



Florida Power & Light Company
Turkey Point Plant, Units 6 & 7
COL Application

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**Proposed License Conditions
(Including ITAAC)**

Revision 2

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PTN Proposed License Conditions

1. ITAAC (INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA):

There are several ITAAC identified in the COL application. Once incorporated into the COL, the regulations identify the requirements that must be met.

PROPOSED LICENSE CONDITION:

The ITAAC identified in the tables in Appendix B are hereby incorporated into this Combined License. After the Commission has made the finding required by 10 CFR 52.103(g), the ITAAC do not constitute regulatory requirements; except for specific ITAAC, which are the subject of a Section 103(a) hearing, their expiration will occur upon final NRC action in such proceeding.

2. COL HOLDER ITEMS:

There are several COL information items that cannot be resolved prior to issuance of the Combined License. The referenced AP1000 design certification has already justified why each COL holder item (as identified in the AP1000 DCD Tier 2 Table 1.8-2) cannot be resolved before the COL is issued, provides sufficient information on these items to support the NRC licensing decision, and identifies an appropriate implementation milestone. Each COL information item that cannot be resolved completely before the COL is issued is also identified as a COL holder item in the FSAR Table 1.8-202. Therefore, in accordance with the guidance in RG 1.206, Section C.III.4.3, the following License Condition is proposed to address these COL holder items. Holder items (per DCD Table 1.8-2) that are addressed by the COL application are not included in the proposed condition. These include COL information item numbers 3.11-1, 9.5-6, 10.1-1, and 13.6-5.

PROPOSED LICENSE CONDITION:

Each COL holder item identified below shall be completed by the identified implementation milestone through completion of the action therein identified.

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SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	Subject	From DCD Tier 2 Subsection	Implementation Milestone
3.6-1	As-Designed Pipe Rupture Hazards Analysis	3.6.4.1	Prior to installation of the piping and connected components in their final location
<p>After a Combined License is issued, the following activity will be completed by the COL holder. An as-designed pipe rupture hazard evaluation will be available for NRC review. The completed as-designed pipe rupture hazards evaluation will be in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5. Systems, structures, and components identified to be essential targets and appropriate mitigation features (Reference is DCD Table 3.6-3) will be confirmed as part of the evaluation, and updated information will be provided as appropriate. A pipe rupture hazards analysis is part of the piping design. The evaluation will be performed for high and moderate energy piping to confirm the protection of systems, structures, and components (SSCs), which are required to be functional during and following a design basis event. The locations of the postulated ruptures and essential targets will be established and required pipe whip restraints and jet shield designs will be included. The evaluation will address environmental and flooding effects of cracks in high and moderate energy piping. The as-designed pipe rupture hazards evaluation is prepared on a generic basis to address COL applications referencing the AP1000 design.</p>			
3.7-3	Seismic Interaction Review	3.7.5.3	Prior to initial fuel load
<p>The seismic interaction review will be updated by the Combined License holder for as-built information. This review is performed in parallel with the seismic margin evaluation. The review is based on as-procured data, as well as the as-constructed condition. The as-built seismic interaction review is not provided with the COL application, but is completed prior to fuel load.</p>			
3.7-4	Reconciliation of Seismic Analyses of Nuclear Island Structures	3.7.5.4	Prior to initial fuel load
<p>The Combined License holder will reconcile the seismic analyses described in subsection 3.7.2 for detail design changes, such as those due to as-procured or as-built changes in component mass, center of gravity, and support configuration based on as-procured equipment information. Deviations are acceptable based on an evaluation consistent with the methods and procedure of Section 3.7 provided the amplitude of the seismic floor response spectra, including the effect due to these deviations, does not exceed the design basis floor response spectra by more than 10 percent. The Combined License holder will complete this reconciliation prior to fuel load.</p>			
3.9-7	As-Designed Piping Analysis	3.9.8.7	Prior to installation of the piping and connected components in their final location
<p>After a Combined License is issued, the following activity will be completed by the COL holder:</p> <p>The as-designed piping analysis is provided for the piping lines chosen to demonstrate all aspects of the piping design. A design report referencing the as-designed piping calculation packages, including ASME Section III piping analysis, support evaluations and piping component fatigue analysis for Class 1 piping using the methods and criteria outlined in DCD Table 3.9-19 is made available for NRC review. The availability of the piping design information and design reports for the piping packages is identified to the NRC.</p>			

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COL Item No.	Subject	From DCD Tier 2 Subsection	Implementation Milestone
4.4-2	Confirm Assumptions for Safety Analyses DNBR Limits	4.4.7	Prior to initial fuel load
<p>Combined License applicants referencing the AP1000 certified design will address changes to the reference design of the fuel, burnable absorber rods, rod cluster control assemblies, or initial core design from that presented in the DCD.</p> <p>Following selection of the actual plant operating instrumentation and calculation of the instrumentation uncertainties of the operating plant parameters as discussed in subsection 7.1.6, Combined License applicants will calculate the design limit DNBR values using the RTDP with these instrumentation uncertainties and confirm that either the design limit DNBR values as described in Section 4.4 remain valid, or that the safety analysis minimum DNBR bounds the new design limit DNBR values plus DNBR penalties, such as rod bow penalty.</p>			
5.3-1	Reactor Vessel Pressure — Temperature Limit Curves	5.3.6.1	Prior to initial fuel load
<p>The COL Holder shall update the P/T limits using the PTLR methodologies approved in the AP1000 DCD using the plant-specific material properties or confirm that the reactor vessel material properties meet the specifications and use the Westinghouse generic PTLR curves.</p>			
5.3-4	Reactor Vessel Materials Properties Verification	5.3.6.4.1	Prior to initial fuel load
<p>The Combined License holder will complete prior to fuel load verification of plant-specific belt line material properties consistent with the requirements in subsection 5.3.3.1 and Tables 5.3-1 and 5.3-3. The verification will include a pressurized thermal shock evaluation based on as-procured reactor vessel material data and the projected neutron fluence for the plant design objective of 60 years. This evaluation report will be submitted for NRC staff review.</p>			
9.1-7	Coupon Monitoring Program	9.1.6	Prior to commercial operation
<p>A spent fuel rack Metamic coupon monitoring program will be implemented when the plant is placed into commercial operation. This program will include tests to monitor bubbling, blistering, cracking, or flaking; and a test to monitor for corrosion, such as weight loss measurements and/or visual examination. The program will also include testing to monitor changes in physical properties of the absorber material, including neutron attenuation and thickness measurements.</p>			
10.2-1	Turbine Maintenance and Inspection	10.2.6	Prior to initial fuel load
<p>The Combined License holder will submit to the NRC staff for review prior to fuel load, and then implement a turbine maintenance and inspection program. The program will be consistent with the maintenance and inspection program plan activities and inspection intervals identified in subsection 10.2.3.6. The Combined License holder will have available plant-specific turbine rotor test data and calculated toughness curves that support the material property assumptions in the turbine rotor analysis after the fabrication of the turbine and prior to fuel load.</p>			
13.6-5	Cyber Security Program	13.6.1	Prior to initial fuel load
<p>The Combined License holder will develop and implement a cyber security program prior to initial fuel load.</p>			
14.4-2	Test Specifics and Procedures	14.4.2	Prior to initial fuel load
<p>NOTE — addressed by proposed License Condition #6.</p>			
14.4-3	Conduct of Test Program	14.4.3	Prior to initiating test program
<p>A site-specific startup administration manual (procedure), which contains the administration procedures and requirements that govern the activities associated with the plant initial test program, as identified in FSAR Section 14.2, is provided prior to initiating the plant initial test program.</p>			
14.4-4	Review and Evaluation of Test Results	14.4.4	Prior to initial fuel load
<p>The Combined License holder is responsible for review and evaluation of individual test results as well as final review of overall test results and for review of selected milestones or hold points within the test phases. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible design organizations, and corrective actions and retests, as required, are performed.</p>			

