



Saint Lucie Units 1 and 2 Subsequent License Renewal Application

Environmental Pre-Application Meeting May 20, 2021



Agenda

Opening Remarks

- NRC
- Florida Power & Light (FPL)

Background

Discussion Items

Lessons Learned

Closing Remarks

- FPL
- NRC

Opening Remarks

- **NRC**
- **FPL**
 - PSL SLR ER Project Team
 - William Maher, Senior Project Director
 - Rick Orthen, Environmental Licensing Lead
 - Steve Franzone, Licensing Manager
 - Paul Atkinson, Site SLRA Lead
 - Tom Slavonic, ER Project Manager (ENERCON)
 - Rachel Turney-Work, ER Technical Lead (ENERCON)

Background

- Two Combustion Engineering closed-cycle PWRs
- 3,020 MWt/unit (11.85% EPU 2012)
- Gross Capacity:
 - Unit 1: 1,052 MWe/unit
 - Unit 2: 1,072 MWe/unit
- IRL's issued 10/2/2003
- Capital improvements include uprate & efficiencies since initial LR
- No refurbishment anticipated for subsequent period of extended operation (SPEO)

St. Lucie Nuclear Plant

	OLs	40 Yrs	60 Yrs	80 Yrs
Unit 1	1976	2016	2036	2056
Unit 2	1983	2023	2043	2063



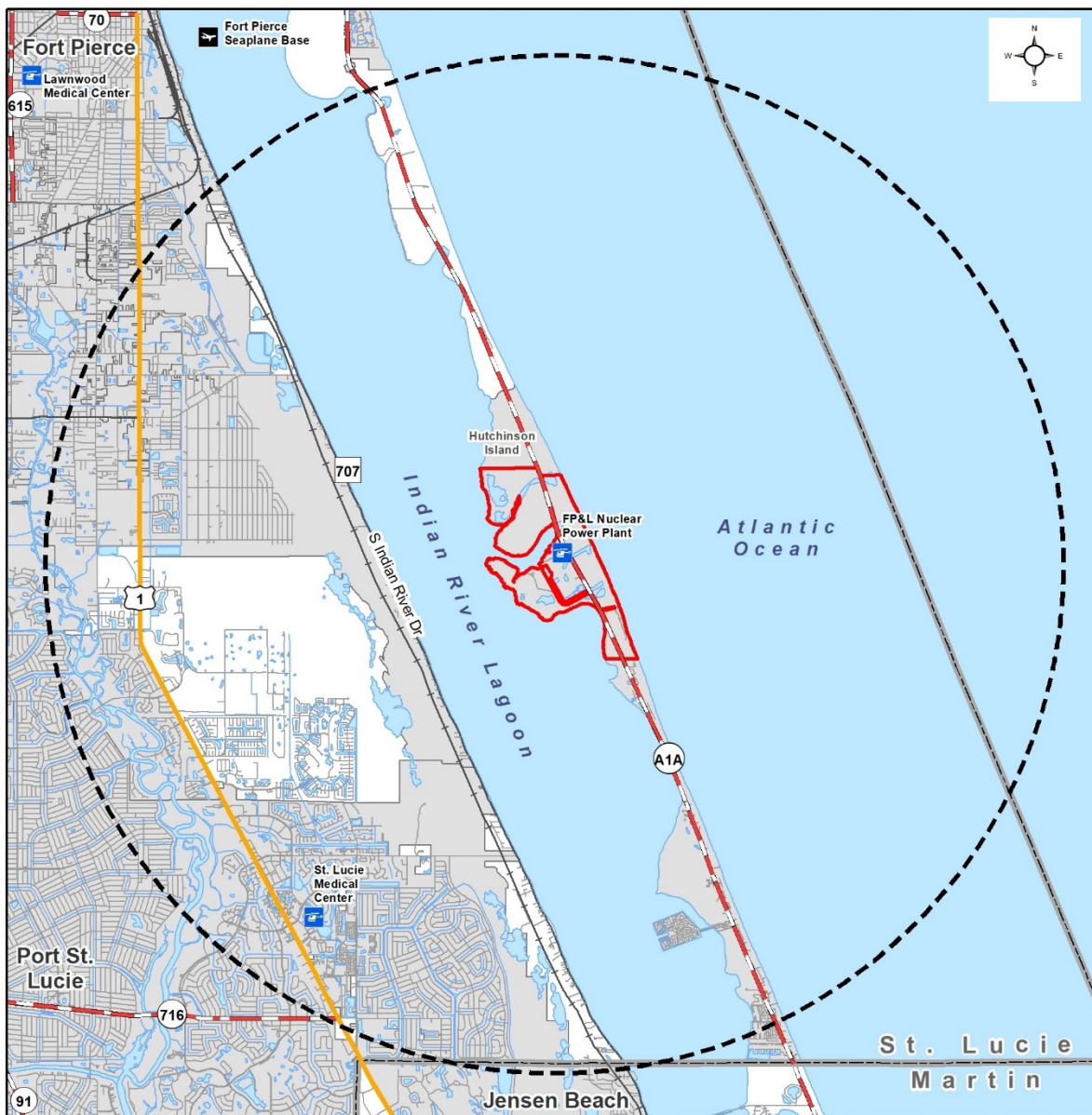
Plant Aerial











Views of PSL from discharge canal and Atlantic Ocean



Vicinity (6-mile) Radius



Legend

-  Heliport
-  Seaplane Base
-  U.S. Route
-  State Road
-  County Road
-  Local Road
-  Railroad
-  Surface Water
-  PSL Site Boundary
-  Place
-  6-Mile Radius
-  County

Region (50-mile) Map



Legend

-  PSL
-  Community
-  Airport
-  Heliport
-  Surface Water
-  Railroad
-  Interstate
-  U.S. Route
-  State Road
-  Place
-  50-Mile Radius
-  County

Discussion Items

- **Methodology**
 - Regulatory
 - Incorporate by Reference
- **Permits / Authorizations**
 - Coastal Zone Management Act (CZMA)
