

## **PMTurkeyCOLPEm Resource**

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**From:** Williamson, Alicia  
**Sent:** Tuesday, October 07, 2014 3:22 PM  
**To:** Orthen, Richard (Richard.Orthen@fpl.com)  
**Cc:** TurkeyCOL Resource  
**Subject:** Turkey Point Supplemental Site Audit Plan Ocotber 2014.docx  
**Attachments:** Turkey Point Supplemental Site Audit Plan Ocotber 2014.docx

Rick  
Please give me a call when you receive this to discuss.  
Thanx  
Alicia

**Hearing Identifier:** TurkeyPoint\_COL\_Public  
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**Subject:** Turkey Point Supplemental Site Audit Plan Ocotber 2014.docx  
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**From:** Williamson, Alicia

**Created By:** Alicia.Williamson@nrc.gov

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Tracking Status: None

"Orthen, Richard (Richard.Orthen@fpl.com)" <Richard.Orthen@fpl.com>

Tracking Status: None

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**October 2014 Execution Plan  
for the Turkey Point Units 6 & 7 COL  
Supplemental Environmental Site Audit**

**October 14, 2014**



\_\_\_\_\_  
Environmental Project Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
DNRL Manager

\_\_\_\_\_  
Date

## **1. Project Description**

The combined license (COL) application for construction and operation of two AP1000 reactors at Turkey Point site near Homestead, Florida was submitted by Florida Power & Light Company (FPL) to the NRC on June 30, 2009. As part of the review of the COL application, the NRC is preparing an environmental impact statement (EIS). The U.S. Army Corps of Engineers, Miami Field Office (USACE) and the National Park Service (Biscayne Bay and Everglades) are cooperating agencies with the NRC in preparing the EIS.

## **2. Audit Basis**

Section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321 et seq.) directs that an environmental impact statement (EIS) be prepared for major Federal actions that have the potential to significantly affect the quality of human environment. The NRC implemented Section 102 of NEPA in 10 CFR Part 51. Further, in 10 CFR 51.20, the NRC has determined that the issuance of COL under 10 CFR Part 52 is an action that requires an EIS. As part of the review of this COL application, the NRC staff is preparing an EIS. This supplemental audit will assist the staff in determining whether proposed and suggested environmental changes at the plant site will require additional information to complete the EIS for the proposed units and/or alter conclusions submitted by FPL in the Environmental Report as part of the COL application.

### **Audit Scope and Objectives**

During the summer of 2014, Turkey Point Units 3 & 4 cooling canal system (CCS) experienced an algal bloom as well as an increase in water temperature and other constituents (i.e. salinity, nitrogen, etc.) within the system. These issues are thought to stem from below average rainfall in the area. As a result, FPL applied and was granted several emergency permits from the Florida Department of Environmental Protection (FDEP) and NRC to eliminate the algae bloom, reduce the CCS temperatures, as well as improve water quality of the CCS. As part of these emergency actions several permanent mitigation measures to “freshen” the CCS and reduce the risk of this type of event from occurring again was proffered. These permanent mitigation measures are currently being considered by State officials and could change the existing environment as documented in FPL’s COL application for Units 6 & 7. Therefore, the staff considers this information to be new and potentially significant information

As a result, the staff needs to review and evaluate hydrology, water quality, and aquatic and terrestrial biological resources to determine if additional information is needed to complete its environmental review and/or if these proposed new measures could alter conclusions submitted by FPL in the Environmental Report as part of the COL application

### **3. Information and Other Materials Necessary for the Audit**

NRC staff and contractors should review the following documentation prior to the audit

- Review applicable Environmental Standard Review Plan (ESRP) sections
- Review FPL's Environmental Report Rev.5 ( ML13357A435)
- Notice of Availability of NRC's Environmental Assessment (EA) –Finding of No Significant Impact dated July 31, 2014 and applicable supporting documentation referenced in EA (ML12074A251)
- Request to Reinitiate Informal Consultation for a Proposed License Amendment to Increase the Ultimate Heat Sink Temperature Limit at Turkey Point Nuclear Generating Unit Nos. 3 and 4. dated July 25, 2014 (ML14206A800)
- Biological Assessment on the American Crocodile (*Crocodylus acutus*) for Turkey Point Nuclear Generating Unit Nos. 3 and 4 Proposed License Amendment to Increase the Ultimate Heat Sink Temperature Limit dated July 25, 2014 (ML14206A806)\
- Florida Power & Light Company. Turkey Point Units 3 and 4; Wastewater Permit FL0001563; Request for Approval for the Use of Copper Sulfate, Hydrogen Peroxide, and a Bio-Stimulant in the Treatment and Control of Blue Green Algae in the Cooling Canal System dated June 18, 2014 (ML14206A806)
- Florida Department of Environmental Protection. Re: Florida Power & Light, Turkey Point, NPDES Permit FL0001562, 90-Day Trial Approval dated June 27, 2014 (ML14206A806)
- Emergency Final Order Issued to Florida Power and Light Company For Temporary Pump Installation and Water Withdrawal along and from the L-31E Canal System Part 1, Dated August 28, 2014 (ML14279A545)
- Emergency Final Order Issued to Florida Power and Light Company For Temporary Pump Installation and Water Withdrawal along and from the L-31E Canal System Part 2, Dated August 28, 2014 (ML14279A550)
- Florida Power and Light Company Turkey Point Plan PA 03-45D Units 3 & 4 Nuclear Plant; Unit 5 Combined Cycle Plant Request for Site Certification Modification Additional Consumptive Use letter dated September 5, 2014. Modification 1 ( ML14279A555)
- Florida Power and Light Company Turkey Point Plan PA 03-45D Units 3 & 4 Nuclear Plant; Unit 5 Combined Cycle Plant Request for Site Certification Modification Additional Consumptive Use letter dated September 5, 2014. Modification 2 (ML14279A566)

