWFWMD, determines that the pre-operational survey and post-operational monitoring data indicate harm or potential harm to the waters of the State (including ecological resources of the Cross Florida Barge Canal and the Withlacoochee River); and/or indicate exceedance of State water quality standards, or if these data are insufficient to evaluate changes, then additional measures shall be required to evaluate or to abate such impacts. Additional measures include but are not limited to:
1. Enhanced monitoring and/or modeling, and mitigative measures;
 2. Operational changes in the cooling water intake system to reduce any such impacts;
 3. Other measures to abate impacts as may be determined to be necessary as described in the Canal and River Monitoring Plan.
- E. Progress Energy will submit a summary report, including all data and statistical analyses from the baseline monitoring and an analysis comparing the current data to the baseline data, to the Agencies. The summary report should be submitted to the Agencies a minimum of 6 months before renewal of the NPDES permit.
- Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), 68A-4.001, F.A.C and Chapter 68A-27, F.A.C.

Levy Nuclear and Crystal River Energy Complex Discharge Survey and Monitoring

The current seagrass and faunal monitoring data do not appear to provide the necessary information to be able to assess the potential impacts from the combined discharge from the Levy Nuclear Complex (LNC) and Crystal River Energy Complex (CREC). The current Plans of Study for both the thermal plume monitoring and seagrass-faunal monitoring need revisions in order for the Agencies to be able to determine deviations from baseline once combined operations begin.

- A. Within 180 days following certification of the Levy County Nuclear Facility, Progress Energy will submit to the Agencies an LNC and CREC Discharge Survey

and Monitoring Plan (Discharge Monitoring Plan). The Discharge Monitoring Plan shall include, at a minimum, the following components:

1. A broad-based, pre-operational survey and a post-operational monitoring plan, for a period of time to be determined by statistical analysis in coordination between the FWC and Progress Energy, that is available prior to operation of the facility, that includes sites outside of the existing or predicted plume areas to allow for a comparison of the plume area sites to a “control site.” This time frame will not exceed the period of time that is available prior to operation of the facility.
 2. Specific survey and monitoring locations, sampling frequencies and methods, and specific parameters to be surveyed and monitored.
 3. The survey and monitoring will include, at minimum, protocols to monitor seagrass, oyster and hardbottom resources. Monitoring of physical parameters shall include, at minimum, surface and bottom temperature, salinity, dissolved oxygen (DO), total nitrogen, total phosphate, and water column transparency data collection.
 4. Intensive survey and monitoring of the central areas of the existing and future/predicted plume areas during the first and second summers of the combined discharge. This should include measurements of DO at the surface and at the bottom measured on a regular schedule (quarterly at minimum, monthly if possible), and, within the zone of plume impact, DO at the bottom measured overnight 3 to 4 times during each summer.
 5. An adaptive mitigation plan that outlines remedial action options if the CREC/LNC effluent has adverse impacts on water quality and physical parameters, seagrasses, oysters, or other marine organisms.
 6. The Discharge Monitoring Plan, including survey and monitoring locations, shall be approved prior to implementation. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
 7. The Discharge Monitoring Plan shall be implemented and replace the existing seagrass monitoring plan within one year following the certification of the LNC.
- B. The draft Discharge Monitoring Plan and results of monitoring data collected over the course of the previous and current CREC operating period and NPDES permits will be presented at a 1-day workshop in the Crystal River area, coordinated by FWC and Progress Energy. Information from this workshop will also provide a basis for developing the Levy Nuclear and Crystal River Energy Complex Discharge Mitigation Plan.
- C. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the survey and monitoring requirements, and a summary report at the end of 5 years after site certification of the Levy County Nuclear facility

and submit the report to the Agencies for review. If in the review of the yearly progress reports, the FWC, in consultation with DEP and SWFWMD, determines inadequacies or the need to modify the Discharge Monitoring Plan, FWC will notify Progress Energy and a joint meeting will be held to discuss the findings. At the end of the baseline monitoring period, Progress Energy will hold a joint meeting with the Agencies to discuss the results. At that time, the FWC, in consultation with DEP and SWFWMD, and Progress Energy will determine what if any modifications need to be made to the Discharge Monitoring Plan for monitoring once the Plant begins operations.

- D. If the Discharge Monitoring Plan is determined to need modifications for monitoring during the operation of the Plant, Progress Energy will submit, within 180 days, a revised Discharge Monitoring Plan to the Agencies for review. The FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that additional information from the licensee is necessary to complete and approve the Discharge Monitoring Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
- E. Progress Energy will submit, after initiation of operations at the Levy Plant, a yearly progress report, including all data and statistical analyses from the baseline monitoring and an analysis comparing the current data to the baseline data, to the Agencies. If the FWC, in consultation with DEP and SWFWMD,, determines that the pre-operational survey and post-operational monitoring data are insufficient to evaluate changes, indicate harm or potential harm to the waters of the State including ecological resources of the Cross Florida Barge Canal and the Withlacoochee River; and/or exceed State water quality standards, then additional measures shall be required to evaluate or to abate such impacts. Additional measures include but are not limited to:
 - 1. Enhanced monitoring and/or modeling, and mitigative measures;
 - 2. Operational changes in the discharge or water cooling system to reduce any such impacts;
 - 3. Other measures to abate impacts as may be determined to be necessary as described in the Plan.
- F. Progress Energy will submit a summary report, including all data and statistical analyses from the baseline survey and an analysis comparing the current data to the baseline data to the Agencies. The summary report should be submitted to the Agencies a minimum of 6 months before renewal of the NPDES permit.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), and Chapter 68A-27, F.A.C.

C. Mitigation

The siting of the cooling water intake structure and the operations of the plant may have an effect on the Withlacoochee River and the Cross Florida Barge Canal (Barge Canal). Additionally, the existing discharge from the Crystal River Energy Complex (CREC) has been documented to have impacted the seagrasses and associated fauna in the nearshore areas. The combined discharge from the Levy Plant and the CREC may continue to impact the near shore areas and possibly additional acreage. Previous mitigative measures at the CREC site have not resulted in enhancement or re-establishment of the seagrass community in the disturbed area of the discharge plume. Progress Energy is encouraged to avoid or minimize project impacts to reduce the requirements for mitigation during the construction and operational phases of the project. An example could be the use of the Levy Plant blowdown water being used to replace some of the intake water currently used by the Crystal River Energy Complex.

Cross Florida Barge Canal and Withlacoochee River

- A. FWC, in consultation with DEP and SWFWMD, will review the CRMP Annual Reports. If after the review and analysis of the data and reports there is an indication of adverse impacts, FWC, in consultation with DEP and SWFWMD, will notify Progress Energy of the need for mitigation. Within 180 days following notification of the need for mitigation, Progress Energy will submit to the Agencies a Withlacoochee River and the Cross Florida Barge Canal Mitigation Plan (CFBCWR Mitigation Plan). The CFBCWR Mitigation Plan may include the following components:
- 1) Plans to alleviate changes in flow, water quality, or biology, as determined from the survey and monitoring, in the Withlacoochee River south of Lake Rousseau.
 - 2) Funding for an FWC aquatic reconnaissance program to address impacts from impingement and entrainment of marine organisms and any changes in the Barge Canal. The funding will provide support to acquire various types of physical and biological aquatic data. This data will be used to assist in determining the potential for effects and necessary mitigation for projects proposed for development using aquatic resources or proposed to be located in waters of the State of Florida.
 - 3) Possible operational changes in the cooling water intake system to reduce any such impacts.
 - 4) The CFBCWR Mitigation Plan shall be approved by FWC, in consultation with DEP and SWFWMD, prior to implementation. FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the submitted information. In the event that FWC, in consultation with DEP and SWFWMD, requires additional information for the licensee to complete and approve the CFBCWR Mitigation Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.

- 5) Upon approval by FWC, in consultation with DEP and SWFWMD, Progress Energy will start implementation of the CFBCWR Mitigation Plan.
- 6) Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the implementation of the CFBCWR Mitigation Plan, and a summary report at the end of 5 years or a minimum of 6 months before renewal of the NPDES permit, and submit the report to FWC, DEP, and SWFWMD for review. If the FWC, in consultation with DEP and SWFWMD in their review of the yearly progress reports determine inadequacies or the need to modify the CFBCWR Mitigation Plan, they will notify Progress Energy and a joint meeting will be held to discuss the findings. If the hydrographic monitoring from the Canal and River Monitoring Plan indicates changes to the circulation and flow, a proposal will be developed to restore circulation patterns.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), 68A-4.001, F.A.C and Chapter 68A-27, F.A.C.

