



June 9, 2011

L-2011-217
10 CFR 50.4
EPP 3.2.2

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Environmental Protection Plan Report
316(b) Related Documentation

Pursuant to section 3.2.2 of the St. Lucie Environmental Protection Plan, Florida Power & Light Company (FPL) is forwarding the attached copy of 316(b) related documentation. The matter pertains to request for additional information (RFI #1) response addressing the Biological Plan of Study that was received by FPL on April 14, 2011.

Please contact Ron Hix at (561) 691-7641 if there are any questions on this matter.

Sincerely,

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/tlt

Attachment

001
NR

FPL - St. Lucie Plant
State IWW Permit No. FL0002208
Substantial Revision Application for Increasing Discharge Temperature
Response to RAI Addressing Biological Plan of Study
(VPPSL016)
13 Pages



June 9, 2011

Marc Harris, P.E.
Supervisor, Power Plant NPDES Permitting
Industrial Wastewater Section
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 3545
Tallahassee, Florida 32399-2400

RE: FPL - St. Lucie Plant
State IWW Permit No. FL0002208
Substantial Revision Application for Increasing Discharge Temperature
Response to RAI Addressing Biological Plan of Study

Dear Mr. Harris:

Attached please find the response to the Request for Additional Information (RFI) addressing the Biological Plan of Study that was received by FPL on April 14, 2011. This Biological Plan of Study is required by Administrative order AO022TL. The response to RFI questions addressing the Ambient Monitoring Report was submitted to FDEP on May 10, 2011.

If you have any questions or need additional information on this matter, please contact Ron Hix at (561) 691-7641.

Sincerely,

Richard L. Anderson
Site Vice President
St. Lucie Plant

VPPSL016

Enclosure: Substantial NPDES Permit Revision St. Lucie Plant Response to FDEP RAI #1

cc: FDEP – SE District – Linda Brien
FDEP – PSL Office – Terry Davis
FDEP – Tallahassee - Siting Office – Cindy Mulkey

Response Biological Plan of Study RFI No. 1

1. The biological plan of study (Biological POS) proposes to use side scan and high-frequency imaging sonar to identify the Representative Important Species (RIS). Although the Department appreciates the non-lethal technique, the Department questions the sensitivity of the method for the purpose of the study, a before-after extended power uprate (EPU) comparison. The Department believes that size-dependent, group level identifications described in the Biological POS would not provide the sensitivity necessary to detect changes post-uprate. If there is peer-reviewed literature that demonstrates the adequacy of the technique for this type of project, please provide that literature. The Department understands the urgency to begin data collection but due to the fish-oriented nature of the proposal, the Department recommends that Florida Fish and Wildlife have the opportunity to review and comment.

Response 1:

Based on comments obtained from Florida Fish and Wildlife Conservation Commission (FWC) biologists, and supported by a teleconference with and comments by FDEP biologists and the IWW permitting section on May 26, 2011, during which approaches to the Biological POS were discussed, FPL is withdrawing the previously submitted Biological POS and replacing it with an alternative Biological POS (Attachment 1). The alternative Biological POS being proposed eliminates the use of side scan and high-frequency imaging sonar and replaces it with more traditional biological data collection methods. This new plan will allow FPL to generate the level of species identification recommended by FDEP and FWC, expedite implementation of the study, and alleviate some of the potential data analysis shortfalls identified in the RFI. It will also allow some qualitative comparisons with results of previously conducted biological studies at the St. Lucie Plant.

2. The Biological POS names 11 individual fish taxa, 1 composite group of fish taxa (*Clupeiformes*), and the green sea turtle, *Chelonia mydas*, as the (RIS) and the focus of this study. As reported in the July 2010 316(b) Biological Characterization Report, four of these 11 RIS were not collected in Atlantic Ocean trawls in front of the intake structure and three of these RIS were not collected in the intake structure plankton tows conducted from January 2006 to October 2007. Although these few RIS may be known to occur in the area of the discharge, this most recent data indicates that they would not be detected with trawls or plankton tows. Is there recent evidence that these RIS are able to be and have been detected using the proposed sonar methods? The Department questions whether the proposed study, so narrowly focused on 12 species and 1 composite group, is robust enough to detect changes post-uprate.