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COL Item No.	Subject	From DCD Tier 2 Subsection	Implementation Milestone
14.4-6	First-Plant-Only and Three-Plant-Only Tests	14.4.6	Prior to preoperational testing
<p>The COL holder for the first plant and the first three plants will perform the tests listed in subsection 14.2.5. For subsequent plants, either tests listed in subsection 14.2.5 shall be performed, or the COL applicant shall provide a justification that the results of the first-plant-only tests or first-three-plant tests are applicable to the subsequent plant. The Combined License holder(s) for the first AP1000 plant (or first three plants) available for testing will perform the tests defined during preoperational and startup testing as identified in subsections 14.2.9 and 14.2.10. Combined License holders referencing the results of the tests will provide the report as necessary. The schedule for providing this information will be provided prior to preoperational testing.</p>			
15.0-1	Documentation of Plant Calorimetric Uncertainty Methodology	15.0.15.1	Prior to initial fuel load
<p>Confirm the plant operating instrumentation installed for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus™ System.</p>			
19.59.10-1	As-Built SSC HCLPF Comparison to Seismic Margin Evaluation	19.59.10.5	Prior to initial fuel load
<p>The Combined License holder referencing the AP1000 certified design will review differences between the as-built plant and the design used as the basis for the AP1000 seismic margins analysis prior to fuel load. A verification walkdown will be performed with the purpose of identifying differences between the as-built plant and the design. Any differences will be evaluated and the seismic margins analysis modified as necessary to account for the plant specific-design, and any design changes or departures from the certified design. Spatial interactions are addressed by COL information item 3.7-3. Details of the process will be developed by the Combined License holder. The Combined License holder referencing the AP1000 certified design should compare the as-built SSC HCLPFs to those assumed in the AP1000 seismic margin evaluation prior to fuel load. Deviations from the HCLPF values or assumptions in the seismic margin evaluation due to the as-built configuration and final analysis should be evaluated to determine if vulnerabilities have been introduced. The requirements to which the equipment is to be purchased are included in the equipment specifications. Specifically, the equipment specifications include:</p> <ol style="list-style-type: none"> 1. Specific minimum seismic requirements consistent with those used to define the Table 19.55-1 HCLPF values. This includes the known frequency range used to define the HCLPF by comparing the required response spectrum (RRS) and test response spectrum (TRS). The range of frequency response that is required for the equipment with its structural support is defined. 2. Hardware enhancements that were determined in previous test programs and/or analysis programs will be implemented. 			
19.59.10-2	Evaluation of As-Built Plant Versus Design in AP1000 PRA and Site-Specific PRA External Events	19.59.10.5	Prior to initial fuel load
<p>The Combined License holder referencing the AP1000 certified design will review differences between the as-built plant and the design used as the basis for the AP1000 PRA and Table 19.59-18 prior to fuel load. The plant specific PRA-based insight differences will be evaluated and the plant specific PRA model modified as necessary to account for the plant specific-design and, any design changes or departures from the design certification PRA.</p>			
19.59.10-3	Internal Fire and Internal Flood Analyses	19.59.10.5	Prior to initial fuel load
<p>The Combined License holder referencing the AP1000 certified design will review differences between the as-built plant and the design used as the basis for the AP1000 internal fire and internal flood analyses prior to fuel load. Plant specific internal fire and internal flood analyses will be evaluated and the analyses modified as necessary to account for the plant-specific design, and any design changes or departures from the certified design.</p>			
19.59.10-4	Implement Severe Accident Management Guidance	19.59.10.5	Prior to startup testing
<p>NOTE — addressed by proposed License Condition #6.</p>			

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COL Item No.	Subject	From DCD Tier 2 Subsection	Implementation Milestone
19.59.10-5	Equipment Survivability	19.59.10.5	Prior to initial fuel load
<p>The Combined License holder referencing the AP1000 certified design will perform a thermal lag assessment of the as-built equipment listed in Tables 6b and 6c in Attachment A of APP-GW-GLR-069 to provide additional assurance that this equipment can perform its severe accident functions during environmental conditions resulting from hydrogen burns associated with severe accidents. This assessment is performed prior to fuel load and is required only for equipment used for severe accident mitigation that has not been tested at severe accident conditions. The Combined License holder will assess the ability of the as-built equipment to perform during severe accident hydrogen burns using the Environment Enveloping method or the Test Based Thermal Analysis method discussed in EPRI NP-4354.</p>			

3. OPERATIONAL PROGRAM IMPLEMENTATION:

The provisions of the regulations address implementation milestones for some operational programs. The NRC will use license conditions to ensure implementation for those operational programs whose implementation is not addressed in the regulations. FSAR Subsection 13.4, Table 13.4-201, identifies several programs required by regulations that must be implemented by a milestone to be identified in a license condition.

PROPOSED LICENSE CONDITION:

The licensee shall implement the programs or portions of programs identified below on or before the associated milestones identified below.