Crystal River Combined Discharge

- A. FWC, in consultation with DEP and SWFWMD, will review the CRMP Annual Reports. If after the review and analysis of the data and reports there is an indication of adverse impacts, FWC, in consultation with DEP and SWFWMD, will notify Progress Energy of the need for mitigation. Within 180 days following notification of the need for mitigation, Progress Energy will submit to the Agencies a Levy Nuclear and Crystal River Energy Complex Discharge Mitigation Plan (LNCREC Mitigation Plan). The Plan may include the following components:
 1. Remedial action options if the CREC/Levy Nuclear effluent has adverse impacts on water quality and physical parameters, seagrasses, oysters, or other marine organisms.
 2. Development of a hydrologic model for restoring flows and circulation if deemed necessary from the Canal and River Monitoring Plan.
 3. If the hydrologic modeling, from item 2 above, indicates positive changes, then consideration should be given to re-establishing the “flow-through cuts” along the Barge Canal spoil piles.
 4. Operational changes in the discharge or water cooling system to reduce any such impacts.
 5. The LNCREC Mitigation Plan shall be approved prior to implementation. FWC, in consultation with DEP and SWFWMD, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that FWC, in consultation with DEP and SWFWMD, require additional information for the licensee to complete and approve the LNCREC Mitigation Plan, the FWC, in consultation with DEP and SWFWMD, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information.
 6. Upon approval by FWC, in consultation with DEP and SWFWMD, Progress Energy will start implementation of the LNCREC Mitigation Plan.

- B. Progress Energy will prepare yearly progress reports, including all data and statistical analyses resulting from the implementation of the LNCREC Mitigation Plan, and a summary report at the end of 5 years or a minimum of 6 months before renewal of the NPDES permit, and submit the report to FWC, DEP, and SWFWMD, for review. If the FWC, in consultation with DEP and SWFWMD, in their review of the yearly progress reports determine inadequacies or the need to modify the LNCREC Mitigation Plan, FWC will notify Progress Energy and a joint meeting will be held to discuss the findings.

Citations: Article IV, Sec. 9, Fla. Const., Section 403.50, F.S., Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2401 F.S., Rules 68A-1.002 Florida Administrative Code (F.A.C), Chapter 68A-27, F.A.C.

Table 1. State- and federally listed species known or potentially occurring in the project area

Common Name	Scientific Name	Fl- status	Fed status
Gopher frog	<i>Rana capito</i>	SSC	
Eastern indigo snake	<i>Drymarchon couperi</i>	T	T
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	SSC	
Short-tailed snake	<i>Stilosoma extenuatum</i>	T	
Gopher tortoise	<i>Gopherus polyphemus</i>	T	
Florida scrub-jay	<i>Aphelocoma coerulescens</i>	T	T
Little blue heron	<i>Egretta caerulea</i>	SSC	
White ibis	<i>Eudocimus albus</i>	SSC	
Southeastern American kestrel	<i>Falco sparverius paulus</i>	T	
Florida sandhill crane	<i>Grus canadensis pratensis</i>	T	
Bald eagle	<i>Haliaeetus leucocephalus</i>	☐☐	
Red-cockaded woodpecker	<i>Picoides borealis</i>	SSC	E
Florida mouse	<i>Peromyscus floridanus</i>	SSC	
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	SSC	
Florida black bear	<i>Ursus americanus floridanus</i>	T	
Florida manatee	<i>Trichechus manatus latirostris</i>	E	E

*SSC = Species of Special Concern; T = Threatened; E = Endangered; **While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle management plan.

Attachment 1

STANDARD MANATEE CONDITIONS FOR IN WATER WORKS

2005

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) for south Florida.
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

FWC A M E S S

ASAP S D

624-B Pinellas Street
Clearwater, FL 33756
Phone: (727) 443-4878
Fax: (727) 442-7573

V S

104615 Overseas Highway
Key Largo, FL 33037
Phone: (305) 451-5133
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Fax: (772) 461-0669

C C S D

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Cape Coral, FL 33990
Phone: (239) 772-9992
Fax: (239) 772-3848

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St. Petersburg, FL 33713
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T
309 Angle Road
Ft. Pierce, FL 34947
Phone: (772) 489-8772
or (800) 489-8758 (FL only)
Fax: (772) 489-8757

CAUTION: MANATEE HABITAT

**All project vessels
IDLE SPEED / NO WAKE**

**When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN**

Report any collision or injury to:
1-888-404-FWCC (1-888-404-3922)

Florida Fish and Wildlife Conservation Commissio

Appendix II-6

Withlacoochee Florida Regional Planning Council Agency Report

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December 12, 2008

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

DEC 15 2008

SITING COORDINATION

Mr. Mike Halpin, P.E.
Siting Coordination Office
Department of Environmental Protection
3900 Commonwealth Blvd., MS#48
Tallahassee, FL 32399-3000

SUBJECT: Final Agency Report for Progress Energy Florida's Levy Nuclear Plant Units 1 and 2
Site Certification Application

Dear Mr. Halpin:

Pursuant to Section 403.507 of the Florida Statutes, Withlacoochee Regional Planning Council (WRPC) staff has written a final agency report for the main plant and associated facilities portion of the above-referenced application. This statement seeks to identify the goals and policies of the WRPC's Strategic Regional Policy Plan (SRPP) that will be affected by this proposal. Council staff writes its report for the benefit of the public, the applicant and all interested parties to define anticipated impacts of the proposed project on the region's SRPP.

PROJECT OVERVIEW

Progress Energy Florida, Inc. proposes construction of a nuclear power plant in unincorporated Levy County, Florida. The subject property is a 3105 acre parcel directly east of US 19 and approximately 4.1 miles northeast of the Town of Inglis. The developed area on-site should equal 300 acres or nearly 10% of total area. Primary site features would include plant buildings, two (Westinghouse) 1154 MWe AP1000 standard design pressurized water reactors, mechanical draft cooling towers, stormwater retention ponds, a 500 kV transmission line switchyard, a wellfield, access and heavy haul roads, and a meteorological tower. The site's landform is strongly characterized by wetlands and floodplains.

Aside from high-voltage electrical transmission lines functioning to transfer energy to market, associated facilities, which support plant construction and operations, would exist on-site or off-site. Principal road access to the plant would be provided from points along US 19. But a heavy haul road would facilitate the movement and delivery of plant components by barge during construction phases. The haul road would start at a planned barge slip on Cross Florida Barge Canal (CFBC), intersect CR 40, and then proceed north to terminate inside the development area.

Also included as associated facilities, two pipelines would function to transport seawater utilized for power generation. A cooling water pipeline facility would supply saltwater from the CFBC via an intake structure to each reactor, while wastewater (backwash and blowdown) pipelines would move cooled water to the existing Crystal River Energy Complex discharge location in Citrus County. The shared pipeline corridor would measure 13 by 0.25 miles and is co-located by the haul road for part of its route.

ANALYSIS

1. Emergency Preparedness—Preparation, Response and Recovery

The proposed nuclear plant and associated facilities may impact emergency preparedness, response and recovery from local to regional scales. Hazards requiring mitigation action may also exist due to the specific nature of plant operations. Plant facilities would likely constitute critical infrastructure, making safety and security issues of interest to all localities within its vicinity. To maintain broad consistency with the SRPP's emergency preparedness content, the applicant should work with affected local governments to fully integrate new facilities into all emergency management planning processes. An equal standard of preparedness should be implemented for both the main plant and associated facilities.

In Florida, regional planning councils function as authoritative agencies for the Statewide Hurricane Evacuation Study. Recently compiled findings, from the 2007-2008 survey, aim to inform evacuation behavior within the region leading to improved transportation and shelter analyses. It is useful to note that Chapter 14 of the *Statewide Evacuation Study: Withlacoochee Report* addresses the question of evacuation behavior of populations near the existing Crystal River nuclear plant. The statewide evacuation study confirms well over half of the region's residents will follow the instructions of public safety officials in the event of an emergency, regardless of whether instructions require evacuation or that individuals shelter-in-place. Furthermore, almost half of the region's residents indicate that they have written instructions of what to do in the event of an accident at the Crystal River plant site. As such, *Statewide Evacuation Study* findings support a view that directly affected populations have been informed as to the risks associated with a facility of this type; but it also means an identical standard of emergency planning should continue to apply to future development of new nuclear power facilities.

Because of the need to locate nuclear power plants in proximity to a constant source of cooling water, many are sited in coastal areas. If constructed, the proposed Levy Nuclear Plant may be one of the few nuclear power stations in Florida outside of a Category 5 Hurricane Surge Zone. While the SRPP supports a decision to locate new facilities outside of hurricane surge zones, it should be necessary to implement a program of mitigation to address vulnerability to coastal storm and flood hazards. A portion of the subject property abuts US 19, which has been designated a regionally significant hurricane evacuation route. Any hurricane event would inundate the vicinity of the plant with storm surge. Areas most likely to be impacted by storm surge include surrounding coastal communities, where plant workforce may reside, and major transportation facilities. On-site the plant and associated facilities may be especially vulnerable to flood hazard, given that so much of the site exists in the 100-year floodplain.

The following SRPP goals and policies apply:

- Goal 3.1 All counties in the region will be prepared to respond to and recover from the impacts of all hazards.
- Policy 3.1.2 Periodically conduct a self-assessment of emergency preparedness, response and recovery capabilities.
- Policy 3.6.1 Limit industrial and public utility land use activities where extremely hazardous substances would routinely be used near large populations and/or public facilities.
- Goal 3.7 Hurricane evacuation clearance times for the region shall be reduced by requiring that new developments not degrade the existing evacuation level of service as identified in the Withlacoochee Hurricane Evacuation Study.
- Policy 3.8.6 Prohibit improvement of or building of public facilities which encourage growth in hurricane surge vulnerable areas, except for necessary public services for existing developments.
- Goal 5.8 Maintain adequate capacity on evacuation routes to complete movement of vulnerable populations prior to the onset of pre-landfall hazards.