Response 2:

The inclusion of some of the larger commercial and/or recreationally important species as RIS in the initial Biological POS are known to be relatively common in the vicinity of the plant but are not susceptible to capture using traditional techniques. Thus, they were not present in the July 2010 316(b) collections. It was believed that we would be able to quantify their abundance via the proposed side scan and high-frequency imaging sonar methods. The RIS included in the alternative Biological POS presented herein were among the most frequently captured species in historical 316(a)(b) netting studies at the plant.

The alternative plan also includes analysis of all species captured, not just the RIS, as well as all size classes. Proposed changes in sampling techniques coupled with data collected pre-and post-uprate from both impact and reference locations will allow a comprehensive and robust analysis of biological effects related to the uprate.

3. The Department agrees with the statement in Appendix A that study requirements “discourage the collection of masses of costly, unnecessary data.” The Department acknowledges the information summarized by the EAI 2001 report provided but also notes that the purpose of this Biological POS is to demonstrate protection of the balanced indigenous population due to the current EPU project (before and after). The Department agrees that the Biological POS should focus on the communities most likely to be impacted by the EPU. Thus, the Department agrees with the rationale presented in Appendix A of this Biological POS to exclude monitoring of the macro invertebrate benthic community and include monitoring the utilization of worm reef and hard bottom community, the green sea turtle, and the fish community. The Department disagrees with excluding other fish and certain groups of the planktonic community from the pre-uprate characterization.

Appendix A states that the “Plan will utilize Representative Important Species (RIS) to demonstrate that the EPU is not jeopardizing the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in the receiving water body.” Although each of the 13 RIS may fit the Interagency 316(a) Guidance Manual (EPA, 1977) description of RIS, the proposal makes no assurance that the 13 RIS chosen for this study adequately represent the diversity at all trophic levels, presence of necessary food chain species, or the non-domination of pollution-tolerant species elements of the administrative order. As demonstrated in the July 2010 316(b) Biological Characterization Report, the Atlantic Ocean is less diverse than an estuarine community such as the Indian River Lagoon. It is therefore expected that the level of effort to include an assessment of trophic levels and food chain species of fish would not be excessive or cost prohibitive.

The study already includes the collection of plankton samples for which to identify ichthyoplankton. Because collection of plankton is already planned and there is a lack of trophic data as mentioned above, it appears reasonable to request that other planktonic groups be included and identified, at minimum, to taxonomic groups (shellfish: shrimp, crab, lobster; Other) as was presented in Figure 4-12 of the July 2010 316(b) Biological Characterization Report for Atlantic Ocean plankton collected from intake canals.

Response 3:

All fish and invertebrate species captured by netting techniques proposed in the alternative Biological POS will be identified to the lowest practicable taxonomic unit and enumerated. Additionally, morphometric data will be collected for the RIS. Commercially or recreationally important decapod crustaceans (shellfish) present in ichthyoplankton samples will also be identified and enumerated. All of these data will be presented in the final Biological Report.

4. The Department has no issue with the proposed sampling design (frequency, period, sites, depths, number) as summarized in Table 2 of the Biological POS.

Response 4:

See Attachment 1 for the newly proposed sampling design.

5. The Department understands the urgency to begin data collection but due to the fish-oriented nature of the proposal, the Department has sent a copy of the Biological POS to the Florida Fish and Wildlife Commission (FWC). Florida Power and Light will be provided with FWC comments following completion of their review.

Response 5:

As discussed in the cover letter, FPL received comments from the FWC on May 19, 2011 and has incorporated those comments in the alternative Biological POS design.