- A. Construction Initiation — The licensee shall implement each operational program identified below prior to initiating construction of nuclear safety- or security-related structures, systems, or components:
None identified.
- B. 18 Months Before Fuel Load — The licensee shall implement each operational program identified below at least 18 months prior to scheduled date of initial fuel load:
 - B.1 – Reactor Operator Training
- C. Receipt Of Materials — The licensee shall implement each operational program identified below prior to initial receipt of by-product, source, or special nuclear materials on site (excluding Exempt Quantities as described in 10 CFR 30.18):
 - C.1 – Radiation Protection (applicable portions)
 - C.2 – Fire Protection Program (applicable portions)
 - C.3 – Non Licensed Plant Staff Training Program (applicable portions)
 - C.4 – Emergency Planning (applicable portions)
 - C.5 – Security Program (applicable portions)
- D. Fuel Receipt — The licensee shall implement each operational program identified below prior to initial receipt of fuel onsite:
 - D.1 – Fire Protection (applicable portions)
 - D.2 – Radiation Protection (applicable portions)
 - D.3 – Security Program (applicable portions)
 - D.4 – Emergency Planning (applicable portions)
- E. Construction Testing — The licensee shall implement each operational program identified below prior to initial construction testing:
 - E.1 – Initial Test Program — Construction Testing
- F. Preoperational Testing — The licensee shall implement each operational program identified below prior to initial preoperational testing:
 - F.1 – Initial Test Program — Preoperational Testing

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- G. Fuel Loading — The licensee shall implement each operational program identified below prior to initial fuel load:
 - G.1 – Environmental Qualification
 - G.2 – Pre-Service Testing
 - G.3 – Process and Effluent Monitoring and Sampling
 - G.4 – Radiation Protection (applicable portions)
 - G.5 – Motor-Operated Valve Testing
 - G.6 – Fire Protection
 - G.7 – Deleted
 - G.8 – Containment Leakage Rate Testing Program
 - G.9 – Physical Security
 - G.10 – Cyber Security

- H. Startup Testing — The licensee shall implement each operational program identified below prior to initial startup testing:
 - H.1 – Initial Test Program — Startup Testing

- I. MODE 4 – Not used

- J. Initial Criticality — The licensee shall implement each operational program identified below prior to initial criticality:
 - J.1 – Reactor Vessel Material Surveillance

- K. Waste Shipment — The licensee shall implement each operational program identified below prior to initial radioactive waste shipment:
 - K.1 – Radiation Protection

4. NOT USED

5. SECURITY PROGRAM REVISIONS:

An implementation license condition approved in the staff requirements memo regarding SECY-05-0197 applies to the security program.

PROPOSED LICENSE CONDITION:

The licensee shall maintain in effect the provisions of the physical security plan, security personnel training and qualification plan, and safeguards contingency plan and cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 10 CFR 50.54(p), 10 CFR 52.97, and Section VIII of Appendix D to 10 CFR Part 52 when nuclear fuel is onsite (protected area), and continuing until all nuclear fuel is permanently removed from the site.

6. OPERATIONAL PROGRAM READINESS:

The NRC inspection of operational programs will be the subject of the following license condition in accordance with SECY-05-0197:

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PROPOSED LICENSE CONDITION:

The licensee shall submit to the appropriate director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-201. The schedule shall be updated every six months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first.

This schedule shall also address:

- a. the emergency planning implementation procedures to the NRC consistent with 10 CFR Part 50, Appendix E, Section V.
- b. the implementation of site specific Severe Accident Management Guidance.
- c. a reactor vessel pressurized thermal shock evaluation at least 18 months prior to initial fuel load.
- d. approved preoperational and startup test procedures in accordance with FSAR Subsection 14.2.3.
- e. an emergency response data system (ERDS) implementation program plan consistent with 10 CFR Part 50, Appendix E, Section V.
- f. a flow accelerated corrosion (FAC) program implementation schedule, including the construction phase activities.
- g. full implementation of the operational and programmatic elements of responding to an event associated with a loss of large areas of the plant due to explosions or fire, prior to initial fuel load.
- h. the spent fuel rack Metamic coupon monitoring program implementation.

7. First-Plant-Only and First-Three-Plant-Only Testing

Certain design features of the AP1000 plant will be subjected to special tests to establish unique phenomenological performance parameters of the AP1000 design. Because of the standardization of the AP1000 design, these special tests (designated as first-plant-only tests and first-three-plant-only tests) are not required on subsequent plants. These tests will be controlled through license conditions to ensure that relevant test results are reviewed, evaluated,

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and approved by the designated licensee management before proceeding with the next testing phase. Accordingly, the following license condition is proposed:

First-Plant-Only and First-Three-Plant-Only Testing

Following completion of the testing, the licensee completing the testing shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and tests, as required, are performed.

Additionally, the licensee completing the testing shall also provide written notification of completion of the testing to the Director of the Office of New Reactors.

1. For testing completed during pre-critical testing, criticality testing, and during low-power testing, these reports may be in conjunction with the test completion reports required for the power ascension test phase as identified below.
2. For tests completed during operation above 5% RTP, the reports shall be provided for each individual test within thirty (30) calendar days of the licensee confirmation of completion of the testing.

Subsequent plant licensees crediting completion of testing by the first-plant or by the first-three-plants shall provide a report referencing the written notification of completion submitted by the plant(s) completing the testing to the Director of the Office of New Reactors.

8. Startup Testing:

FSAR Section 14.2 specifies certain startup tests that must be completed after fuel load. Operating licenses typically have included the following condition related to startup testing.

PROPOSED LICENSE CONDITION:

Any changes to the Initial Startup Test Program described in Chapter 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 or Section VIII of Appendix D to 10 CFR Part 52 shall be reported in accordance with 10 CFR 50.59(d) within one month of such change.

9. POWER-ASCENSION TEST PHASE

Certain milestones within the startup testing phase of the initial test program (i.e., pre-critical testing, criticality testing, and low-power (<5% RTP) testing) are controlled through license conditions to ensure that relevant test results are reviewed, evaluated, and approved by the designated licensee management before proceeding with the power ascension test phase. Accordingly, the following license conditions are proposed:

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Pre-critical and Criticality Testing

1. Following completion of pre-critical and criticality testing, the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.
2. The licensee shall provide written notification to the Director of the Office of New Reactors within fourteen (14) calendar days of completion of the pre-critical and criticality testing.

Low-Power (<5% RTP) Testing

1. Following completion of low-power (<5% RTP) testing, the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.
2. The licensee shall provide written notification to the Director of the Office of New Reactors within fourteen (14) calendar days of completion of the low power testing.

10. ENVIRONMENTAL PROTECTION PLAN:

Operating licenses typically have included the following condition related to environmental protection.

PROPOSED LICENSE CONDITION:

The issuance of this COL, subject to the Environmental Protection Plan (EPP) and the conditions for the protection of the environment set forth herein, is in accordance with the National Environmental Policy Act of 1969, as amended, and with applicable sections of 10 CFR Part 51, Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions, as referenced by Subpart C of 10 CFR Part 52, Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants, and all applicable requirements therein have been satisfied.

11. EMERGENCY PLAN EAL SCHEME:

FSAR Table 13.4-201 specifies that emergency plan implementing procedures be submitted at least 180 days prior to scheduled date for initial fuel load. Operating licenses typically have included the following condition related to emergency action levels.

PROPOSED LICENSE CONDITION:

The licensee shall submit a fully developed set of plant specific Emergency Action Levels (EALs) for Turkey Point Units 6 & 7 to the NRC for confirmation at least 180 days prior to initial fuel load.