Conditions:

- 1) To maintain consistency with the SRPP's emergency preparedness content, the applicant should work with affected local governments and other stakeholders to fully integrate the plant into all emergency management planning processes.
- 2) Each of the main plant's associated facilities should be integrated into overall emergency management and response planning for the proposed nuclear power generation complex, so that the same standard of preparedness applies to all facilities covered by the site certification application process.
- 3) Due to the flood-prone nature of the site and vicinity, the applicant should organize and implement hazard mitigation efforts of the type employed at more vulnerable coastal power stations. Adverse and unintended consequences could result when essential infrastructure serving a region fails to operate because of area specific hazards.

2. Transportation

The efficient and economical transport of people and goods directly impacts regional quality of life and well-being. The proposed location of the plant is east of US 19 and in the vicinity of SR 121 to the north. CR 40 is located to the south. All three roadways are regionally significant.

The impact of plant activities on the land use/transportation relationship is relevant. Construction and permanent employment at the subject location will increase regional travel demand. Commuter trips will concentrate on those regionally significant, high capacity roads offering best plant origin or destination mobility options. Frequency of truck trips generated could impact quality or level of service on regionally significant roadways, emphasizing the importance of a multi-modal and regional approach to freight transportation. Road service volumes will grow in proportion to intensity of use matching the plant's role as a traffic generator in the land use pattern, reducing whatever surplus capacity is present and available in the road network. Associated facilities should not function to constrain regionally significant roadways.

Specifically, full assessment of project development requires identification of the largest traffic impacts to regionally significant roadways. The most significant impact to road function should occur at signalized intersections due to PM peak hour traffic congestion. A key concern remains access control on US 19. To help preserve characteristics of uninterrupted traffic flow, access management best practices should be employed to determine where access is inappropriate, to align access effectively between adjacent traffic generators, and to minimize access to only what is necessary to serve all users of US 19. If future development on the US 19 corridor results in new signalized intersections, then coordination between neighboring uses is advisable. CR 40 provides a vital east-west route between regional activity centers. CR 40 surface quality should be maintained during construction phases as freight moves across the haul road intersection.

Development of project infrastructure may also present new opportunities to plan enhancement of regionally-scaled, multipurpose trails. For instance, required improvements could allow greater trail system linkages. Alternately, project improvements might have a role in expanding trail accessibility and safety, help provide amenities or increase design value. Therefore, staff suggests the applicant engage all regional stakeholders and the public to identify and coordinate action on any such possibilities resulting from project certification. The clear starting point in this effort would be exchange of ideas with the Office of Greenways and Trails over cooperation in facility development.

The CFBC's suitability to act as waterway for barge freight will benefit from the applicant's proposal to construct a barge slip off-site. Improvements to the barge slip located on the north side of the canal (adjacent to Inglis Island) may further recreational access to the regionally significant Marjorie Harris Carr Cross Florida Greenway. Barge traffic should also increase, growing this location's importance as a regionally significant port facility. Whether, or to what degree, increased freight flow on the Cross Florida Barge Canal may constrain recreational use of the canal remains unknown as do the contrasting economic benefits. The applicant is encouraged to help define optimal use of the CFBC through cooperation with all interested parties to assess the capacity of the CFBC, leading to the establishment of parameters to guide all future use.

The following SRPP goals and policies apply:

- Goal 5.2 Increase the utilization of bicycle and pedestrian ways in the region.
- Policy 5.2.1 Bicycle and pedestrian facilities, and multi-purpose greenways, shall be part of the multi-modal planning and development of transportation facilities, including the incorporation of such ways into state, regional, and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility that fulfills transportation plans; special emphasis should be given to projects in or within 1 mile of an urban area.
- Goal 5.4 Protect future right-of-way for regional transportation facilities from building encroachment and incompatible land uses through the designation of regional corridors.
- Goal 5.5 Provide transportation facilities to ensure that the regionally significant roadways operate at acceptable levels of service.
- Policy 5.5.7 Access management controls on regionally significant roadways should be coordinated between the pertinent permitting agencies and local governments and consistent with F.A.C. 14-96 and 14-97 in order to maximize operating capacity and improve the safety of regional roadways.
- Policy 5.7.2 Encourage the development of facilities for efficiently moving goods and services within and through the region, including conventional and high speed rail, shipping, pipelines, transmission lines, and communications technologies.
- Goal 5.9 Plan for land use patterns that provide better opportunities for non-automotive trips.

Conditions:

- 1) Development of the main plant and associated facilities should not constrain, impede or otherwise limit future development of the region's transportation system. Road surface quality along CR 40 should be maintained throughout all construction phases, especially as heavy freight moves across the haul road intersection.
- 2) Any Environmental Resource Permit (ERP) issued should be conditioned on the creation of a trail development plan coordinated with the Office of Greenways and Trails, local governments, other stakeholders and involving public comment and participation.
- 3) In conjunction with all interested parties, the applicant should examine how plant construction and operation could impact the use of the Cross Florida Barge

Canal; a necessary preliminary task would be to initiate a capacity analysis to help inform the decision-making process.

- 4) The applicant is encouraged to be an active stakeholder in the transportation planning process, working within local and state processes alike, to forward best case outcomes for regionally significant transportation facilities.

3. Economic Development

The SRPP identifies the Withlacoochee Region's abundance and quality of natural resources as positive locational aspects conducive to development of an eco-tourism industry. In particular, the plan names the region's forests, rivers, lakes, springs and rural character as primary economic assets. Increased regional incomes and employment are cited by the SRPP as principal regional benefits of eco-tourism. Accordingly, the SRPP prioritizes development of the region's eco-tourism industry as necessary for regional economic prosperity.

Whereas transmission lines may negatively impact the region's eco-tourism industry without mitigation, the main plant and neighboring facilities should have minimal impact. The subject location's distance from US 19 will likely conceal the plant. On balance, this means the plant's effect on viewsheds of regionally significant roadways and other locations would be of limited impact. Except where noted in the next section of this report, other possible net adverse economic impacts related to plant construction and operation have not been identified. Associated facilities should be designed in such a way as to minimize the need for future expansion or else allow for co-location to occur within present corridor or area boundaries.

The SRPP's energy planning content provides context for assessment of the economic benefits of facility electrical production. The SRPP discusses regional energy use, recognizing that all human systems require energy to function. It likewise stresses efficient use of the region's energy resources. It also prioritizes development of electrical energy generation from a variety of sources. Moreover, the region's SRPP identifies electrical plants as necessary for best case regional development thereby prefencing them as regionally significant facilities.

As proposed, the nuclear power plant has the potential to create significant, positive regional economic impact. Nuclear power plant construction requires greater upfront capital outlay and longer construction periods than alternative facility types. Besides income gain through direct job creation, privately owned nuclear power plants yield a range of fiscal benefits to public sector finances. Plant construction has the clearly recognizable effect of increasing tax revenues—including sales, corporate income, ad valorem (property) taxes, and could raise other miscellaneous tax receipts. In the context of the region's rural population density, the anticipated number of 773 full-time, permanent jobs created should have stronger impacts based on the smaller sizes of the rural labor force and populations. Withlacoochee Regional Planning Council staff has applied REMI regional economic modeling software to examine the economic impact of facility construction and operation over the first ten years of the plant's anticipated life cycle. Model results confirm net positive economic impacts.

Action may still be required, however, to secure the most positive regional economic outcomes. Plant workforce payrolls can be substantial, but have a reduced contribution to gross regional product in proportion to the degree that workers reside elsewhere and commute to work. The history of general case nuclear plant development shows major construction purchases and subsequent procurements tend to be made from non-local suppliers. Therefore, applicant initiatives to recruit a workforce from the regional labor pool and utilize local suppliers when feasible would strengthen the regional direct and indirect benefits of this project, while complementing SRPP economic development content.

Co-location of other uses on-site or in proximity to the plant may offer unique economic advantages. Some industries may be very compatible, owing to plant residual outputs which could act as inputs to other industries. For example, excess heated water from the power generation process could be applied to desalination or other industrial uses. Overall, economic linkages formed through co-location at the plant site would aid efficient use of surplus energy, while facilitating new industry and markets. Expanding total use should be more than feasible as the percentage of site area remaining at the subject location, after excluding the portion reserved for development of the plant and associated facilities, remains substantial. The SRPP supports such an innovative approach.

