Levy Nuclear Plant Units 1 and 2

COL Application

Part 10

Proposed License Conditions (Including ITAAC)

Revision 2

Levy Nuclear Plant, Units 1 and 2 Proposed License Conditions

1. ITAAC (Inspections, Tests, Analyses, and Acceptance Criteria):

There are several ITAAC identified in the COLA. 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 Commission 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 COLA FSAR Table 1.8-202. Therefore, in accordance with the guidance in Regulatory Guide 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 COLA 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.

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
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			

SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	**Subject**	**From DCD Tier 2 Subsection**	**Implementation Milestone**
pipe rupture hazard 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.			
3.7-3	Seismic Interaction Review	3.7.5.3	Prior to initial fuel load
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.			
3.7-4	Reconciliation of Seismic Analyses of Nuclear Island Structures	3.7.5.4	Prior to initial fuel load
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.			
3.9-7	As-Designed Piping Analysis	3.9.8.7	Prior to installation of the piping and connected components in their final location
After a Combined License is issued, the following activity will be completed by the COL holder: 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.			
4.4-2	Confirm Assumptions for Safety Analyses DNBR Limits	4.4.7	Prior to initial fuel load
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.			

SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	**Subject**	**From DCD Tier 2 Subsection**	**Implementation Milestone**
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.			
5.3-1	Reactor Vessel Pressure – Temperature Limit Curves	5.3.6.1	Prior to initial fuel load
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.			
5.3-4	Reactor Vessel Materials Properties Verification	5.3.6.4.1	Prior to initial fuel load
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.			
9.1-7	Coupon Monitoring Program	9.1.6	Prior to commercial operation
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.			
10.2-1	Turbine Maintenance and Inspection	10.2.6	Prior to initial fuel load
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.			
13.6-5	Cyber Security Program	13.6.1	Prior to initial fuel load
The Combined License holder will develop and implement a cyber security program prior to initial fuel load.			
14.4-2	Test Specifics and Procedures	14.4.2	Prior to initial fuel load
NOTE –addressed by proposed License Condition Number 6.			

SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	**Subject**	**From DCD Tier 2 Subsection**	**Implementation Milestone**
14.4-3	Conduct of Test Program	14.4.3	Prior to initiating test program
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.			
14.4-4	Review and Evaluation of Test Results	14.4.4	Prior to initial fuel load
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.			
14.4-6	First-Plant-Only and Three-Plant-Only Tests	14.4.6	Prior to preoperational testing
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.			
15.0-1	Documentation of Plant Calorimetric Uncertainty Methodology	15.0.15.1	Prior to initial fuel load
Confirm the plant operating instrumentation installed for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus™ System. Additionally, confirm that administrative controls are in place to implement maintenance and contingency activities related to the system.			
19.59.10-1	As-Built SSC HCLPF Comparison to Seismic Margin Evaluation	19.59.10.5	Prior to initial fuel load
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. Spacial interactions are addressed by COL information item 3.7-3. Details of the process will be developed by the Combined License holder.			

SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	**Subject**	**From DCD Tier 2 Subsection**	**Implementation Milestone**
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: 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
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.			
19.59.10-3	Internal Fire and Internal Flood Analyses	19.59.10.5	Prior to initial fuel load
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 analysis 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			
19.59.10-4	Implement Severe Accident Management Guidance	19.59.10.5	Prior to startup testing
NOTE - addressed by proposed License Condition #6.			
19.59.10-5	Equipment Survivability	19.59.10.5	Prior to initial fuel load
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			

SUMMARY OF COMBINED LICENSE INFORMATION HOLDER ITEMS			
COL Item No.	**Subject**	**From DCD Tier 2 Subsection**	**Implementation Milestone**
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.			

3. OPERATIONAL PROGRAM IMPLEMENTAION:

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 Section 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 Prior to 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 byproduct, 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)
   C.6 – Deleted

D. Fuel Receipt – The licensee shall implement each operational program identified below prior to initial receipt of fuel on-site.
   D.1 – Fire Protection (applicable portions)
   D.2 – Radiation Protection (applicable portions)
   D.3 – Security Program (applicable portions)

D.4 – Deleted
D.5 – 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

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
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 SRM 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, safeguards contingency plan, and cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and

Section VIII of Appendix D to 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:

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 6 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 include a submittal schedule for:

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. the reactor vessel pressurized thermal shock evaluation at least 18 months prior to initial fuel load.

d. the approved preoperational and startup test procedures in accordance with FSAR Subsection 14.2.3.

e. the flow accelerated corrosion (FAC) program implementation schedule, including the construction phase activities.

f. 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.

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

<u>First-Plant-Only and First-Three-Plant-Only Testing</u>

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.