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APPENDIX A

**TO FACILITY OPERATING LICENSE NO. [XXX-XX]
TURKEY POINT — UNITS NO. 6 & 7
FPL DOCKET NOS. 52-XXX AND 52-YYY
ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)[DATE]**

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Appendix A: Environmental Protection Plan (Nonradiological)

1.0 OBJECTIVE OF THE ENVIRONMENTAL PROTECTION PLAN

The Environmental Protection Plan (EPP) objective is to ensure compliance with Biological Opinions issued pursuant to the Endangered Species Act of 1973, as amended (ESA), and to ensure that the Commission is kept informed of other environmental matters within NRC's jurisdiction that require affirmative NRC licensee notifications to other Federal agencies.

2.0 ENVIRONMENTAL PROTECTION ISSUES

In the Final Environmental Impact Statement (FEIS) dated [xxxxx] the staff considered the environmental impacts associated with the construction and operation of Turkey Point Units 6 & 7. This EPP applies to the licensee's actions affecting the environmental resources evaluated in the FEIS.

2.1 Aquatic Resources Issues

Federal agencies other than the U.S. Nuclear Regulatory Commission (NRC), such as the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (ACE), have jurisdiction to regulate aquatic resources under the Federal Water Pollution Control Act (Clean Water Act or CWA) and the Rivers and Harbors Appropriation Act of 1899 (RHA). Water quality environmental concerns identified in the FEIS including effluent limitations, monitoring requirements, and mitigation measures are regulated under the licensee's CWA permits, such as National Pollutant Discharge Elimination System (NPDES) and Section 404 permits, and RHA Section 10 permit. Nothing within this EPP shall be construed to place additional requirements on the regulation of aquatic resources except the imposition of the requirements in a Biological Opinion under the ESA (see section 2.3) upon COL holders. To the extent an event or situation concerning aquatic resources occurs for which a news release is planned or notification to other government agencies has been or will be made, the licensee shall so inform the NRC consistent with NRC regulations in 10 CFR 50.72(b)(2)(xi). If an event or situation concerning aquatic resources occurs that is not required to be reported under that provision, the licensee is expected to inform the NRC only to the same extent, and on the same schedule, that it is required to report such events or situations to the federal agency with jurisdiction or permitting authority over those events or conditions. In the latter case, submitting to the NRC an electronic copy of the licensee's notification to the jurisdictional agency is sufficient to meet this obligation.

2.2 Terrestrial Resources Issues

Several statutes govern the regulation of terrestrial resources. For example, the U.S. Fish and Wildlife Service (FWS) regulates matters involving migratory birds and their nests in accordance with the Migratory Bird Treaty Act. Activities affecting migratory birds or their nests may require

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permits under the Migratory Bird Treaty Act. The FWS also regulates matters involving the protection and taking of bald and golden eagles in accordance with the Bald and Golden Eagle Protection Acts. To the extent an event or situation concerning terrestrial resources occurs for which a news release is planned or notification to other government agencies has been or will be made, the licensee shall so inform the NRC consistent with NRC regulations in 10 CFR 50.72(b)(2)(xi). If an event or situation concerning terrestrial resources occurs that is not required to be reported under that provision, the licensee is expected to inform the NRC only to the same extent, and on the same schedule, that it is required to report such events or situations to the federal agency with jurisdiction or permitting authority over those events or conditions. In the latter case, submitting to the NRC an electronic copy of the licensee's notification to the jurisdictional agency is sufficient to meet this obligation.

2.3 Endangered Species Act of 1973

If any Federally listed species or critical habitat occurs in an area affected by construction or operation of the plant that was not previously identified as occurring in such areas, including species and critical habitat that were not previously Federally listed, the licensee shall copy the NRC on any notifications required to the appropriate jurisdictional agencies. Similarly, the licensee shall copy the NRC on any notifications required to the appropriate jurisdictional agencies of discovery of any take, as defined in the ESA, of a Federally listed species or destruction or adverse modification of critical habitat. These notifications shall be made by including the NRC on electronic distribution of the notifications that the licensee provides to the jurisdictional federal agency. The licensee shall provide any necessary information to the NRC if the NRC initiates consultation under the ESA.

Unusual ESA-related Event — The licensee shall include the NRC on distribution for any notifications required to be made to the appropriate jurisdictional agencies in connection with any onsite mortality, injury, or unusual occurrence of any species protected by the ESA, to the extent such events trigger the reporting obligation set forth in 10 CFR 50.72(b)(2)(xi).

3.0 CONSISTENCY REQUIREMENTS

The licensee shall notify the NRC of proposed changes to its Class I well operation permit(s) by providing the NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC with a copy of the application for renewal of this permit(s) at the same time the application is submitted to the permitting agency.

Changes to or renewals of this permit(s) shall be reported to the NRC within 30 days following the later of the date the change or renewal is approved or the date the change becomes effective. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

4.0 ADMINISTRATIVE PROCEDURES

4.1 Plant Reporting Requirements: Non-routine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of any unusual event described in Section 2.3 of this EPP, if such event is causally related to facility construction or operation. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics at the time of the event, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

4.2 Review and Audit

The licensee shall provide for review and audit of compliance with Section 2.3 of the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

4.3 Records Retention

Records shall be made available to the NRC on request. The records, data, and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

4.4 Changes in Environmental Protection Plan

A request for a change in the EPP shall be processed in accordance with 10 CFR 50.59, and shall also include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes, if required.

The licensee shall notify the NRC of any changed Terms and Conditions set forth in the Incidental Take Statement of Biological Opinions issued subsequent to the effective date of this EPP.

Appendix B: Inspections, Tests, Analysis and Acceptance Criteria

AP1000 DCD TIER 1 ITAAC

The Tier 1 information (including the ITAAC) of the referenced DCD is incorporated by reference with the following departures and/or supplements.

PHYSICAL SECURITY ITAAC

The physical security ITAAC that are in the scope of the Westinghouse AP1000 standard design are included in the referenced DCD Tier 1 Subsection 2.6.9 as incorporated by reference above. Site specific physical security ITAAC that are outside the scope of the Westinghouse AP1000 standard design in DCD Tier 1 Subsection 2.6.9 are provided in the attached [Table 2.6.9-2](#). Include these ITAAC after the DCD Tier 1 Table 2.6.9-1 ITAAC.

PLANT SPECIFIC ITAAC

Add the following information to the information provided in the referenced DCD Tier 1 following Section 2.3.29:

- 2.3.30 Storm Drain System
No entry for this system.
- 2.3.31 Raw Water System
No entry for this system.
- 2.3.32 Yard Fire Water System
No entry for this system.