 - Clean Water Act (CWA) 401 Certification
 - Florida Department of Environmental Protection (FDEP) / NPDES
 - CWA 316(a) and 316(b)
- **Consultations & Public Communications**
 - Consultation letters have been sent to agencies and Native American Tribes.

Discussion Items, Contd.

- **Severe Accident Mitigation Alternatives (SAMA) Analysis Status**
 - Current PRA
 - SLR Nuclear Energy Institute (NEI) 17-04, Rev 1
- **Groundwater Monitoring Program**
- **PSL does not use High Burnup Fuel**
- **Independent Spent Fuel Storage Installation**
- **Alternatives Analysis**
 - **Nuclear**
 - **Natural Gas-Fired**
 - **Solar**

Discussion Items: Ecology

- **Critical Habitat**
 - West Indian Manatee in Indian River Lagoon
 - Loggerhead Sea Turtle in Atlantic Ocean along shoreline
- **Essential Fish Habitat**
 - Indian River Lagoon
 - Atlantic Ocean
 - North Fork Saint Lucie River
- **Section 7 Consultation & Biological Opinion**
 - FPL is working with the NRC and NMFS on the biological opinion for:
 - Smalltooth sawfish
 - Kemp's ridley sea turtle
 - Hawksbill sea turtle
 - Green sea turtle
 - Leatherback sea turtle
 - Scalloped hammerhead shark
 - Loggerhead sea turtle
 - Giant manta ray

Lessons Learned

SLR Review

- Incorporate lessons learned from previously submitted ER & SAMA analyses into the PSL ER and basis documents
 - SAMA Evaluations
 - Agency Consultations
 - Alternatives
- Review and incorporate applicable information into PSL ER based on previously submitted SLR ER RAIs (e.g., PBN, PTN, SPS, PBAPS)
- Allocate sufficient time to test IT resources and host test meetings (e.g., access to e-Portal and Microsoft Teams)

Closing Remarks

- **FPL**
- **NRC**