ATTACHMENT 1
FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
BIOLOGICAL PLAN OF STUDY

This document has been prepared in support of Florida Power and Light Company's (FPL's) permit modification (NPDES Permit No. FL0002208) for the extended power uprate (EPU) for both Units 1 and 2 at the St. Lucie Plant on Hutchinson Island, St. Lucie County, Florida. It provides a detailed description of sampling activities and milestones.

Section 4.0 of the Interagency 316(a) Guidance Manual (EPA, 1977) defines Representative Important Species (RIS) as having one or more of the following traits: commercially or recreationally valuable; threatened or endangered; critical to the structure and function of the ecosystem; and/or a necessary component of the food chain for the preceding species. The Guidance Manual recommends that not more than 15 species be designated as RIS. Based upon the rationale contained in Appendix A to this Biological Plan of Study (Biological POS) and analysis of data generated during prior 316(a) demonstration studies at the St. Lucie Plant, the RIS listed below will be the focus of the study. The following species meet one or more of the criteria listed above and are representative of different levels of the water column from surface to bottom.

Representative Important Species

1. Atlantic croaker (*Micropogonias undulatus*) – This bottom associated species, which is part of the recreational fishery, was one of the most abundant species captured in both gill nets and trawls during prior studies at the plant. It spawns offshore and gravid females have been found throughout the year.
2. Spot (*Leiostomus xanthurus*) – This bottom associated species is a common species along the Atlantic coast and was one of the most abundant species captured in both gill nets and trawls during prior studies at the plant. Spawning occurs offshore during the late fall, winter, and early spring and peaks in December and January.
3. Sand Drum (*Umbrina coroides*) – This bottom associated species is a common species along the Atlantic coast and was one of the most abundant species captured in both gill nets and trawls during prior studies at the plant. Spawning occurs offshore during the late fall, winter, and early spring and peaks in December and January.
4. Pigfish (*Orthopristis chrysoptera*) – This bottom associated species is a common recreational species along the Atlantic coast and accounted for a large percentage of biomass for all species captured by trawl during prior studies at the plant. Spawning occurs offshore during the fall, winter, and spring.

5. Bluefish (*Pomatomus saltatrix*) – As for Spanish mackerel, this commercially and recreationally important schooling predator regularly occurs in coastal waters of east Florida, although it is present in greatest numbers during the fall and winter. It was captured in large numbers by gill net during prior studies at the plant. Gravid females were present throughout the year, although spawning within the south Atlantic fisheries stock occurs primarily in early summer along the continental shelf between northern Florida and Cape Hatteras.
6. Silver Seatrout (*Cynoscion nothus*) – This important recreational species, occurs in the vicinity of the plant and was relatively common in gill net and trawl collections during prior studies at the plant. Seatrout are bottom associated species that spawn offshore, and gravid females have been found throughout the year.
7. Kingfish/Whiting (*Menticirrhus* spp.) – Both the gulf (*M. littoralis*) and southern (*M. americanus*) kingfish occur in coastal waters over sandy bottom and were routinely captured in ocean beach seines during previous studies at the plant. Both species are taken in the recreational fishery. They typically spawn in the ocean during spring, summer and fall.
8. Florida pompano (*Trachinotus carolinus*) – This species is a commercially important and recreationally popular coastal species often found in small to large schools along sandy beaches. Florida pompano were often captured in beach seines during previous studies at the plant. This species primarily spawns in the spring and summer.
9. Spanish mackerel (*Scomberomorus maculatus*) – This schooling coastal species is both commercially and recreationally important in eastern Florida waters and was one of the most frequently caught species in gill netting operations conducted during previous studies at the plant. Although it occurs throughout much of the year, largest concentrations occur during the fall and winter, with gravid females being present primarily during the spring, summer, and fall. Spanish mackerel feed on a variety of clupeiform fish (herrings and sardines) which are extremely abundant in the nearshore waters off Hutchinson Island.
10. Clupeiformes – This group includes a variety of anchovies, herrings and sardines, the primary source of food for most of the commercially important piscivorous fish species that migrate through the area. Clupeiformes were numerically prevalent in both trawl and gill net sampling previously conducted at the plant.
11. Leopard Searobin (*Prionotus scitulus*) – The leopard searobin is a benthic oriented fish that is common over sandy substrates. It was one of the most frequently captured species in trawl sampling during previous studies at the plant. Individuals in spawning condition were captured in winter and spring.