Add the following information to the information provided in the referenced DCD Tier 1 following Section 2.5.10:

- 2.5.11 Meteorological and Environmental Monitoring System
No entry for this system
- 2.5.12 Closed Circuit TV System
No Entry for this system

Add the following information to the information provided in the referenced DCD Tier 1 following Section 2.6.11:

- 2.6.12 Transmission Switchyard and Offsite Power System
[Table 2.6.12-1](#) provides a definition of the inspections, tests, and/or analyses, together with associated acceptance criteria for the offsite power system.

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2.6.13 Offsite Retail Power System
No entry for this system.

The following non-system based site specific ITAAC are provided:

Pipe Rupture Hazard Analysis ITAAC

The ITAAC for Pipe Rupture Hazard Analysis are included in attached [Table 3.8-2](#).

Piping Design ITAAC

The ITAAC for Piping Design are included in attached [Table 3.8-3](#).

EMERGENCY PLANNING ITAAC

The emergency planning ITAAC are included in the attached [Table 3.8-1](#). Include these ITAAC after DCD Tier 1 Section 3.7.

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Table 2.6.9-2 (Sheet 1 of 2)
Site-Specific Physical Security Inspections, Tests, Analyses and Acceptance Criteria

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. The external walls, doors, ceiling, and floors in the location within which the last access control function for access to the protected area is performed are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.	Type test, analysis, or a combination of type test and analysis will be performed for the external walls, doors, ceilings, and floors in the location within which the last access control function for access to the protected area is performed.	The external walls, doors, ceilings, and floors in the location within which the last access control function for access to the protected area is performed are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.
2. Physical barriers for the protected area perimeter are not part of vital area barriers.	An inspection of the protected area perimeter barrier will be performed.	Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a vital area barrier.
3.a) Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allow 20 feet of observation on either side of the barrier. Where permanent buildings do not allow a 20-foot observation distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier. b) The isolation zones are monitored with intrusion detection equipment that provides the capability to detect and assess unauthorized persons.	Inspections will be performed of the isolation zones in outdoor areas adjacent to the physical barrier at the perimeter of the protected area. Inspections will be performed of the intrusion detection equipment within the isolation zones.	Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and allow 20 feet of observation and assessment of the activities of people on either side of the barrier. Where permanent buildings do not allow a 20-foot observation and assessment distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier and the 20-foot observation and assessment distance does not apply. The isolation zones are equipped with intrusion detection equipment that provides the capability to detect and assess unauthorized persons.
4. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in both the Central Alarm Station and Secondary Alarm Station, and b) remains operable from an uninterruptible power supply in the event of the loss of normal power.	Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed.	The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in both the Central Alarm Station and Secondary Alarm Station, and b) remains operable from an uninterruptible power supply in the event of the loss of normal power.

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Table 2.6.9-2 (Sheet 2 of 2)
Site-Specific Physical Security Inspections, Tests, Analyses and Acceptance Criteria

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
<p>5. Access control points are established to:</p> <ul style="list-style-type: none"> a) control personnel and vehicle access into the protected area. b) detect firearms, explosives, and incendiary devices at the protected area personnel access points. 	<p>Tests, inspections, or combination of tests and inspections of installed systems and equipment at the access control points to the protected area will be performed.</p>	<p>The access control points for the protected area:</p> <ul style="list-style-type: none"> a) are configured to control personnel and vehicle access b) include detection equipment that is capable of detecting firearms, incendiary devices, and explosives at the protected area personnel access points.
<p>6. An access control system with numbered picture badges is installed for use by individuals who are authorized access to protected areas and vital areas without escort.</p>	<p>A test of the access control system with numbered picture badges will be performed.</p>	<p>The access authorization system with numbered picture badges can identify and authorize protected area and vital area access only to those personnel with unescorted access authorization.</p>
<p>7. Access to vital equipment physical barriers requires passage through the protected area perimeter barrier.</p>	<p>Inspection will be performed to confirm that access to vital equipment physical barriers requires passage through the protected area perimeter barrier.</p>	<p>Vital equipment is located within a protected area such that access to vital equipment physical barriers requires passage through the protected area perimeter barrier.</p>
<p>8.a) Penetrations through the protected area barrier are secured and monitored.</p> <p>b) Unattended openings (such as underground pathways) that intersect the protected area boundary or vital area boundary will be protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.</p>	<p>Inspections will be performed of penetrations through the protected area barrier.</p> <p>Inspections will be performed of unattended openings that intersect the protected area boundary or vital area boundary.</p>	<p>Penetrations and openings through the protected area barrier are secured and monitored.</p> <p>Unattended openings (such as underground pathways) that intersect the protected area boundary or vital area boundary are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.</p>
<p>9. Emergency exits through the protected area perimeter are alarmed and secured with locking devices to allow for emergency egress.</p>	<p>Tests, inspections, or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.</p>	<p>Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.</p>

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**Table 2.6.12-1
Offsite Power System**

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. A minimum of one offsite circuit supplies electric power from the transmission switchyard to the interface with the onsite ac power system.	Inspections of the as-built offsite circuit will be performed.	At least one offsite circuit is provided from the transmission switchyard interface to the interface with the onsite ac power system.
2. Each offsite circuit interfacing with the onsite ac power system is adequately rated to supply assumed loads during normal, abnormal and accident conditions.	Analyses of the offsite power system will be performed to evaluate the as-built ratings of each offsite circuit interfacing with the onsite ac power system against the load assumptions.	A report exists and concludes that each as-built offsite circuit is rated to supply the load assumptions, during normal, abnormal and accident conditions.
3. During steady state operation, each offsite circuit is capable of supplying required voltage to the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.	Analyses of the as-built offsite circuit will be performed to evaluate the capability of each offsite circuit to supply the voltage requirements at the interface with the onsite ac power system.	A report exists and concludes that during steady state operation each as-built offsite circuit is capable of supplying the voltage at the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.
4. During steady state operation, each offsite circuit is capable of supplying required frequency to the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.	Analyses of the as-built offsite circuit will be performed to evaluate the capability of each offsite circuit to supply the frequency requirements at the interface with the onsite ac power system.	A report exists and concludes that during steady state operation each as-built offsite circuit is capable of supplying the frequency at the interface with onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.
5. The fault current contribution of each offsite circuit is compatible with the interrupting capability of the onsite ac power system short circuit interrupting devices.	Analyses of the as-built offsite circuit will be performed to evaluate the fault current contribution of each offsite circuit at the interface with the onsite ac power system.	A report exists and concludes the short circuit contribution of each as-built offsite circuit at the interface with the onsite ac power system is compatible with the interrupting capability of the onsite fault current interrupting devices
6. The reactor coolant pumps continue to receive power from either the main generator or the grid for a minimum of 3 seconds following a turbine trip.	Analyses of the as-built offsite power system will be performed to confirm that power will be available to the reactor coolant pumps for a minimum of 3 seconds following a turbine trip when the buses powering the reactor coolant pumps are aligned to either the UATs or the RATs.	A report exists and concludes that voltage at the high-side of the GSU, and the RATs, does not drop more than 0.15 pu from the pre-trip steady-state voltage for a minimum of 3 seconds following a turbine trip when the buses powering the reactor coolant pumps are aligned to either the UATs or the RATs.

