



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 26, 2018

MEMORANDUM TO: Benjamin Beasley, Chief  
Environmental Review and NEPA Branch  
Division of Materials and License Renewal  
Office of Nuclear Reactor Regulation

FROM: Michelle Rome Moser, Biologist */RA/*  
Environmental Review and NEPA Branch  
Division of Materials and License Renewal  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JUNE 18, 2018, INTERAGENCY MEETING  
RELATED TO SUBSEQUENT LICENSE RENEWAL FOR  
TURKEY POINT NUCLEAR GENERATING UNIT NOS. 3 AND 4

On June 18, 2018, the U.S. Nuclear Regulatory Commission (NRC, the staff) participated in an interagency meeting related to Florida Power & Light Company's (FPL) recently submitted application to renew the operating licenses of Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point). Participating Federal, State, and local agencies included the National Park Service (NPS), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), National Oceanic and Atmospheric Administration (NOAA), Florida Department of Environmental Protection (FDEP), and Miami-Dade County Division of Environmental Resources Management (DERM). Enclosure 1 is the meeting agenda, including the names of all meeting participants. Meeting participants were provided the opportunity to comment on the meeting summary below.

The primary goals of the meeting included the following:

- Provide an overview of NRC's environmental review process related to FPL's application to renew the Turkey Point operating licenses.
- Gather input from other Federal, State, and local agencies regarding available environmental data and issues.

The purpose of the meeting was to exchange information among the various agencies. The NRC staff informed participants that the meeting would not be transcribed. The NRC staff explained that each agency would need to submit formal comments in order for comments to be specifically considered as part of the EIS scoping process.

The morning portion of the meeting included a boat tour of Biscayne Bay. Staff from NPS led the boat tour and provided background regarding the environment surrounding Turkey Point and Biscayne National Park. The NPS also provided an overview of public use of the park, historical environmental changes in Biscayne Bay, and current and future environmental concerns in Biscayne Bay.

During the afternoon the session, the NRC staff provided an overview of the subsequent license renewal process, several agencies presented environmental data and issues related to Turkey Point, and lastly, participants held a general discussion related to the environmental review. The major areas of discussion are summarized below.

### **I. NRC's Presentation on the Subsequent License Renewal Review Process**

The NRC staff described the proposed action, which includes continued operations at Turkey Point for an additional 20 years. The proposed action does not include any ground-disturbing activities. The NRC explained that the environmental review is conducted in parallel with a safety review and that the Commission reviews the results of both reviews prior to making a licensing decision.

The NRC staff explained that it conducts the environmental review in accordance with the National Environmental Policy Act of 1969, as amended (NEPA). Major activities during the environmental review include scoping, an environmental site audit, publication of the draft environmental impact statement (EIS), a public comment period, and publication of the final EIS. The NRC staff described its methodology for conducting an independent environmental review, including use of the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (NUREG-1437, Revision 1). The NRC staff explained that it prepares a supplement to the GEIS, or supplemental environmental impact statement (SEIS) to support license renewal. Lastly, the NRC staff discussed the differences between the environmental review for a new reactor license and for license renewal. For example, during the license renewal review at Turkey Point, NRC's regulations and policies do not require a mandatory hearing, whereas a mandatory hearing was required for the combined construction permit and operating license for the proposed Units 6 and 7 at the Turkey Point site. A contested hearing could be held for the proposed license renewal if contentions are submitted and admitted by the Atomic Safety and Licensing Board. A brief question and answer session followed the presentation.

### **II. Presentations from Other Agencies**

Several of the participating agencies provided an overview of available environmental data and concerns related to the proposed subsequent license renewal. EPA gave the first presentation and noted that many of the concerns were similar to those raised during the review of the construction permit and operating license application for the proposed new reactors, Units 6 and 7, at the Turkey Point site. Specific issues raised during the presentation included: impacts to groundwater due to the hypersaline plume, potential impacts to wetlands from groundwater pumping, and the impacts from sea level rise, storm surge, and flooding. In addition, EPA expressed its support of the NRC staff analyzing a cooling system alternative in the EIS.