The following SRPP goals and policies apply:

- | | |
|---------------|--|
| Goal 2.3 | Cultivate an economic climate that provides economic stability, maximizes job opportunities and increases per capita income for the region's residents. |
| Policy 2.3.7 | Increase coordinated economic development approaches through partnerships among education, business, industry, agriculture and the arts. |
| Policy 2.3.10 | Increase intra-regional cooperation in attraction/expansion of industry dependant upon close proximity to one another or actual co-location. |
| Policy 2.7.2 | Maintain land adjacent to agricultural areas in uses that are compatible with agricultural activities through comprehensive plans and land development regulations. |
| Goal 2.9 | Tourism directed primarily towards eco-tourism. |
| Goal 2.11 | To promote efficiency and economic productivity from economic development by ensuring that future economic development and transportation projects are properly sited to avoid and/or mitigate adverse impacts to incompatible adjacent land uses. |
| Goal 2.12 | To provide for the development and maintenance of adequate infrastructure and resources to support continued economic development in areas identified for growth in the local government comprehensive plans. |

Policy 4.15.1 Use renewable energy sources wherever feasible.

Conditions:

- 1) The applicant should cooperate broadly with workforce development agencies, community colleges and universities, as well as economic development organizations to maximize local employment during plant construction and operations.
- 2) To protect the region's viability as an eco-tourism destination, ensure that associated facilities make the least visible impact to viewsheds.
- 3) Co-location with other uses to the greatest extent possible may represent a best case economic outcome. Staff urges investigation of the methods that would make such activity feasible.
- 4) Design and place associated facilities so that future expansion will be located in proximity to existing improvements or in common facility corridors as a practical approach to safeguard the region's character as an eco-tourism destination.

4. Housing and In-migration

While the construction workforce should vary in number from 2010 to 2017, the applicant states that it will reach a peak of 2700 workers in 2014. More generally, the 3-year period of 2013 to 2015, will see an average annual employment of 2500 workers. Where possible, impacts from construction workforce in-migration should be anticipated and mitigated. Demand for quality workforce housing and essential public services has been well identified as a primary impact nexus to surrounding communities' health, welfare and safety. As a result, discussion of housing issues should encompass more than affordability to include consideration of the potential for crowding of dwelling units, the quality of workforce housing—especially temporary housing, and the relationship between the location of workforce housing and the transportation system. Applicant initiatives addressing workforce housing concerns would be positive and may significantly reduce potential impact.

Reference the following SRPP policy:

Policy 1.3.1 Maximize choice in housing location for very low, low and moderate income households, promote dispersion of affordable housing units, and promote accessibility to jobs, schools and services through locational principles and criteria established in local government comprehensive plans.

5. Natural Resources

Staff expects a number of project impacts will relate to regionally significant natural resources and systems. The SRPP names a wide variety of natural resources including water bodies, certain wetlands, known habitat areas, ecological communities, and public lands as regionally significant. Of particular concern is where proposed facilities would directly impact or otherwise cross lands with designated conservation or other protected status. Such areas serve vital natural system functions, where true mitigation of adverse impacts may or may not be possible.

Final review indicates that the following regionally significant public lands may be located within or around the main plant and associated facilities (excluding transmission lines): The Marjorie Harris Carr Cross Florida Greenway, Crystal River State Preserve, Withlacoochee State Forest, and Waccasassa Bay Preserve State Park. The location of the plant and associated facilities is near the following surface water bodies: the Withlacoochee River, Lake Rousseau, and the Crystal River. Both the Withlacoochee and Crystal Rivers are designated as Outstanding Florida Waters (OFW). The development site is also located in proximity to coastal resources of regional significance. These include the Big Bend Aquatic Seagrasses Preserve and Estuary, coastal Class II seawaters, as well as salt or freshwater marshes and swamps. A systems-wide analysis required examination of impact to regionally significant natural springs and aquifers.

As a result of construction, numerous disturbances to the landform and watershed could occur on or around the subject location. Construction of the plant and associated facilities would clear land cover as site preparation. Other related impacts might consist of temporary on-site construction-related improvements, changes to existing drainage patterns, grading (excavation and fills), possible subsidence, elevated sediment yields, wetland or floodplain impacts, and temporary loss of ambient air quality. In all cases, the region's SRPP can only support changes to regionally significant natural features and systems in proportion to the degree that restoration of original conditions remains possible.

Active site development during the construction phase has the potential to affect existing landform conditions. For construction activities near wetlands and surface water bodies, appropriate turbidity, erosion and sedimentation control measures should be implemented and maintained until such activities are completed and side slopes have been stabilized. These techniques could include the use of anchored silt fences, turbidity curtains, stacked hay bales, mulch, and sod along unstable slopes and embankments, and reduced construction vehicle activity. Permitting should require construction activities minimize disturbance, especially to sensitive areas including wetlands, hydric soils and slopes as well as disturbance to rivers, lakes, streams, and floodplains. The applicant is encouraged to plan for comprehensive mitigation of all wetland and floodplain impacts, especially through actions consistent with a natural systems based approach. Given the scale of wetlands on-site and magnitude for potential disturbance, staff would ask that ERP review define mitigation obligations through a controlling Wetland Mitigation Plan (WMP).

As early as preliminary construction, it is possible that development of the main plant and associated facilities will create new, temporary and permanent impervious surface area. Impervious surface created by development equals a key measure of land use intensity. Staff has concern over the quantity of impervious surface area that could accompany development of the plant and associated facilities. Impervious surface area necessarily limits infiltration of precipitation, groundwater recharge, may contribute to a reduction in the water table and potable water supplies, and reduces base flow to wetlands and surface water bodies. Impervious surfaces also increase runoff and may present other unintended consequences. Creation of new impervious surface area can be a causal agent decreasing water quality in regionally significant rivers, lakes and springs. Impervious surface area should be minimized and then impacts mitigated through active planning and management adequate to accomplish watershed protection.

From the SRPP's perspective, natural resource impacts of most concern are those which are unavoidable and cannot be mitigated. Particular elements of main plant and facility operations may either individually or cumulatively function to create impacts where restoration of original conditions would be difficult or total scale of impact is unknown. Thus, the air and water quality, hydrological, ecological and thermal impacts of plant operations must be evaluated to determine impacts to identified regionally significant resources. In general, to achieve any consistency with the SRPP, the applicant must demonstrate that mitigation actions go beyond the minimum level necessary for permit approval.

The SRPP seeks mitigation of the impacts resulting from plant operation that could decrease regional environmental quality. A number of the residuals of plant operation have the capacity to adversely impact regional environmental quality. Treatment of seawater used in power generation with biocide will result in chemical discharge that could negatively affect regionally significant coastal water quality as well as plant and animal communities. The intake and discharge of seawater also has the potential to impact salinity in the estuarine waters of the Florida Barge Canal and elsewhere where released into the Gulf of Mexico.

Plant thermal output forms another impact category. If water temperature increase accompanies the release of heated wastewater from the main plant, then regionally significant aquatic ecosystems may be adversely impacted. Scope of thermal impact is dependent on total change. Yet once existing conditions have been altered, variation in thermal characteristics or even the periodic absence of heat output could create other impacts across a range of water quality attributes. Additional uncertainty could result from variation in thermal output due to normal operations/interaction of either the existing Crystal River Nuclear Plant or the proposed facility.

Total water quality impacts, of the type listed above, could have determinant impact the viability of the region's aquaculture industry. Either as a consequence of individual or cumulative impacts, damage to regionally significant seagrass beds, Class II coastal waters suitable for shell fish propagation and harvesting, salt marshes, mangrove swamps, other fresh and saltwater swamps, or even regionally significant rivers could have adverse consequences for the aquaculture industry with negative consequences for regional economic prosperity. At a minimum, monitoring activities informing water quality should be structured to allow for tracking of impact to the region's aquaculture and commercial fishing industries.

Still different impacts to ambient environmental quality could result from the release of cooling tower drift emissions. The applicant currently proposes no monitoring program for air quality impacts, because the total amount of drift emissions is not forecast to exceed the controlling regulatory standards. However, monitoring of air quality at the subject location would fulfill a useful purpose. Monitoring of air quality on-site and in the plant's vicinity would generate data to better support the air quality impact assessment process as future use develops on-site. Therefore, staff encourages the applicant to reexamine how air quality data might be efficiently collected within the context of already proposed monitoring programs on a scheduled or even intermittent basis.

Although generation of electrical power is expected to utilize 122 million gallons per day (mgd) of Gulf of Mexico seawater, an average of 1.58 mgd of freshwater would be withdrawn from the Floridan aquifer for plant systems. In addition, peak freshwater consumption from use on-site is estimated at 5.8 mgd. The applicant plans to reuse stormwater and has stated intent to use the lowest quality available water to achieve function, thereby reducing plant freshwater consumption. These actions are constructive and help recognize and affirm the importance of a practical approach to water conservation within the context of project development.

However, initiatives to minimize groundwater withdrawals through identification of alternative water supplies are positive. Local, long-term comprehensive planning may organize a sub-regional wastewater system as inter-jurisdictional joint public facility, which would be regionally significant when developed. If taken as another water supply source, such a system could further reduce plant groundwater demand. Decreasing plant water use benefits the prospects of safe yield freshwater withdrawal from the Floridan aquifer, itself regionally significant. By limiting scale of impact, safe yield aquifer withdrawal will help protect water dependent regionally significant resources, including natural springs and ecological systems.