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Table 3.8-1 (Sheet 1 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Emergency Classification System			
<p>10 CFR 50.47(b)(4) — A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and state and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.</p>	<p>1.1 A standard emergency classification and emergency action level scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1**] [**D.1 corresponds to NUREG-0654/FEMA-REP-1 evaluation criteria.]</p>	<p>1.1.1 An inspection of each control room, the Technical Support Center (TSC), and Emergency Operations Facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters as specified in the Emergency Classification and EAL technical basis document from each unit, and the displays are functional.</p>	<p>1.1.1 The specified parameters are retrievable in each control room, the TSC and EOF, and the ranges of the displays encompass the values specified in the Emergency Classification and EAL technical basis document from each unit.</p>
		<p>1.1.2 An analysis of the EAL technical bases will be performed to verify as-built, site-specific implementation of the EAL scheme.</p>	<p>1.1.2 The ranges available in the control room, TSC, and EOF envelop the values for the specific parameters identified in the EALs in Emergency Plan, Annex 2 & 3, Attachment 1.</p>
2.0 Notification Methods and Procedures			
<p>10 CFR 50.47(b)(5) — Procedures have been established for notification, by the licensee, of state and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.</p>	<p>2.1 The means exists to notify responsible state and local organizations within 15 minutes after the licensee declares an emergency. [E.1]</p>	<p>2.1. A test will be performed to demonstrate the capabilities for providing initial notification to the offsite authorities after a simulated emergency classification.</p>	<p>2.1 The state of Florida and the counties of Miami-Dade, and Monroe received notification within 15 minutes after the declaration of an emergency in each control room and the EOF.</p>

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Table 3.8-1 (Sheet 2 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
2.0 Notification Methods and Procedures (cont.)			
	2.2 The means exists to notify emergency response personnel. [E.2]	2.2 A test of the primary and backup emergency response organization (ERO) notification systems will be performed.	2.2 A test of the primary and back-up ERO notification systems results in: ERO personnel received the notification message; Mobilization communication was validated by personnel response to the notification system or by telephone; Response to electronic notification and plant page system was demonstrated during normal working hours, and off hours.
	2.3 The means exists to notify and provide instructions to the populace within the plume exposure emergency planning zone (EPZ). [E.6]	2.3 A full test of the alert and notification system and emergency alert system capabilities will be conducted.	2.3 Notification and clear instructions to the public are accomplished in accordance with the emergency plan requirements.
3.0 Emergency Communications			
10 CFR 50.47(b)(6) — Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	3.1 The means exists for communications between the control rooms, TSC, EOF, principal state and local emergency operations centers (EOCs), and field monitoring teams. [F.1.d]	3.1 A test will be performed of the capabilities. The test for the contact with the principal EOCs and the field monitoring teams will be from each control room and the EOF. The TSC communication with each control room and the EOF will be performed.	3.1 Communications (both primary and secondary methods/systems) are established among the control rooms and the EOF with the state of Florida Division of Emergency Management warning point and EOC, Miami-Dade County warning point and EOC, and Monroe County warning point and EOC. Communications are established between the control rooms and the EOF with the PTN field monitoring teams.

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Table 3.8-1 (Sheet 3 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Communications (cont.)			
	3.2 The means exists for communications from the control rooms, TSC and EOF to the NRC headquarters and regional office EOCs (including establishment of the emergency response data system or its successor system between the onsite computer system and the NRC operations center.) [F.1.f]	3.2 A test is performed of the capabilities to communicate using the emergency notification system from each operating control room, TSC and EOF to the NRC headquarters and regional office EOCs. The health physics network is tested to ensure communications between the TSC and EOF with the NRC operations center. The emergency response data system is established, or its successor system, between the onsite computer systems and the NRC operations center.	3.2 Communications are established from each control room, TSC and EOF to the NRC headquarters and regional office EOCs using the emergency notification system. The TSC and EOF demonstrated communications with the NRC operations center using the health physics network. The access port for emergency response data system, or its successor system, is provided and successfully completes a transfer of data from each operating unit to the NRC operations center.
4.0 Public Education and Information			
10 CFR 50.47(b)(7) — Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.	4.1 The licensee has provided space that may be used for a limited number of the news media. [G.3.b]	4.1 An inspection of the facility/area provided for the news media will be performed in the emergency news center. The space provides adequate equipment to support the emergency news center operation, including communications with the site and with the EOCs in the state and counties as well as a limited number of news media.	4.1 The emergency news center includes equipment to support the emergency news center operations, including communications with the EOF and state and county EOCs. Designated space is available for news media briefings.
5.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) — Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	5.1 The licensee has established a TSC and onsite operations support center (OSC).	5.1 An inspection of the TSC and OSC will be performed, including a test of their capabilities. These facilities will meet the criteria of NUREG-0696 with exceptions.	5.1.1 The TSC size is consistent with NUREG-0696 and is large enough for required systems, equipment, records and storage.

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Table 3.8-1 (Sheet 4 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment (cont.)			
			5.1.2 The TSC is located outside the Protected Area, and procedures are in place to enhance passage through security checkpoints expeditiously.
			5.1.3 Communications equipment is installed and voice transmission and reception are accomplished between each control room, the OSC, and EOF.
			5.1.4 The TSC ventilation system includes a high-efficiency particulate air, and charcoal filter and radiation monitors are installed.
			5.1.5 The TSC has the means to receive, store, process, and display plant and environmental information, and to initiate emergency measures and conduct emergency assessment. These capabilities have been demonstrated during testing and acceptance activities.
			5.1.6 A reliable and back-up electrical power supply is available for the TSC.
			5.1.7 There is an OSC located inside the Protected Area. It is separate from the control room(s).
			5.1.8 Communications equipment is installed, and voice transmission and reception are accomplished between the OSC and OSC teams, the TSC and each control room.

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Table 3.8-1 (Sheet 5 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment (cont.)			
	5.2 The licensee has established an EOF. [H.2]	5.2 An inspection of the EOF will be performed, including a test of the capabilities.	5.2.1 The EOF working space size is approximately 4000 square feet consistent with NUREG-0696 (75 square feet/person) and is large enough for required systems, equipment, records, and storage. <ul style="list-style-type: none"> • Distance at or beyond 10 miles of the TSC. • Built to meet the criteria of the county building code.
			5.2.2 Communications equipment is installed, and voice transmission and reception are accomplished between the control rooms, TSC, EOF, field monitoring teams, NRC, state and county agencies, and emergency news center.
			5.2.3 Radiological data identified in each Plan Annex, meteorological data, and plant system data pertinent to determining offsite protective measures are displayed in the EOF, when activated.
6.0 Accident Assessment			
10 CFR 50.47(b)(9) — Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.	6.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [I.2]	6.1 A test will be performed to demonstrate that the means exist to provide initial and continuing radiological assessment throughout the course of an accident through the plant computer or communications with each control room, TSC, and EOF during the course of drills and/or exercises.	6.1 The means are available to provide initial and continuing radiological assessment through displays of instrumentation indicators in each control room, and for each unit in the TSC and EOF during the course of drills and/or exercises.