PROPOSED LICENSE CONDITION:
Prior to commencement of construction, the licensee shall submit a license amendment request that 1) identifies the NSSS vendor, architect-engineer, and constructor; 2) describes their technical qualifications; and 3) describes the division of responsibility among them.

8. STARTUP TESTING:
COLA 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 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:

<u>Pre-critical and Criticality Testing</u>

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 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 PLANNING ACTIONS:
The COL Application does not contain final versions of some implementation aspects of emergency planning such as EALs and Letters of Agreement because the information will not be developed until it is necessary to implement those aspects of the plan. Thus, COL applicants are proposing the following license condition.

PROPOSED LICENSE CONDITION:

A. Progress Energy-Florida shall submit a fully developed set of site-specific Emergency Action Levels (EALs) for Levy Units 1 [Unit 2] to the NRC in accordance with NEI 07-01 revision 0, with no deviations. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load.

B. Prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, PGN will have available for NRC inspection Letters of Agreement with entities listed on Appendix 3 of the LNP COLA Part 5, Emergency Plan. These Letters of Agreement will detail each entity's specific emergency planning responsibilities and certify the entity's concurrence with their responsibilities.

C. Prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, PGN will have available for NRC inspection the Letters of Agreement established with the following entities:

    a. Florida Division of Emergency Management

b. Citrus County, Florida Emergency Management Agency

c. Levy County, Florida Emergency Management Agency

d. Marion County, Florida Emergency Management Agency

These Letters of Agreement will certify each agency's concurrence with the emergency action levels described in LNP Units 1 and 2 COLA Part 5 Emergency Plan.

D. Prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, PGN will demonstrate the integrated capability and functionality of the Emergency Operations Facility for simultaneous-dual activation of the Facility by the LNP and Crystal River Unit 3 Emergency Response Organizations for a simulated emergency condition. Integrated communication and data capability and functionality will include the LNP and Crystal River Technical Support Center, NRC site-teams, NRC Incident Response Centers, and other Federal, State, and local coordination centers as appropriate.

Appendix A: Environmental Protection Plan (Nonradiological)

1.0 Objectives of the Environmental Protection Plan

The purpose of the Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental resources during construction and operation of the nuclear facility. The principal objectives of the EPP are as follows:

(1) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Impact Statement (FEIS) and other NRC environmental impact assessments.

(2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.

(3) Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FEIS, which relate to water quality matters, are regulated by way of the licensee's NPDES permit.

2.0 Environmental Protection Issues

In the FEIS dated [month year], the staff considered the environmental impacts associated with the construction and operation of the Levy Nuclear Plant, Units 1 and 2 (LNP 1 and 2). Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

2.1 Aquatic Issues

No specific nonradiological aquatic impact issues were identified by NRC staff in the FEIS.

2.2 Terrestrial Issues

No specific nonradiological terrestrial impact issues were identified by NRC staff in the FEIS.

3.0 Consistency Requirements

3.1 Plant Design, Construction, and Operation Activities

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP*. Changes in station design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional construction or operational activities, which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site-areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

A proposed change, test, or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FEIS, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level; or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1 of this EPP) brief descriptions, analyses, interpretations, and evaluations of such changes, tests, and experiments.

* This provision does not relieve the licensee of the requirements of 10 CFR 50.59.

3.2 Reporting Related to the NPDES Permit and State Certification

Changes to, or renewals of, the NPDES Permits or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. 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.

The licensee shall notify the NRC of changes to the effective NPDES Permit proposed by the licensee by providing 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 a copy of the application for renewal of the NPDES Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1 of this EPP.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

The licensee shall evaluate and report to the NRC Operations Center within 24 hours (followed by a written report in accordance with Section 5.4 of this EPP) any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to the construction activities or plant operation. The following are examples of unusual or important environmental events: on-site plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, unusual fish kills, unusual increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances.

Routine monitoring programs are not required to implement this condition.

4.2 Environmental Monitoring

4.2.1 Aquatic Monitoring

No specific nonradiological aquatic monitoring requirements were identified by NRC staff in the FEIS.

4.2.2 Terrestrial Monitoring

No specific nonradiological terrestrial monitoring requirements were identified by NRC staff in the FEIS.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently; they may not be conducted by 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.

5.2 Records Retention

The licensee shall make and retain records associated with this EPP in a manner convenient for review and inspection and shall make them available to the NRC on request.

The licensee shall retain records of construction and operation activities determined to potentially affect the continued protection of the environment for the life of the station. The licensee shall retain all other records relating to this EPP for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in the Environmental Protection Plan

Requests for changes in the EPP shall 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 in the form of a permit amendment incorporating the appropriate revision to the EPP.

5.4 Reporting Requirements

5.4.1 Routine Reports

An Annual Nonradiological Environmental Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to June 1 of each year. The initial report shall be submitted prior to June 1 of the year following issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Section 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Nonradiological Environmental Report shall also include:

(1) A list of EPP noncompliances and the corrective actions taken to remedy them.