Unless effectively mitigated, development of the plant and associated facilities could adversely impact regionally significant ecology through removal of existing habitat, change to vicinity conditions, and the introduction of new hazards to wildlife. Examples of adverse impact stemming from project development include avian collision or entrainment related mortality. Such wildlife and habitat concerns are of added weight given that the subject location for the plant and associated facilities is contiguous with the Goethe State Forest. The forest is protected conservation area, providing a location for multiple regionally significant resources and systems. It provides vital habitat area on a regional scale.

Recognizing the importance of such issues, the applicant has used data sources and observation to inventory occurrences of listed species within study area counties. But the scale and location of the project requires that the process of establishing impact to listed species, which has already been initiated, should be concluded by active wildlife management planning to address comprehensively questions of habitat loss and species interface. If fragments of habitat are identified on-site or where associated facilities exist, then mitigation activity should provide linkages of habitat patches through wildlife corridor design and implementation.

The following SRPP goals and policies apply:

- Goal 4.3 Prevent further degradation and restore ground- and surface-water quality.
- Policy 4.3.3 Require new development to locate and construct impervious surfaces, buildings, lawns, and sewage facilities so that they do not adversely affect the quality of nearby surface waters.
- Policy 4.3.4 Require all development activities that create stormwater runoff to treat the water to meet state water quality standards before discharge.
- Goal 4.4 Maintain the integrity and natural value of floodplains, and manage floodplains through non-structural means.
- Policy 4.4.9 Make structural alterations to natural bodies of water only where necessary to restore natural system functions.
- Goal 4.8 Avoid adverse impacts to the natural functions of the region's wetlands or surface water systems from development and redevelopment.
- Policy 4.8.5 Prohibit new interference to the functions of coastal and riverain wetlands as integrated natural systems. Restore ecological functions of wetland systems where they have been degraded or destroyed.
- Policy 4.8.6 Design new transportation and utility facilities to avoid interference with the natural operation of wetlands, and in a sufficient size and height to accommodate the movement and migration of wildlife through the area.
- Policy 4.8.11 Reserve an upland buffer zone adjacent to wetlands, lakes, rivers, streams, springs and sinks as a water quality, quantity, and habitat protection buffer within which primary and secondary impacts to the wetland from activities such as drainage, filling, pesticide application, excavation, and construction are restricted. Define these buffer zones and the limits of all impacts to each feature's and buffer's function in a coordinated effort lead by local governments with assistance from the water management districts and the Departments of Environmental Protection and Community Affairs.
- Goal 4.9 Maintain and enhance the habitat and populations of native species of plants and animals.
- Policy 4.9.4 Encourage the use of native plants for landscaping.
- Goal 4.10 Reduce or mitigate the loss of habitat for endangered or threatened species in the region.

- Goal 4.11 Reduce the number of new development and redevelopments which adversely affect the environmental quality, physical character, or natural function of the region's exceptional geographic features and environmentally sensitive areas.
- Policy 4.11.5 Development adjacent to preservation and conservation areas should be compatible with the purposes of those areas. Where needed, the more recent development should provide buffers for previously existing land uses.
- Policy 4.12.5 Maintain reasonable public access at major lakes and rivers; choose new boat ramp locations that will minimize environmental disturbance.
- Policy 4.12.8 Consider utility line rights-of-way and abandoned railroad rights-of-way for nature trails, bicycle paths, and wildlife passageways.
- Policy 4.12.9 Retain public ownership and control of the Cross-Florida Greenway and use it for recreation, wildlife habitat, and for public purposes compatible with the foregoing.
- Policy 4.12.10 Cooperate with other local governments, regional, and state agencies, and non-profit trail organizations to develop a region-wide hiking and bike path system that connects urban areas with rural recreational areas.
- Policy 4.13.2 Cooperate with farmers and ranchers to encourage the use of best management practices in silviculture and agriculture to enhance wildlife habitat, conserve water, reduce erosion, and reduce the amount of pollutants entering the environment.

Conditions:

- 1) The applicant should engage the site design process to still further reduce the amount of impervious surface area created by the main plant and associated facilities. Action beyond minimum standards necessary for permit approvals is meaningful. Because of the quantity of mitigation options available, environmental resource permitting should coordinate mitigation planning and measurement efforts to ensure maximum protection for regional significant waters and water bodies.
- 2) Environmental resource permitting conditions should require all types of wetland mitigation to be comprehensively examined as part of a Wetland Mitigation Plan (WMP) accompanying development. Off-site action, including wetland mitigation banking, should be evaluated as one appropriate response to a range of impacts.

- 3) Water quality impacts may include change in surface drainage patterns, introduction of potential contaminants that have not been present in substantial volume with prior land uses, erosion and sedimentation impacts, and increased usage (with subsequent discharge) of chemical contaminants. The applicant should recognize potential for impact and cooperate with all other public and private stakeholders. Mitigation of regional water quality impacts should be coordinated between regulatory agencies and all interested public entities. Such action should be mandated through permitting to include general stakeholder participation in the watershed management process as much as those specific actions to meet the requirements of local government codes and planning initiatives like springs protection.
- 4) Impacts to the floodplain, resulting from development, should be mitigated through permitting to accomplish no net change in conditions related to the timing and magnitude of flood flows.
- 5) Proposed monitoring programs in coastal waters for thermal, water quality, aquatic ecosystem impacts or other individual and cumulative impacts stemming from project development should provide the information necessary to determine what, if any, impact plant construction and operation would have on the long-term economic viability of the region's aquaculture industry.
- 6) All impact monitoring data should be made publicly accessible when first available. If it can be demonstrated that mitigation approved through power plant certification are failing to safeguard the existing conditions necessary for regional aquaculture or preservation of regionally significant natural resources, then the applicant should cooperatively work with all parties to find new mitigation solutions.
- 7) Environmental resource permitting conditions should guide subsurface explorations adequate to ensure that sinkhole formation will not stem from changes in drainage or other conditions owing to project development.
- 8) Environmental resource permitting should require wildlife management planning sufficient to coordinate interface between regionally significant listed species and proposed facilities, to identify where impacts to listed species or habitat areas will occur, how monitoring of impact will happen, and to implement effective mitigation.

FINAL RECOMMENDATION

The goals and policies given above have organized final agency review for this portion of the application pursuant to the *Strategic Regional Policy Plan for the Withlacoochee Region*. The object of final agency review has been to determine if the site certification application for the main plant and associated facilities is consistent with the requirements of the SRPP. Having noted areas of prospective adverse impact and the economic benefits of construction, a final recommendation on this portion of this site certification application may be given.

WRPC Staff note again that electrical power generation plants are listed as having regionally significant status. Therefore, provided the applicant satisfies or exceeds the conditions given herein to maintain consistency with the SRPP, WRPC staff does not object to approval to locate the main plant and associated facilities at the subject location through promulgation of the *Florida Electrical Power Plant Siting Act*. Furthermore, the applicant requires no variance, exemption, exception, or other relief from this agency to proceed further in the certification process.

Staff very much appreciates the opportunity to participate in the process.

Thank you.

Sincerely,



Michael R. Moehlman
Executive Director
Withlacoochee Regional Planning Council

MRM/dpc

Distribution

Douglas S. Roberts, Hopping, Green, & Sams, P.A.
Carolyn Raepple, Hopping, Green, & Sams, P.A.
Virginia Dailey, Hopping, Green, & Sams, P.A.
R Alex Glenn, Progress Energy Florida, LLC
Suzanne Ennis, Progress Energy Florida, LLC
Emily Norton, Florida Fish and Wildlife Conservation Commission
Mary Ann Poole, Florida Fish and Wildlife Conservation Commission
Kelly Martinson, Department of Community Affairs
Kimberly Menchion, Department of Transportation
Katherine Fleming, Florida Public Service Commission
Josefina Tamayo, Department of Health
Lucy Schneider, Department of Health
Kealy West, St. Johns River Water Management District
Marti Moore, Southwest Florida Water Management District
Fred Landt, Attorney for the Withlacoochee Regional Planning Council
Gerald Livingston, Attorney for the East Central Florida Regional Planning Council
Donald D. Conn, Attorney for the Tampa Bay Regional Planning Council
Anne Bast Brown, Office of the Levy County Attorney
Robert Battista, Office of the Citrus County Attorney
Garth C. Coller, Office of the Hernando County Attorney
Renee Lee, Office of the Hillsborough County Attorney
Sanford A. Minkoff, Office of the Lake County Attorney
Thomas L. Wright, Office of the Marion County Attorney
Donald S. Crowell, Pinellas County Attorney's Office
Michael Craig, Polk County Attorney's Office
Derrill McAteer, Attorney for Sumter County
Norm Fugate, Attorney for the Town of Inglis
Fred Morriston, Attorney for the City of Leesburg
Thomas Trask, Attorney for the City of Oldsmar
Kenneth Buchman, Attorney for Plant City
Janice McLean, Office of the City Attorney – City of Tampa
Jerri A. Blair, Attorney for the City of Wildwood
Kevin Smith, Citrus County Planning Department
Ron Pianta, Hernando County Planning Department
Shenley Neely, Levy County Planning Department
Dwight Ganoe, Marion County Planning Department
Brad Cornelius, Sumter County Planning Department
Harold A. Horne, City of Dunellon
Cyndi Mulkey, Siting Coordination Office
Ann Seiler, Siting Coordination Office

Appendix II-7
Department of Transportation Agency Report



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

December 15, 2008

Mr. Mike Halpin, Program Administrator
Florida Energy and Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, Florida 32399-2400

Re: Progress Energy Florida Levy Nuclear Project Units 1 & 2
Power Plant Siting Application No. PA08-51
DOAH Case No. 08-2727EPP
DEP Case No. 08-1621

Dear Mr. Halpin:

Enclosed is the Florida Department of Transportation's Agency Report on the power plant portion of the Progress Energy Florida Levy Nuclear Project Units 1 & 2 Power Plant Siting Application.