### Team Assignments

<b>Audit Area</b>	<b>Staff</b>
Project Management	Alicia Williamson- NRC Bob Bryce – PNNL Sandi McInturff - PNNL
Aquatic Ecology	Michael Masnik – NRC Jeff Ward - PNNL
Hydrology	Dan Barnhurst – NRC Lance Vail – PNNL Paul Thorne – PNNL
Terrestrial Ecology	Peyton Doub – NRC Corey Duberstein – PNNL
USACE	Megan Clouser
NPS	Bryan Faehner TBD

## 5. Sites Audit Schedule

The audit schedule is attached to this plan in Appendix A.

## 6. Deliverables

The primary deliverable for this audit will be a site audit report. If any additional information is determined, it will be documented in the site audit report.

## 7. Product

The staff will issue a site audit report. If any additional information is necessary or docketed, the staff will incorporate the information in its EIS.

# APPENDIX A

## Turkey Point October 2014 Supplemental Audit Schedule

### Tuesday, October 14, 2014

8:00 a.m. – 1:00 p.m.	Travel to Miami, FL
1:00 p.m. 2:00 p.m.	Lunch and Travel to FPL Daycare facility
2:30 p.m. – 2:40 p.m.	Meet at FPL Daycare facility
2:40 p.m. – 2:45 p.m.	Travel onto Turkey Point Site to Land Utilization Building
2:45 p.m. – 5:30 p.m.	Discussions with FPL on Audit Information Needs
5:30 p.m. – 5:45 p.m.	Summary and Conclude Discussion
6:00 p.m.	Adjourned

**Drive to Homestead, FL area hotel**

# **APPENDIX B**

## **Audit Information Needs**



**Information Needs for October 2014  
Supplemental Turkey Point Site Audit**

1. Provide a knowledgeable expert who can discuss the causes and impacts of the current algal bloom in the cooling canal system (CCS) for Units 3 & 4, and the associated water quality issues that have been observed in the cooling canals this summer. Also, be prepared to discuss the potential effects of suggested Florida Power and Light (FPL), Florida Department of Environmental Protection (FDEP), and South Florida Water Management District (SFWMD) mitigation measures to control the algal bloom. These mitigation measures were outlined in submittals from FPL to NRC for a license amendment to increase the discharge temperature in July and August 2014.
2. Provide a knowledgeable expert who can discuss the possible effects of the proposal to install additional groundwater wells and pump groundwater from the upper Floridan on the current and forecasted hydrological environment, including Biscayne aquifer, Biscayne Bay and other nearby major water features as noted in ER sections 2.3.1.2.3, 4.2 and 5.2. This includes effects in an environment where FPL would be operating the proposed Units 6 & 7 radial collector wells.
3. Provide a knowledgeable expert who can discuss whether pumping of additional water from the upper Floridan would affect any of the ER predictions of groundwater or surface water quality. This includes potential salinity changes in the Biscayne aquifer, Biscayne Bay or other nearby major water features in the vicinity of the proposed radial collect wells as noted in ER sections 2.3.1.2.3, 4.2 and 5.2.
4. Provide a knowledgeable expert who can discuss the potential effects of new proposed pumping from the upper Floridan on the upper Floridan aquifer and deeper aquifers, including the potential for upward migration of injected wastewater streams from the proposed Units 6 and 7.
5. Provide a knowledgeable expert to discuss if the current increase in salinity in the CCS will invalidate any of the predictions of salinities in the Biscayne Bay or other nearby major hydrologic features as noted in ER section 2.3, 4.2, and 5.2.
6. Provide a knowledgeable expert to clarify if onsite aquatic or terrestrial resources would be affected by the suggested mitigation measures as noted in Question 1.