12. Green sea turtle (*Chelonia mydas*) – The green sea turtle is federally listed as endangered. Juveniles are found in inland estuaries where they occupy and feed on submerged aquatic vegetation. They are also regularly found in the ocean where they feed on algae that colonize exposed hardbottom and worm reef. Large numbers of juvenile green turtles occur in the ocean in the vicinity of the St. Lucie Plant, as evidenced by their routine entrapment in the plant's cooling water intake system.

General Approach to Monitoring RIS

Prior 316(a) demonstration studies at the St. Lucie Plant involved extensive gill netting, trawling, and beach seines (Appendix Table A-1). The proposed Biological POS will replicate those traditional fisheries techniques to provide comparable contemporary data. Each of these techniques, as well as ichthyoplankton sampling, will be applied to three separate sampling sites within the study area, each measuring approximately 2.0 mi (3.2 km) on a side (Figure 1). Within the near and far field area surrounding the St. Lucie Plant's discharge structures, the first site will extend from shore along the axis of the Unit 2 multi-port diffuser. The north and south boundaries of the discharge site will each be located 1 mi (1.6 km) from the discharge structure and will parallel the center line. Within this bounded area, three unique habitat types are present, each with a unique benthic and fish fauna: the beach terrace (shallow sandy areas near shore in depths less than about 20 ft (6.1 m), an offshore trough (a relatively homogenous shell hash substrate in 35-40 ft (11-12 m), and an offshore shoal (sandy substrate that rises to a depth of approximately 20 ft (6.1 m; EAI, 2001).

Two additional sites of equivalent size to the discharge site and positioned similarly will serve as reference sites to document background conditions in areas unaffected by thermal discharges. One of these will be located approximately midway between the discharge site and the Ft. Pierce Inlet and the other midway between the discharge site and the St. Lucie Inlet (Figure 1).

Within each study site, precise sampling locations will be established during the initial sampling event. Candidate locations for nearshore hardbottom/worm reef habitat monitoring will be identified from recent aerial photography. In the field, a Global Positioning System (GPS) will be used to establish sampling points or transect end points, as applicable. Following the initial sampling event, all sampling locations will remain fixed for the remainder of the study period.

Baseline monitoring will commence as soon as practical after FDEP approval of the Biological POS and will continue until the EPU of Unit 1 has been completed (projected for fall of 2011). Two years of post-operational monitoring will commence once the Unit 2 EPU has been completed in the spring/summer of 2012. Depending on the results of baseline monitoring, and at the discretion of FPL, additional data collection may continue during the interim period between completion of the EPU for the two units. Data

collected during the study will be compared among study sites and years to discern any potential impacts related to the St. Lucie Plant EPU.

Monitored Variables

Relative Abundances and Seasonality of Juvenile and Adult Fish

Resident fish and shellfish within the study area will be identified and enumerated from collections made using gill nets, trawls, and beach seines (Table 1).