If there are any questions, please call either me at (850) 414-5293 or Connie Mitchell, Siting Coordinator, at (850) 414-4572. Thank you.

Sincerely,

Kimberly C. Menchion
Assistant General Counsel

Enclosure

cc: All Parties of Record
Connie Mitchell

**FLORIDA DEPARTMENT OF TRANSPORTATION
LEVY COUNTY NUCLEAR POWER PLANT
DECEMBER 2008**

SECTION I. CORRIDOR LOCATION ISSUES

No outstanding issues.

SECTION II. OUTSTANDING SUFFICIENCY ISSUES

No outstanding issues.

SECTION III. VARIANCES TO STANDARDS

No variances requested.

SECTION IV. SPECIAL USE PERMISSIONS

No special use permissions requested.

SECTION V. RECOMMENDATION FOR CERTIFICATION

The Florida Department of Transportation recommends the certification of the proposed power plant. This recommendation is made contingent upon the conditions of Section VI being addressed/met.

SECTION VI. PROPOSED CONDITIONS OF CERTIFICATION

6.1 REQUEST FOR RESTRICTED AREAS

No requests for restricted areas are necessary.

6.2 POST CERTIFICATION REVIEW ITEMS

Access Management to the State Highway System: Any access to the State Highway System will be subject to the requirements of Rule Chapters 14-96, State Highway System Connection Permits, and 14-97, Access Management Classification System and Standards, Florida Administrative Code.

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, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

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, Florida Administrative Code; Florida Department of Transportation's 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 Florida Department of Transportation's Project Development and Environmental Manual.

U.S. 19/SR 55 and U.S. 41 have been identified as Florida Intrastate Highway System (FIHS) and Strategic Intermodal System's (SIS) facilities. The placement of the transmission line and pipeline should take into consideration the planned widening of these facilities. The cost of relocating or reconstructing the transmission line and pipeline will be borne by the applicant to the extent required by Section 337.403, Florida Statutes, and Rule Chapter 14-46, Florida Administrative Code.

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

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, Florida Administrative Code, including the attainment of any permit required thereby.

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 Florida Department of Transportation 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 Florida Department of Transportation jurisdiction, application will be made by submitting Florida Department Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

Level of Service on State Roadway Facilities: All traffic impacts to State roadway facilities on the FIHS or the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to the requirements of the level of service standards adopted by local governments pursuant to Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code, in accordance with Section 163.3180(10), Florida Statutes. All traffic impacts to State roadway facilities not on the FIHS, the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to adequate level of service standards established by the local governments.

Railroad Spur: Any newly proposed railroad crossing must comply with the criteria established in Rule Chapter 14-57, Florida Administrative Code (FAC). The following criteria must be considered in opening a new public highway-rail grade crossing on any state, county, or city roadway:

1. Safety.
2. Necessity for rail and vehicle traffic.
3. Alternate routes.
4. Effect on rail operations and expenses.
5. Closure of one or more public railroad-grade crossings to offset opening a new crossing.
6. Design of the grade crossing and road approaches.
7. Presence of multiple tracks and their effect upon railroad and highway operations.

The installation of a new public highway-rail grade crossing must have as a minimum roadside flashing lights and gates on all roadway approaches to the crossing. The installation of the crossing surface and signals must be in accordance with current Manual of Uniform Traffic Control Devices (MUTCD), Federal Railroad Administration Rules and Regulations, American Association of State Highway and Transportation Officials (AASHTO) Policy, and the Department's Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (Florida's Green Book).

Areas of concern to be considered in determining the rail crossing location are as follows:

- Roads crossing the tracks at a skewed angle or where the track is curved or superelevated;
- Impaired sight distance for motorists and rail engineers;
- Highway intersections within 75 feet of the crossing which create a greater potential for accidents and create minimal vehicle storage distance;
- Crossings that are blocked for long periods of time;
- Switching movements or turnouts;
- Different elevations of tracks.

SECTION VII 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, Florida Administrative Code; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on

the State Highway; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; and Florida Department of Transportation's Utility Accommodation Manual, whichever is more stringent.

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

- Placing a bulletin board on site for car pooling advertisements.

- 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, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

Appendix II-8

Department of Agriculture and Consumer Services Letter



Florida Department of Agriculture and Consumer Services
CHARLES H. BRONSON, Commissioner
The Capitol • Tallahassee, FL 32399-0800
www.doacs.state.fl.us

Please Respond to:
Division of Aquaculture
Shellfish Environmental Assessment Section
Big Bend Gulf Coast District Office
11350 SW 153rd Ct.
Cedar Key, Florida 32625
Phone: 352-543-5732
Fax: 352-543-5088

December 15, 2008

Cindy Mulkey
Engineering Specialist
Department of Environmental Protection
Siting Coordination Office
Mail Station 48
3800 Commonwealth Blvd.
Tallahassee, Florida 32399
Phone: 850-245-2175
FAX: 850-245-2020

Re: National Pollutant Discharge Elimination System (NPDES) Industrial Waste
Application for the proposed nuclear power plant in Levy County, Florida Power
Corporation, doing business as Progress Energy Florida, Inc.

The proposed project consists of the construction and active use of two nuclear powered reactors for electrical power generation for retail sale. The location of the proposed project is not within the survey study areas of the #34 Withlacoochee Bay or #37 Citrus County Shellfish Harvesting Areas (SHA)s. However, the proposed surface water discharge is in the “unclassified” waters adjacent to the SHA’s as shown on the attached figures of shellfish harvesting area classifications (Figure 1A and 1B). The basis for the following comments by the Shellfish Environmental Assessment Section is solely on shellfish water classifications.

The permit application proposes to discharge cooling tower waters, wastewater, and stormwater by linking to an existing surface water discharge located approximately at latitude 28°58’00”N, longitude 82°41’40”W. The existing discharge flows into Class III marine surface waters of the Gulf of Mexico, a polygon approximately three miles wide at the coast and approximately two miles wide at the natural resource boundary line nine miles offshore, and accommodates the Progress Energy Crystal River Electric Generating Complex (Crystal River Plant Unit 1, 2 and 3 - (NPDES) Permit Number FL0000159, Crystal River Plant Unit 4 and 5- (NPDES) Permit Number FL0036366).



Florida Agriculture and Forest Products
\$97 Billion for Florida’s Economy

Adjacent to the Class III polygon on the north and south, are the Class II shellfish harvesting waters of #34 Withlacoochee Bay and #37 Citrus County respectively.

The city of Crystal River and Citrus County has invested greatly to eliminate surface water discharges from domestic wastewater facilities. The city has also made significant improvements to the stormwater infrastructure over the past ten years.

Regarding the disposal of treated domestic sewage, a land based spray field irrigation system would be much more appropriate for the protection of water quality in shellfish harvesting areas. Best management practices (BMPs) should be implemented to minimize the impacts of stormwater discharges.

Reclassification of the shellfish harvesting areas will not be necessary if the project is built as proposed. However, if the proposed surface water discharge negatively impacts either of the two SHAs by degrading water quality, reclassification of the affected SHA(s) could be required in the future resulting in a loss of harvestable state shellfish waters.

Thank you for the opportunity to comment. Please call me at the contact info provided at top of page 1 if you need additional information.

Michael A. Kuhman

Michael A. Kuhman
Environmental Specialist II

cc: David Heil
Chris Brooks
Mark DeHaven

Figure 1A: #34 Withlacoochee Bay Shellfish Harvesting Area and existing surface water discharge site location.