NOAA provided an overview of the Florida Keys National Marine Sanctuary, which is a marine protected area jointly managed by NOAA and the State of Florida. The Sanctuary provides significant aquatic resources including coral reefs and shallow waters for fish and invertebrates to forage and use as nursery grounds. Card Sound lies within sanctuary boundaries and borders the southeastern edge of Turkey Point's cooling canal system. The sound supports critical refuge for commercially and recreationally important species. NOAA's Florida Keys National Marine Sanctuary is interested in ensuring that continued operation of Turkey Point does not impact the sanctuary's natural resources, including water quality within and adjacent to Card Sound.

NPS described the recreational and ecological importance of Biscayne National Park due to the abundance of seagrasses, corals, and fish that inhabit the area. NPS explained that such biota

depend upon good water quality to thrive, and in turn provide for recreational and commercial opportunities. NPS provided a historical perspective on changes to the cooling canal system at Turkey Point, namely a sharp change from an ecosystem with relatively clear water dominated by submerged aquatic vegetation to an ecosystem with turbid waters dominated by algae. NPS's main concerns regarding the proposed license renewal include impacts to habitat within the cooling canal system, leakage of hypersaline waters and tritium, and the potential for flooding and breaching of the cooling canal system levees due to sea level rise.

DERM expressed concerns related to changes in water quality within the cooling canal system. DERM stated that monitoring data show increased levels of tritium and nutrients within groundwater adjacent to the cooling canal system. DERM suggested that the NRC conduct a fate and transport analysis for the EIS. Another environmental concern stated by DERM was the potential for sea level rise, and associated storm surges, to flood the cooling canal system. DERM recommended that the NRC evaluate the long-term viability of the cooling canal system given expected sea level rise, water quality changes, and impacts to public health and safety from tritium migration. DERM also stated that it is especially concerned about any hypersaline plume or tritium that could travel west of the cooling canal system to where the Miami-Dade County well field is located.

### **III. Group Discussion**

The final portion of the meeting included a group discussion. The main topics included the following:

- The scope of the cumulative impacts analysis, which will discuss overlapping impacts with the proposed Units 6 and 7 at Turkey Point as well as other reasonably foreseeable future activities that may have overlapping impacts with the proposed subsequent license renewal.
- DERM described the methodology and data it has used to estimate the migration of hypersaline waters from the cooling canal system. DERM recommended that the NRC conduct its own estimates.
- NRC confirmed that FPL has not applied for another uprate for Units 3 and 4.
- Constraints for when a licensee can submit an application for subsequent license renewal.
- A discussion regarding NRC's approach for examining sea level rise, storm surge, and floods within its environmental and safety reviews.
- NRC's operational oversight, especially in regard to potential flooding and sea level rise.
- Differences among the NRC's, FDEP's, and DERM's regulatory authorities.
- FDEP confirmed that it was responsible for regulating discharges from the cooling canal system to groundwater and provided a brief summary of the status of its review of FPL's National Discharge Pollutant Elimination System Permit application.

- NPS recommended that NRC provide a clearer description of the role and regulatory authorities of NRC, FDEP, and DERM within the EIS.

The NRC staff concluded the meeting by thanking all the participants for their valuable input and stated that it looked forward to hearing from each Agency through formal scoping comments.

Docket Nos.: 50-250 and 50-251

Enclosure:

1. Meeting Agenda

SUBJECT: SUMMARY OF JUNE 18, 2018, INTERAGENCY MEETING RELATED TO  
SUBSEQUENT LICENSE RENEWAL FOR TURKEY POINT NUCLEAR  
GENERATING UNIT NOS. 3 AND 4