Gill Netting

The gill net will be 600 ft (183 m) in length and 12 ft (3.7 m) in depth, and will consist of 5 monofilament mesh panels, each 120 ft (66.6 m) long. Mesh size (stretch length) of the five panels is as follows: 2 1/2 in (64 mm), 3 in (74 mm), 3 1/4 in (84 mm), 3 3/4 in (97 mm), and 4 1/2 in (117 mm). The variable mesh allows the capture of numerous fish species of different size classes. The bottom line of the gill net will be weighted such that it rests on the bottom, and floats on the top line will suspend the net in the water column. The net will be fully deployed for 30 minutes under normal conditions, however shorter sets will be made when large numbers of fish are being captured. All soak times will be adjusted to a 30 minute set. The net will be tended at all times while in the water.

Gill net sampling will be conducted along three shore-perpendicular transects within each of the three study sites. Transect #1 will be located on the beach terrace in 10-20 ft (3.0-4.6 m) of water, Transect #2 will be located approximately 3,000 ft (914 m) from shore in water depths of 32-38 ft (10-12 m), and Transect #3 will be sited approximately 5,000-6,000 ft (1,524-1,829 m) from shore in water depths comparable to those at Transect #2. No netting will occur within the offshore shoal habitat, because comparable areas do not exist in all of the study sites, and the thermal plume from the St. Lucie Plant only occasionally flows due east over the shoal. Within the discharge study site, the three transects will be sited either north or south of the multi-port diffuser, depending on predominant current flow at the time of sampling (Figure 2). Transects will be located in similar water depths near the center of the two reference study sites. Sampling at all sites will be conducted during daylight hours once every other month.

All fish captured by gill net will be identified to species and counted. Additionally, a maximum of 25 representative specimens of each RIS captured will be measured (total length) and a batch weight for those specimens obtained. Data for all species will be presented as total number of individuals captured and average number of individuals captured per standard unit (e.g., 30 minutes) of soak time. Additionally, average length and weight will be provided for RIS.

All fish will be examined and identified in the field, and an effort will be made to return as many specimens as possible to the water alive. Records of the number of live and dead specimens captured and released will be maintained for each taxon and sampling

event. A voucher specimen(s) of each taxon taken by gill net will be archived, with the exception of large species (e.g., sharks, tarpon, snook, etc.) whose preservation/storage would be logistically difficult. Those larger species will be photographed in the field from sufficient diagnostic perspectives as to allow positive identification. Voucher specimens and photographs will be kept for a minimum of two years following completion of the study, unless otherwise directed by FDEP.

Trawling

Trawling will be conducted using a 16-ft (4.9-m) by 3-ft (0.9 m) semi-balloon bottom trawl, having a 0.5-in (12.7 mm) stretch mesh in the bag and 0.25-in (6.4-mm) stretch mesh in the cod end. The net will be towed at speeds of 2-3 knots for 15 minutes along each of 3 shore-parallel transects within each study site. The tows will intersect the approximate midpoint of each of the three gill net transects (Figure 2). Sampling at all sites will be performed at night once every other month. Captured fish will be processed as described above for gill netting. All invertebrates captured, will be counted and identified to the lowest practicable taxon. Additionally, any commercially important species (e.g., blue crabs, penaeid shrimp, lobster, etc.) will be measured (carapace width, post-orbital carapace length, or other appropriate measurement). Data for all species collected by trawl will be presented as total number of individuals captured and number of individuals captured per unit area of bottom towed. Additionally, average length and weight will be provided for RIS of fish, and average size (length, width, or other, as applicable) will be presented for commercially important shellfish.

Fish will be handled and documented as described above for gill netting, and voucher specimens will be maintained. To the extent possible, invertebrate identifications will be made in the field and specimens returned to the water alive. However, positive identifications for many invertebrate specimens, particularly juveniles and closely related species, may only be possible in the lab.