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Table 3.8-1 (Sheet 6 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (cont.)			
	6.2 The means exist to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3]	6.2 A test will be performed to demonstrate that the means exist to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.	6.2 Emergency Plan implementing procedures, through use in training and drills, provide direction to accurately calculate the source terms and the magnitude of the release of postulated accident scenario releases.
	6.3 The means exist to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4]	6.3 A test will be performed to provide evidence that the impact of a radiological release to the environment is able to be assessed by using the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions.	6.3 Demonstrate that the means exist to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions under drill conditions.
	6.4 The means exist to acquire and evaluate meteorological information. [I.5]	6.4 A test will be performed to acquire and evaluate meteorological data/information.	6.4 Meteorological data exists at the EOF, TSC, control room(s), offsite NRC operations center, and the state of Florida, and that this data is in the format needed for the appropriate emergency plan implementing procedures.
	6.5 The means exist to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable. [I.6]	6.5 A test will be performed of the capabilities to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable.	6.5 The release rate and projected doses can be determined with off-scale or inoperable instrumentation during training or a drill.
	6.6 The means exist for field monitoring within the plume exposure EPZ. [I.7]	6.6 A test will be performed of the capabilities for field monitoring within the plume exposure EPZ.	6.6 The field monitoring teams were dispatched and demonstrated ability to locate and monitor a radiological release within the plume exposure EPZ.

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Table 3.8-1 (Sheet 7 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (cont.)			
	6.7 The means exist to make rapid assessments of actual or potential magnitude and locations of radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8]	6.7 A test will be performed of the capabilities to make rapid assessments of actual or potential magnitude and locations of radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times.	6.7 The field monitoring teams were activated. They demonstrated an ability to make rapid assessment of actual or potential magnitude and locations of any radiological hazards through simulated liquid or gaseous release pathways. A qualified field monitoring team was notified, activated, briefed, and dispatched from the EOF during a radiological release scenario. The team demonstrated the procedural guidance in team composition, use of monitoring equipment, communication from the field, and locating specific sampling locations.
	6.8 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} $\mu\text{Ci/cc}$ (microcuries per cubic centimeter) under field conditions. [I.9]	6.8 A test will be performed of the capabilities to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} $\mu\text{Ci/cc}$ under field conditions.	6.8 A field monitoring team was dispatched during a radiological release scenario and demonstrated the use of sampling and detection equipment for air concentrations in the plume exposure EPZ, as low as 10^{-7} $\mu\text{Ci/cc}$.
	6.9 The means exist to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides. [I.10]	6.9 A test will be performed of the capabilities to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides.	6.9 The means are available to estimate integrated dose from the dose assessment program and the field monitoring team reading during a radioactive release scenario. The results were compared with the EPA protective action guides.

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Table 3.8-1 (Sheet 8 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
7.0 Protective Response			
10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.	7.1 The means exist to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including:[J.1] 1. Employees not having emergency assignments 2. Visitors 3. Contractor and construction personnel 4. Other people who may be in the public access areas, on or passing through the site, or within the owner-controlled area.	7.1 A test will be performed of the capabilities to warn and advise onsite individuals of an emergency, including those in the owner-controlled area, and the immediate vicinity.	7.1 Means exist to successfully warn and advise onsite individuals including: 1. Non-essential employees 2. Visitors 3. Contractor and construction personnel 4. Other personnel within the owner-controlled area, and the immediate vicinity.
8.0 Exercises and Drills			
10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.	8.1 Licensee conducts a full participation exercise to evaluate major portions of emergency response capabilities, which includes participation by the state and local agency within the plume exposure EPZ, and the state within the ingestion control EPZ. [N.1]	8.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.	8.1.1 The exercise is completed within the specified time periods of 10 CFR Part 50, Appendix E; onsite exercise objectives listed below have been met, and there are no uncorrected onsite exercise deficiencies.

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Table 3.8-1 (Sheet 9 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>A. Accident Assessment and Classification</i></p> <p>1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise.</p> <p>Standard Criteria:</p> <p>a. Determine the correct highest emergency classification level based on events which were in progress, considering past events and their impact on the current conditions, within 15 minutes from the time the initiating condition(s) or EAL is identified</p>
			<p><i>B. Notifications</i></p> <p>1. Demonstrate the ability to alert, notify and mobilize site emergency response personnel.</p> <p>Standard Criteria:</p> <p>a. Complete the designated checklist and perform the announcement concerning the initial event classification of Alert or higher.</p> <p>b. Activate the emergency recall system within 5 minutes of the initial event classification for an Alert or higher.</p>

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Table 3.8-1 (Sheet 10 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>B. Notifications (cont.)</i></p> <p>2. Demonstrate the ability to notify responsible state, and local government agencies within 15 minutes and the NRC within 60 minutes after declaring an emergency.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Transmit information using the designated checklist in accordance with approved Emergency Plan Implementing Procedures (EPIPs) within 15 minutes of event classification. b. Transmit information using the designated checklist in accordance with approved EPIPs within 60 minutes of last transmittal for a follow-up notification to state and local authorities. c. Transmit information using designated checklist within 60 minutes of event classification for an initial notification of the NRC. <p>3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions.</p> <p>Standard Criteria:</p>

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Table 3.8-1 (Sheet 11 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>B. Notifications (cont.)</i></p> <ul style="list-style-type: none"> a. Initiate notification of onsite individuals (via plant page or telephone) using designated checklist. <p>4. Demonstrate the capability of the Alert and Notification System (ANS) for the public, to operate properly when required.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. $\geq 94\%$ of the sirens operate properly as indicated by the siren feedback system.
			<p><i>C. Emergency Response</i></p> <ul style="list-style-type: none"> 1. Demonstrate the capability to direct and control emergency operations. <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Command and control is demonstrated in the control room in the early phase of the emergency and by the TSC within 90 minutes from event classification. 2. Demonstrate the ability to transfer emergency direction from the control room (simulator) to the TSC.