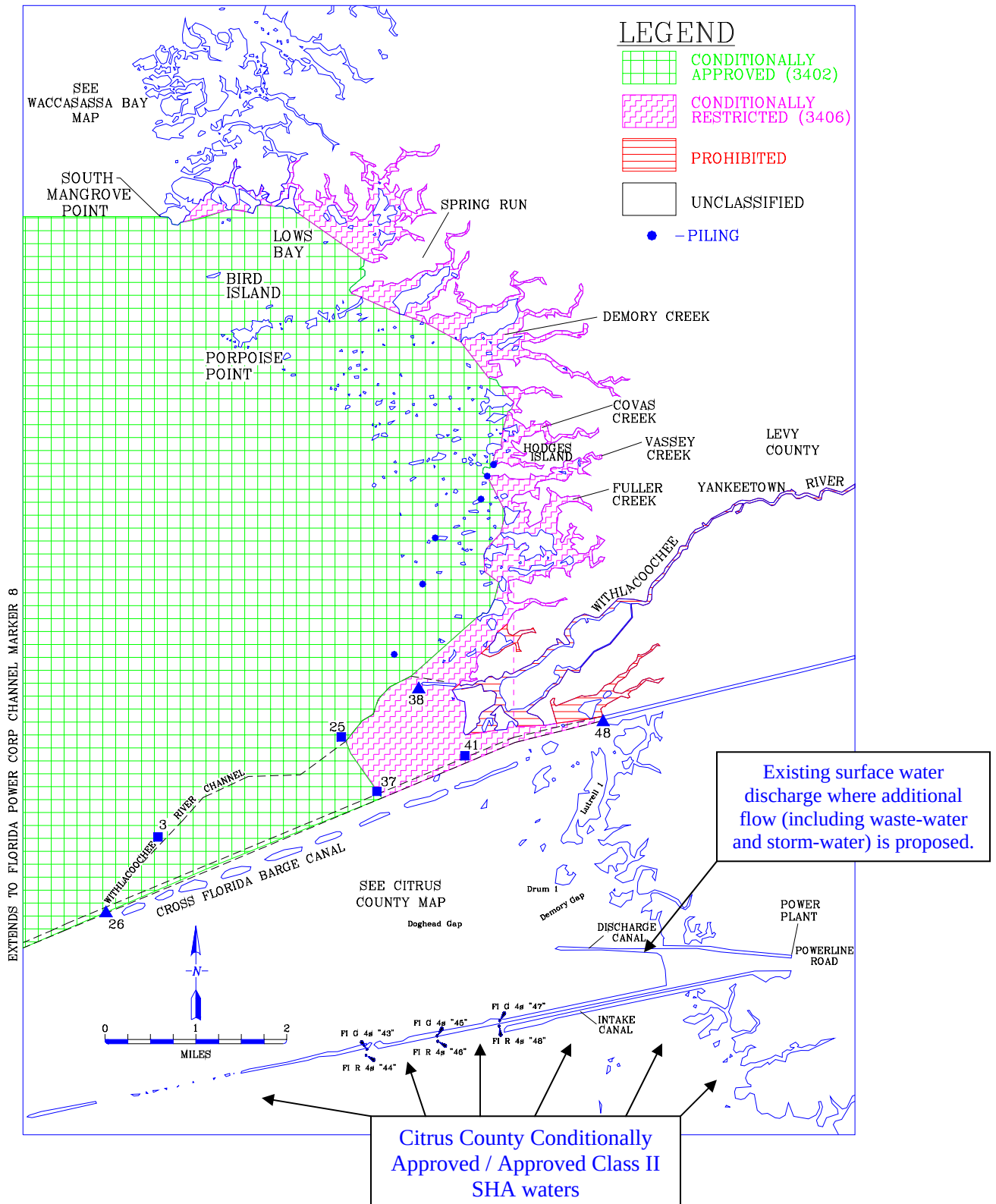
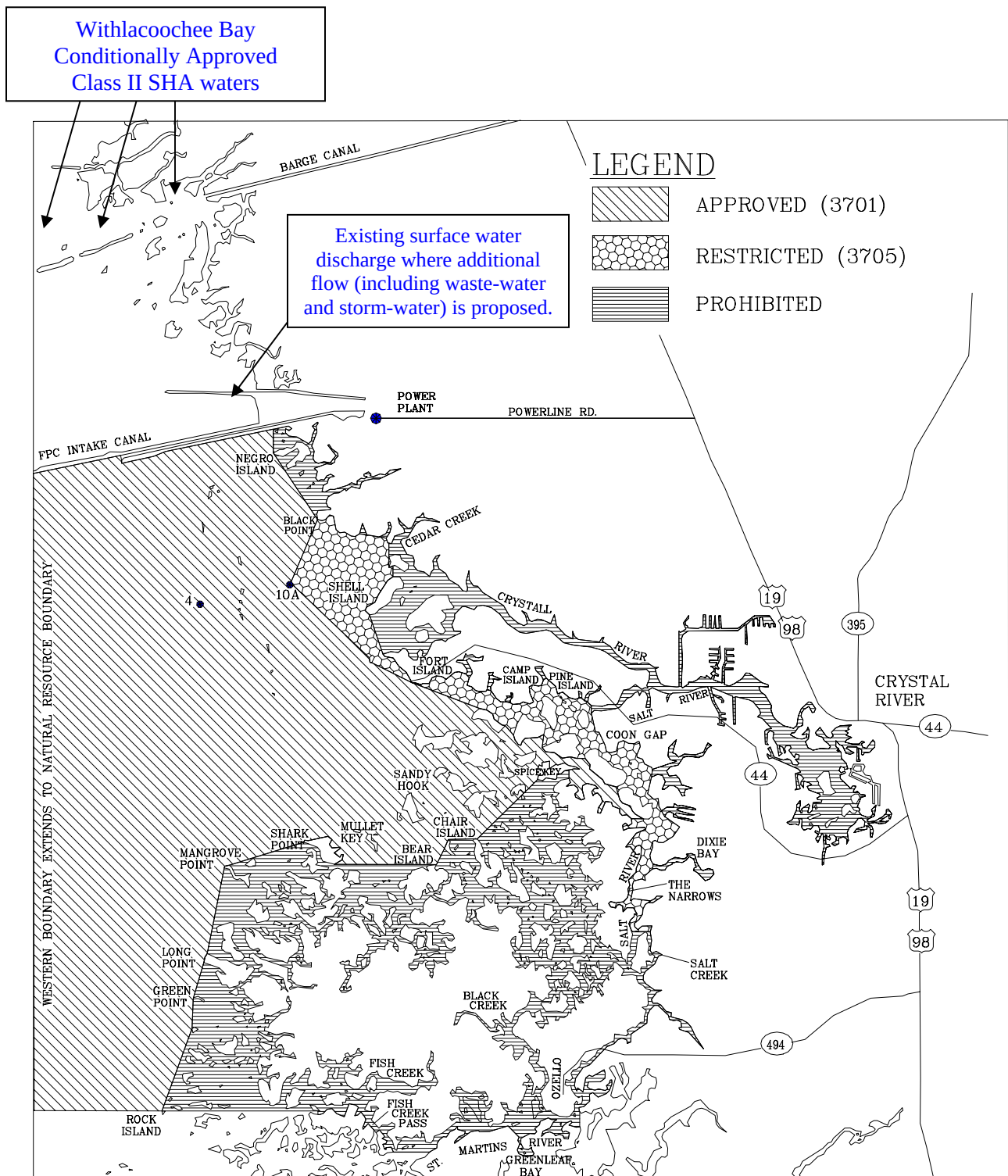


Figure 1B: #37 Citrus County Shellfish Harvesting Area and existing surface water discharge site location.



Appendix II-9

Withlacoochee Area Residents Submittal to SWFWMD

emailProgress Energy SCA - SWFWMD submissions

From: 2buntings [2buntings@comcast.net]
Sent: Sunday, December 14, 2008 7:38 PM
To: mark.hammond@swfwmd.state.fl.us
Cc: Mulkey, Cindy; richard.owen@watermatters.org; Sole, Michael;
ron.shultz@myfloridahouse.gov; BonnieD@hgslaw.com;
Karen.Folden@hklaw.com; Gary Bartell; Gary Maidhof;
annebrownlevy@bellsouth.net; dean.charles.web@flsenate.gov;
cbrennan@chronicleonline.com; Brown, Lisa L.
Subject: Progress Energy SCA - SWFWMD submissions
Attachments: Permit modification - PEF Levy - SWFWMD.doc

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: High Priority

Dear Mr. Hammond,

The attached document is forwarded to reiterate and detail our organization's position on the subject application. It is recognized that the deadline for the District's submission is upon us, however it is deemed appropriate to provide this information to the record regardless. Our intent goes to a very singular point, that of providing the maximum and best use of the State's resources for future generations.

I was contacted by counsel for the applicant Saturday afternoon (12-13-08) and we discussed these points at some length.

If you have any questions, feel free to contact me at any time.

Sincerely,

Dan Hilliard, Pres.
Withlacoochee Area Residents, Inc.
352/447-5434

CC:

FDEP
Hon. Ron Schultz
Hon. Charles Dean
Holland and Knight, PA
Hopping, Green and Sam, PA
Levy and Citrus County Officials
Officers and Directors, Withlacoochee Area Residents, Inc.
Withlacoochee River Alliance
Citrus Chronicle

14 December 2008

SUBJECT: Request for Modification or Condition of Permit Inclusion – Progress Energy Levy County Nuclear Site Certification Application

Withlacoochee Area Residents, Inc. requests the Southwest Florida Water Management District make recommendation(s) to the Florida Department of Environmental Protection that the following modification or condition, **or both**, be applied to the above referenced permit. It is recognized that the following verbiage may be not be wholly correct in a legal context. Revision which provides for intent is acceptable.

Modification: That the site proposed by the applicant for water intake for the CWS in the Cross Florida Barge Canal (CFBC) be revised to an appropriate point west of the Withlacoochee River channel as it existed prior to the construction of the CFBC.