**E-MAIL:**

PUBLIC

EndangeredSpecies Resource  
RidsNrrDmlr Resource  
RidsNrrDmlrMrpb Resource  
RidsNrrDmlrMenb Resource  
RidsNrrPMTurkeyPoint Resource  
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MMoser NRR/DMLR  
GGrange NRR/DMLR  
DDrucker NRR/DMLR  
Almboden NRR/DMLR  
LJames NRR/DMLR  
CFairbanks NRR/DMLR  
BRogers NRR/DMLR  
MComar NRR/DMLR  
BHayes NRR/DMLR  
EOesterle NRR/DMLR  
BBeasley NRR/DMLR  
GWilson NRR/DMLR  
JDonoghue NRR/DMLR  
MWentzel NRR/DORL  
STurk OGC  
EHouseman OGC  
JWachutka OGC  
SBurnell HQ/OPA  
RHanna RII/OPA  
JLedford RII/OPA  
DAdams OCA  
DDecker OCA  
JPelchat RII/ORA  
RMusser RII/DRP  
LPressley RII/DRP

DOrr RII/DRP  
RReyes RII/DRP  
LBurhart OEDO  
ELea RII/ORA  
JBowen OEDO  
PCooper RII/DRS

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**ADAMS Accession No. ML18360A445**

**\*Concurred via email**

OFFICE	DMLR:MENB:AQ	DMLR:MRPB:BC
NAME	MMoser*	EOesterle* (JMitchell for)
DATE	12/26/18	12/26/18

**OFFICIAL RECORD COPY**

Interagency Meeting for the  
Turkey Point Nuclear Plant, Units 3 and 4, Subsequent License Renewal  
June 18, 2018

Participating Agencies:

U.S. Nuclear Regulatory Commission (NRC)  
U.S. National Park Service (NPS)  
U.S. Environmental Protection Agency (EPA)  
U.S. Fish and Wildlife Service (FWS)  
U.S. National Oceanic and Atmospheric Administration (NOAA)  
Florida Department of Environmental Protection (FDEP)  
Miami-Dade County Division of Environmental Resources Management (DERM)

Objectives

- Provide an overview of NRC’s environmental review for Florida Power & Light’s (FPL) application to renew the operating licenses at Turkey Point Nuclear Plant, Units 3 and 4 (Turkey Point).
- Gather input from other Federal, State, and local agencies regarding available environmental data and issues.

Location	Teleconference Line		
Biscayne National Park Dante Fascell Visitor Center Auditorium 9700 SW 328th Street Sir Lancelot Jones Way Homestead, Florida 33033	Call-in number:	866-423-6830	
	Participant Passcode:	8428925	
Participants			
<b>NRC:</b> Ben Beasley Kevin Folk William Ford Briana Grange Dan Orr John Pelchat Michelle Moser Michael Wentzel Lois James* Juan Uribe** Jeremy Wachutka**	<b>NPS:</b> Darrell Echolls Bryan Faehner Margaret Goodro Melody Hunt Joan Lawrence Astrid Rybeck Erik Stabenau	<b>EPA:</b> Cecelia Harper Richard Hall* Jamie Higgins* Ntale Kajumba* Gloria Diaz** Lloyd Generette** Karrie-Jo Shell** Kelly Fortin**	<b>DERM:</b> Janet Gil Lee Hefty Luis Otero Lisa Spadafina Pamela Sweeny Lorna Bucknor* Wilbur Mayorga* Michael Spinelli*
<b>NOAA:</b> Nancy Diersing Sarah Furtak** Jocelyn Karazsia**	<b>FWS:</b> Lindsay Nester Jose Rivera**	<b>FDEP:</b> Jennifer Smith	<b>Pacific Northwest National Laboratory:</b> Philip Meyer Rajiv Prasad

\*participation in the afternoon meeting portion only

\*\*participation by phone in the afternoon meeting portion only

## **Agenda**

10:30 am Boat tour

12:00 pm Lunch

1:00 pm Presentations

- I. Introductions (all) (5 minutes)
- II. Purpose/goals of the meeting (NRC) (5 minutes)
- III. NRC: Overview of the environmental review (30 minutes)
  - a. Overview and scope of the environmental review for subsequent license renewal
  - b. Distinctions from the environmental review for new reactors
  - c. Question and answer session
- IV. NPS Presentation (10 minutes)
- V. EPA Presentation (10 minutes)
- VI. NOAA Presentation (10 minutes)
- VII. FDEP Presentation [pending] (10 minutes)
- VIII. DERM Presentation (10 minutes)

2:30 pm Break

2:45 pm Group Discussion