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Table 3.8-1 (Sheet 12 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			<p><i>C. Emergency Response (cont.)</i></p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Evaluation of briefings that were conducted prior to turnover responsibility. Personnel document transfer of duties. <p>3. Demonstrate the ability to prepare for 24-hour staffing requirements.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Complete 24-hour staff assignments. <p>4. Demonstrate the ability to perform assembly and accountability for all personnel in the Protected Area (PA) within 30 minutes of an emergency requiring Protected Area assembly and accountability.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Protected Area (PA) personnel assembly and accountability completed within 30 minutes of an emergency requiring PA assembly and accountability.

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Table 3.8-1 (Sheet 13 of 18)
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			<p><i>D. Emergency Response Facilities</i></p> <ol style="list-style-type: none"> 1. Demonstrate activation of the Operations Support Center (OSC) and full functional operation of the TSC and EOF within 90 minutes of event classification. Standard Criteria: <ol style="list-style-type: none"> a. The TSC, EOF and OSC are activated within 90 minutes of the initial classification of an Alert or higher 2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC, EOF and Emergency News Center (ENC), as appropriate. Standard Criteria: <ol style="list-style-type: none"> a. Evaluation of the adequacy of the emergency equipment in the emergency response facilities including availability and general consistency with the Emergency Plan Implementing Procedures (EIPs). b. The Security Manager implements and follows applicable EIPs.

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Table 3.8-1 (Sheet 14 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>D. Emergency Response Facilities (cont.)</i></p> <ul style="list-style-type: none"> c. The Radiation Protection Manager (TSC) implements the designated checklist if an onsite/offsite release has occurred. <p>3. Demonstrate the adequacy of communications for all emergency support resources.</p> <p>Standard Criteria:</p> <p>Emergency response communications listed in the EPIPs are available and operational.</p> <ul style="list-style-type: none"> a. Communications systems are tested in accordance with the TSC, OSC, EOF and ENC activation checklists. b. Emergency response facility personnel are able to operate all specified communications systems. c. Clear primary and backup communications links are established and maintained for the duration of the exercise.

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Table 3.8-1 (Sheet 15 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			<p><i>E. Radiological Assessment and Control</i></p> <ol style="list-style-type: none"> 1. Demonstrate the ability to obtain onsite radiological surveys and samples. Standard Criteria: <ol style="list-style-type: none"> a. HP Technicians demonstrate the ability to obtain appropriate instruments (range and type) and perform surveys. b. Airborne samples are taken when the conditions indicate the need for the information. 2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers. Standard Criteria: <ol style="list-style-type: none"> a. Emergency workers are issued self-reading dosimeters when radiation levels require, and exposures are controlled to 10 CFR Part 20 limits (unless the Emergency Coordinator authorizes emergency limits for onsite ERO personnel and the Emergency Offsite Manager authorizes emergency exposures for offsite ERO personnel. b. Exposure records are available either from the Site database or a hard copy dose report. b. Exposure records are available either from the Site database or a hard copy dose report.

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Table 3.8-1 (Sheet 16 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>E. Radiological Assessment and Control (cont.)</i></p> <ul style="list-style-type: none"> c. Emergency workers include Security and personnel within all emergency facilities. <p>3. Demonstrate the ability to assemble and dispatch Field Monitoring Teams within 60 minutes from the decision to do so.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. One Field Monitoring Team is ready to be deployed within 60 minutes of being requested and no later than 90 minutes from the declaration of an Alert or higher. <p>4. Demonstrate the ability to satisfactorily collect and disseminate field team data.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Field team data to be collected is dose rate or counts per minute (cpm) from the plume, both open and closed window, and air sample (gross/net cpm) for particulate and iodine, if applicable.

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Table 3.8-1 (Sheet 17 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>E. Radiological Assessment and Control (cont.)</i></p> <ul style="list-style-type: none"> b. Radiological data is satisfactorily disseminated from the Field Team to the Dose Assessment Coordinator. <p>5. Demonstrate the ability to develop dose projections.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. The on-shift Chemistry Technician performs timely and accurate dose projections, in accordance with the EPIPs. <p>6. Demonstrate the ability to develop appropriate Protective Action Recommendations (PARs), and notify appropriate authorities within 15 minutes of a General Emergency declaration or changes in parameters that affect the previously issued PARs.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. Total Effective Dose Equivalent (TEDE) and Committed Dose Equivalent (CDE) dose projections from the dose assessment computer code or a backup method are established in accordance with the EPIPs.

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Table 3.8-1 (Sheet 18 of 18)
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (cont.)			
			<p><i>E. Radiological Assessment and Control (cont.)</i></p> <ul style="list-style-type: none"> b. PARS are developed within 15 minutes of data availability. c. PARs are transmitted via voice, fax, or electronically within 15 minutes as required by the EPIPs.
			<p>8.1.2 Onsite emergency response personnel were mobilized in sufficient numbers to fill emergency response positions identified in the Radiological Emergency Plan, Part 2, Section B, Emergency Response Organization, and they successfully performed their assigned responsibilities.</p>
			<p>8.1.3 The exercise was completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives were met, and there were no uncorrected offsite exercise deficiencies, or a license condition requiring offsite deficiencies to be corrected prior to operation above 5% of rated power.</p>
9.0 Implementing Procedures			
<p>10 CFR Part 50, App. E.V — No less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.</p>	<p>9.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days before fuel load.</p>	<p>9.1 Confirm that the submittal letter was submitted on time.</p>	<p>9.1 The date of the submittal letter from the licensee demonstrates that the detailed Emergency Plan Implementing Procedures (EPIPs) for the onsite emergency plan were submitted no less than 180 days prior to fuel load.</p>

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**Table 3.8-2
Pipe Rupture Hazards Analysis (Sheet 1 of 1)**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
<p>Systems, structures, and components (SSCs), that are required to be functional during and following a design basis event shall be protected against or qualified to withstand the dynamic and environmental effects associated with analyses of postulated failures in high and moderate energy piping.</p>	<p>Inspection of the as-designed pipe rupture hazard analysis report will be conducted. The report documents the analyses to determine where protection features are necessary to mitigate the consequence of a pipe break. Pipe break events involving high-energy fluid systems are analyzed for the effects of pipe whip, jet impingement, flooding, room pressurization, and temperature effects. Pipe break events involving moderate-energy fluid systems are analyzed for wetting from spray, flooding, and other environmental effects, as appropriate.</p>	<p>An as-designed pipe rupture hazard analysis report exists and concludes that the analysis performed for high and moderate energy piping confirms the protection of systems, structures, and components required to be functional during and following a design basis event.</p>

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Table 3.8-3
Piping Design (Sheet 1 of 1)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
The ASME Code Section III piping is designed in accordance with ASME Code Section III requirements.	Inspection of ASME Code Design Reports (NCA-3550) and required documents will be conducted for the set of lines chosen to demonstrate compliance.	ASME Code Design Report(s) (NCA-3550) (certified, when required by ASME Code) exist and conclude that the design of the piping for lines chosen to demonstrate all aspects of the piping design complies with the requirements of ASME Code Section III.