Condition of the Permit: The permittee shall, at such time as deemed appropriate by the State, fully cooperate with any projects required for the maintenance, preservation or enhancement of surface waters of the State, to include modifications of intake structure used for cooling water systems in the vicinity of the Cross Florida Barge Canal.

It is entirely possible that there are provisions of Florida statute or code which preclude the necessity for such action by the State in this process. We are not aware of their existence. On assumption that such provisions do not exist, approval of the application as submitted, without the aforementioned specifications, would appear to put the State in a curious position of sanctioning a permit which will provide intractable obstacles to compliance with the cited statute and code below.

Background:

Withlacoochee Area Residents, Inc. submitted to SWFWMD in April of this year, a document proposing to impound the Cross Florida Barge Canal and reconnect the bisected segments of the Lower Withlacoochee River. The motivation for this submission was founded on two elements of need and one for resource preservation to meet future needs.

1. RESOURCE PRESERVATION - A substantial renewable source of fresh water to meet future demands may be created by impounding the CFBC. Projected population increases in this particular region of Florida over the next five decades are substantial.
2. NEED - State permitted activities at the Cemex Inglis Quarry, which is in close proximity to the CFBC, have facilitated the intrusion of salt water into an isolated island aquifer upon which multiple residents (250 + properties) are dependent for potable water. It is concluded that isolation of this Quarry from close proximity to salt water in the CFBC by impoundment of that water body would address this issue.
3. NEED – Stabilization or reversal of ongoing degradation of the Lower Withlacoochee River (OFW) due to reduced flows caused by the CFBC. In part, these circumstances and alternative solutions are documented by the State within the following documents:

-Management Plan, Cross Florida Greenbelt State Recreation and Conservation Area – Vol. 1, 30 August 1992

-Lake Rousseau Operations and Management Study, February 1989 - SWFWMD

-Inglis Lock and Rehabilitation and New Smaller Lock Study, Vol. 1&2 – Jan. 2002 – Bergman Associates

-*West Terminus-Cross-Florida Greenway Assessment (Lower Withlacoochee River Restoration Alternatives Feasibility Study*, Vol. 1&2 – URS Corporation
-*Withlacoochee River, Comprehensive Watershed Management Plan* – 2001, SWFWMD
-*Cross Florida Greenway: Watershed Evaluation of Alternative Flow Scenarios Using Hydrodynamic Models*, 2007 – Janicki Environmental Associates
-*Managing our Ecosystems*, Dr. Richard Garrity, WREMI News, Vol. 1, Issue 2, 1998
-*Water Chemistry*, Vol. 1, Mote Marine Laboratory – October 1986

CONCLUSIONS:

These documents make clear the State is aware of the system problems and various solutions which have been recommended. Such evaluations and remedies are consistent with the citations below. The recommendation by Withlacoochee Area Residents, Inc., which calls for impoundment of the CFBC is consistent with provisions of FS 373.16 and is not addressed by these documents.

Therefore, we do not view issuance of the Permit to PEF for this project as consistent with the Florida Constitution or Statute, unless approval provides for the recovery, protection and development of these resources at a future date, and with the full cooperation of the Applicant.

Citations:

-**Florida Constitution, Article II**

SECTION 7. Natural resources and scenic beauty.--

(a) **It shall be the policy of the state to conserve and protect its natural resources** and scenic beauty. Adequate provision shall be made by law for the abatement of air and water pollution and of excessive and unnecessary noise and **for the conservation and protection of natural resources.**

-**Florida Statute 373.16 Declaration of Policy** (Extract)

(1) The waters in the state are among its basic resources. Such waters have not heretofore been conserved or fully controlled so as to realize their full beneficial use.

(2) The department and the governing board shall take into account cumulative impacts on water resources and manage those resources in a manner to ensure their sustainability.

(3) It is further declared to be the policy of the Legislature:

(a) To provide for the management of water and related land resources;

(b) To promote the conservation, replenishment, recapture, enhancement, development, and proper utilization of surface and ground water;

(c) To develop and regulate dams, impoundments, reservoirs, and other works and to provide water storage for beneficial purposes;

(d) To promote the availability of sufficient water for all existing and future reasonable-beneficial uses and natural systems;

(g) To preserve natural resources, fish, and wildlife;

(h) To promote the public policy set forth in s. 403.021;

(i) To promote recreational development, protect public lands, and assist in maintaining the navigability of rivers and harbors; and

(j) Otherwise to promote the health, safety, and general welfare of the people of this state.

-Florida Statute 380 (Extract)

380.021 Purpose.--It is the legislative intent that, in order to protect the natural resources and environment of this state as provided in s. 7, Art. II of the State Constitution, ensure a water management system that will reverse the deterioration of water quality and provide optimum utilization of our limited water resources, facilitate orderly and well-planned development, and protect the health, welfare, safety, and quality of life of the residents of this state, it is necessary adequately to plan for and guide growth and development within this state. In order to accomplish these purposes, it is necessary that the state establish land and water management policies to guide and coordinate local decisions relating to growth and development; that such state land and water management policies should, to the maximum possible extent, be implemented by local governments through existing processes for the guidance of growth and development; and that all the existing rights of private property be preserved in accord with the constitutions of this state and of the United States.

-Division 62 FAC:

62-43.010 Intent.

(1) In Section 373.451, F.S., the Surface Water Improvement and Management Act, the Legislature finds and declares that the water quality of many of the surface waters of the state has been degraded or is in danger of being degraded, and that it is the duty of the state through the state's agencies and subdivisions to enhance the environmental and scenic value of surface waters.

62-302.300 Findings, Intent, and Antidegradation Policy for Surface Water Quality. (Extract)

(1) Article II, Section 7 of the Florida Constitution requires abatement of water pollution and conservation and protection of Florida's natural resources and scenic beauty.

(10)(a) **The Department's rules** that were adopted on March 1, 1979, regarding water quality standards are designed to protect the public health or welfare and to enhance the quality of waters of the State. **They have been established taking into consideration the use and value of waters of the State for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.**

- (b) Under the approach taken in the formulation of the rules adopted in this proceeding:
1. The Department's rules that were adopted on March 1, 1979, regarding water quality standards are based upon the best scientific knowledge related to the protection of the various designated uses of waters of the State;
 - (11) Section 403.021, F.S., declares that the public policy of the State is to conserve the waters of the State to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife, fish and other aquatic life, and for domestic, agricultural, industrial, recreational and other beneficial uses.

62-302.700 Special Protection, Outstanding Florida Waters, Outstanding National Resource Waters. (Extract)

(1) It shall be the Department policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters. No degradation of water quality, other than that allowed in subsections 62-4.242(2) and (3), F.A.C., is to be permitted in Outstanding Florida Waters and Outstanding National Resource Waters, respectively, notwithstanding any other Department rules that allow water quality lowering.

(8) For each Outstanding Florida Water listed under subsection 62-302.700(9), F.A.C., the last day of the baseline year for defining the existing ambient water quality (paragraph 62-4.242(2)(c), F.A.C.) is March 1, 1979, unless otherwise indicated. Where applicable, Outstanding Florida Water boundary expansions are indicated by date(s) following "as mod." under subsection 62-302.700(9), F.A.C. For each Outstanding Florida Water boundary which expanded subsequent to the original date of designation, the baseline year for the entire Outstanding Florida Water, including the expansion, remains March 1, 1979, unless otherwise indicated.

(9) Outstanding Florida Waters:

(i) Special Waters

41. Withlacoochee Riverine and Lake System, including:

a. The Withlacoochee River downstream of State Road 33 in Lake County to eastern section line of Section 33, Township 16 South, Range 18 East; and

b. **The lower Withlacoochee River, from the Gulf of Mexico to the Cross Florida Barge Canal By-Pass Spillway, but not including that portion of the river between Lake Rousseau and the Cross Florida Barge Canal;**

-RULE 40D (FAC):

The District was created by Chapter 61-691, Laws of Florida, for purposes of flood control and water conservation. In 1972, the Florida Legislature enacted Chapter 373, Florida Statutes (F.S.), the Florida Water Resources Act of 1972 (Act), which greatly expanded the District's responsibilities from flood control to a full range of water management activities. The Act establishes an eleven member Governing Board that is responsible for the administration of all District programs.

The Act governs the regulation of all waters in the state, unless exempted by law. Waters in the state are defined to include all water on or beneath the surface of the ground or in the atmosphere. Generally, the objectives of the Act are:

1. To provide for management of water and related land resources;

2. To promote the conservation, development, and proper utilization of surface and ground water;

3. To provide water storage for beneficial purposes;

4. To prevent damage from floods, soil erosion, and excessive drainage;

5. To preserve natural resources, fish, and wildlife; and

6. To promote recreational development.

The Act provides for the establishment of permit programs for the regulation of consumptive use of water, well construction, surface water management systems, artificial recharge, and management of District lands and structures.

The District has implemented all the permitting programs authorized by the Act by adopting rules that are published as Chapter 40D, F.A.C.

Withlacoochee Area Residents, Inc.

PO Box 350

Inglis, Fl. 34449