Beach Seining

Beach seining will be performed with a 100-ft (30.5-m) long by 6.0 ft (1.8-m) deep net having a stretch mesh of one inch (25 mm). The net will be heavily weighted along the bottom and will have extra floatation on the top so it maintains a hanging position under surf conditions. Three stations will be sampled within each study site, one near the center and the other two equidistant between the center and perimeter of the site, bottom conditions permitting (i.e. areas absent of potential obstructions; Figure 2). The rolled net will be carried out to a depth of approximately 4 ft (1.2 m), deployed parallel to shore and then pulled onto the beach with the ends perpendicular to shore. Sampling will be performed during daylight hours once every other month. Captured fish and invertebrates will be processed as described above for gill netting and trawling. Data for all species collected by seine will be presented as total number of individuals captured. Additionally, average length and weight will be provided for RIS of fish, and average

size (length, width, or other, as applicable) will be presented for commercially important shellfish.

Relative Abundance and Seasonality of Fish Eggs and Larvae

As a means of assessing plant effects on larval fish, ichthyoplankton samples will be collected every other month at each study site. Sampling will be conducted using paired bongo nets (20-cm diameter) having a 500 micron mesh. Each net will be equipped with flow meters to allow determination of volume of water sampled. Nighttime sub-surface tows will be made along two shore-parallel transects within each study site. This activity will be paired with trawl collections at Transects #1 and #3 (Figure 2). The nets will be towed for 15 minutes, unless net clogging requires shorter tow times. Once the nets are retrieved aboard the vessel, the contents from both cod ends of the bongos will be combined into a single sample and preserved in 5% buffered formalin for laboratory identification. Thus, there will be two samples per study site per sampling event.

In the laboratory, samples will be sorted to remove ichthyoplankton and decapod crustacean larvae. All fish eggs and larvae will be removed, enumerated, and identified to the lowest practicable taxonomic level. Any commercially or recreationally important crustaceans will also be identified to the lowest practicable taxon and enumerated. Target species include, but are not limited to, penaeid shrimp, blue crabs, stone crabs, lobster, and mole crabs. Sample splitting may be performed for crustacean larvae if they are present in large numbers or if large amounts of debris are present in the samples. Detailed records will be maintained to allow standardization of crustacean larvae counts when sample splitting is utilized. Data for all ichthyoplankton and commercially important decapods will be reported as the average number of individuals/taxon/per unit volume of water filtered.

For quality control purposes, 10% of all samples sorted for ichthyoplankton and decapod crustaceans will be resorted by the laboratory supervisor, or his/her assignee, to ensure that 95% of all targeted organisms have been removed. In the event that 95% efficiency is not achieved, all prior samples sorted by the original sorter will be resorted. A voucher collection will be maintained for each taxon identified from ichthyoplankton samples. Verification of voucher specimen identifications will be made by an independent expert. All reference specimens will be maintained for a minimum of two years following completion of the study, unless otherwise directed by FDEP.

Relative Abundance and Seasonal Utilization of Worm Reef and Hardbottom Habitat by Juvenile Green Sea Turtles

Sea turtle utilization of nearshore hardbottom and worm reef habitat will be assessed once every other month within each of the three study sites. Based on aerial photo interpretation, potentially suitable habitat will be mapped and a 0.6-mi (1-km) transect established within each study site. If insufficient habitat exists to allow a continuous 1-km transect, two or more smaller transects may be used to provide an equivalent length.

If insufficient habitat exists within the boundary of a particular study site to meet the target length of 1 km, additional survey locations will be established over suitable habitat as close to the study site as possible to make up the difference. Once established, these transects will be used for all subsequent monitoring.

Surveys will be performed from a boat equipped with an elevated platform capable of holding two observers. As the boat traverses the transect at a slow and constant speed (4.0 knots or less), one observer will look to port side and the other to starboard side. Observers will record and identify to species, when possible, any turtle observed surfacing along the transect. Each transect will be traversed a minimum of two times during each sampling event with at least a 30 minute separation between the two passes. Monitoring days will be selected for optimal viewing capabilities (e.g., sunny with calm seas). The order in which the three study sites are monitored will be randomly selected prior to each monitoring event. Data will be reported as the maximum number of green turtles sighted per pass and the number of turtles sighted per unit time of observation or linear distance.

Ancillary Water Quality

During each type of sampling event at a study site, water quality will be measured in-situ at the surface, mid-depth and bottom at three equally spaced points along each transect used for fish gill netting or trawling, as applicable. Monitored variables will include temperature, salinity, dissolved oxygen, conductivity, and pH. All instrumentation used for this monitoring will be calibrated and maintained in accordance with FDEP standard operating procedures (FDEP, 2008; Appendix B).

Data Analysis and Reporting

Data collected each year will be tabulated and graphically presented, as applicable. Analysis of variance (ANOVA) and/or other appropriate statistical tests acceptable to the Department will be used to determine if significant differences ($p \leq 0.05$) exist among study sites. Data will be presented in the context of the presence/absence of a balanced indigenous community of shellfish, fish, and wildlife in the vicinity of the St. Lucie Plant. Utilization of reference and discharge (impact) sites in concert with baseline and post-operational data will optimize the ability to draw inferences regarding EPU effect(s) on a balanced indigenous community. A final interpretive Biological Report evaluating all years of monitoring will be submitted to the Department for review and approval no later than 120 days after the approved Biological POS completion date, as scheduled below. The Biological Report will clearly describe all field and laboratory methods, including quality assurance (QA) measures (and results), utilized during the study. The report will also provide a tabular or graphic summary showing periods when different units were operating, pre- and post-EPU, in relation to when data were collected.

Adjustments to Plan of Study

Should initial sampling efforts suggest that modifications to sampling locations are needed, FPL will notify FDEP. Following completion of baseline monitoring, FPL will review the data to determine if other adjustments to the Biological POS are warranted. Any needed changes to methods, station locations, sampling frequency, data analyses or other aspects of the program, as summarized herein, will be made in consultation with the FDEP prior to initiation of post-construction monitoring.

Projected Schedule

The following schedule for initiation and completion of monitoring milestones is based on anticipated completion dates for the EPU of each unit at the St. Lucie Plant. Any change in completion dates shall be reflected in the schedule accordingly:

Activity	Start Date	Completion Date
Contractor Mobilization	July 15, 2011 ¹	August 15, 2011 ¹
Baseline Monitoring	August/September 2011 ¹	July 31, 2012 ²
Post-Construction Monitoring- 2 Unit operation	September 2012 ³	September 2014 ^{3,4}
Delivery of Biological Report to FDEP ⁵	October 1, 2014	January 31, 2014

¹ Dates are dependent upon FDEP approval and contractor selection process.

² Based upon the current operating schedule, the first St. Lucie unit may commence post-EPU operation prior to completion of baseline monitoring.

³ Dates are dependent upon EPU Project completion dates and FPL operating schedules.

⁴ AO requirement is to continue monitoring for no less than 24 months after initiation of two unit post-EPU monitoring.

⁵ AO requirement is to submit the Biological Report to the Department for review and approval no later than 120 days after the approved Biological POS completion date.

References

- EAI (Ecological Associates, Inc.). 2001. Survey of Aquatic Environments Potentially Affected by the Operation of the St. Lucie Power Plant, Hutchinson Island, Florida. Prepared by Ecological Associates, Inc., Jensen Beach, Florida, for Florida Power & Light Company. 41 pp.
- EPA (U.S. Environmental Protection Agency). 1977. Interagency 316(a) Technical Guidance Manual and Guide for Thermal Effects Sections of Nuclear Facilities Environmental Impact Statements. U.S. Environmental Protection Agency, Office of Water Enforcement, Permits Division, Industrial Permits Branch, Washington, D.C. 79 pp.
- FDEP (Florida Department of Environmental Protection). 2008. Standard Operating Procedures for Field Activities. DEP-SOP-001/01. Florida Department of Environmental Protection, Bureau of Assessment and Restoration Support, Standards and Assessment Section, Tallahassee, FL.