(2) A list of changes in station design or operation, tests, and experiments made in accordance with Section 3.1 of this EPP, which involved a potentially significant unreviewed environmental question.

(3) A list of nonroutine reports submitted in accordance with Subsection 5.4.2 of this EPP.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

The licensee shall submit a written report to the NRC within 30 days of occurrence of any event described in Section 4.1 of this plan. The report should:

(1) Describe, analyze, and evaluate the event, including the extent and magnitude of the impact, and site preparation and preliminary construction activities underway at the time of the event,

(2) Describe the likely cause of the event.

(3) Indicate the action taken to correct the reported event.

(4) Indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar site preparation and preliminary construction activities.

(5) Indicate the agencies notified and their preliminary responses.

For events reportable under this subsection that also require reports to other Federal, State or local agencies, the licensee shall report in accordance with those reporting requirements in lieu of the requirements of this subsection. The licensee shall provide the NRC with a copy of such report at the same time it submits it to the other agency.

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

Inspection, Test, Analysis and Acceptance Criteria

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.

2.6.13 Offsite Retail Power System

No entry for this system.

Include the following non-system ITAAC after DCD Tier 1 Section 3.7.

Emergency Planning ITAAC

The emergency planning ITAAC are included in attached Table 3.8-1.

Waterproof Membrane

The waterproof membrane ITAAC are included in the attached Table 3.8-2.

Roller Compacted Concrete

The roller compacted concrete ITAAC are included in attached Table 3.8-3.

Turbine Building, Radwaste Building, and Annex Building Drilled Shaft Foundations

The ITAAC that are applicable to the drilled shaft foundations that support these buildings are included in attached Table 3.8-4.

Pipe Rupture Hazard Analysis ITAAC

The ITACC for Pipe Rupture Hazard Analysis are included in attached Table 3.8-5.

Piping Design ITAAC

The ITAAC for Piping Design are included in attached Table 3.8-6.

TABLE 2.6.9-2 – 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 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.	Inspections will be performed of the isolation zones in outdoor areas adjacent to the physical barrier at the perimeter of the protected area.	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.
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 intrusion detection equipment within the isolation zones.	The isolation zones are equipped with intrusion detection equipment that provides the capability to detect and assess unauthorized persons.

TABLE 2.6.9-2 – SITE-SPECIFIC PHYSICAL SECURITY INSPECTIONS, TESTS, ANALYSES AND ACCEPTANCE CRITERIA		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
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 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..
5. Access control points are established to: a) control personnel and vehicle access into the protected area. b) detect firearms, explosives, and incendiary devices at the protected area personnel access points.	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.	The access control points for the protected area: 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.
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.	A test of the access control system with numbered picture badges will be performed.	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.

TABLE 2.6.9-2 – SITE-SPECIFIC PHYSICAL SECURITY INSPECTIONS, TESTS, ANALYSES AND ACCEPTANCE CRITERIA		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
7. Access to vital equipment physical barriers requires passage through the protected area perimeter barrier.	Inspection will be performed to confirm that access to vital equipment physical barriers requires passage through the protected area perimeter barrier.	Vital equipment is located within a protected area such that access to vital equipment physical barriers requires passage through the protected area perimeter barrier.
8. a) Penetrations through the protected area barrier are secured and monitored. 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.	Inspections will be performed of penetrations through the protected area barrier. Inspections will be performed of unattended openings that intersect the protected area boundary or vital area boundary.	Penetrations and openings through the protected area barrier are secured and monitored. 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.
9. Emergency exits through the protected area perimeter are alarmed and secured with locking devices to allow for emergency egress.	Tests, inspections, or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.

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

Table 2.6.12-1 Offsite Power System		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
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.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Assignment of Responsibility – Organizational Control			
10 CFR 50.47(b)(1) – Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principle response organization has staff to respond and to augment its initial response on a continuous basis.	1.1 The staff exists to provide 24-hour per day emergency response and manning of communications links, including continuous operations for a protracted period. [A.1.e, A.4]** [**References in brackets throughout this table correspond to with NUREG_0654/FEMA-REP-1 Evaluation Criteria]	1.1 An inspection of the emergency plan implementing procedures will be performed.	1.1 Emergency plan implementing procedures provide for 24-hour per day emergency response staffing and manning of communications links, including continuous operations for a protracted period.
2.0 Onsite Emergency Organization			
10 CFR 50.47(b)(2) – On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.	2.1 The staff exists to provide minimum and augmented on-shift staffing levels, consistent with Table B-1 of NUREG-0654/FEMA-REP-1, Rev. 1. [B.5, B.7]	2.1 An inspection of the emergency plan implementing procedures will be performed.	2.1 Emergency plan implementing procedures provide minimum and augmented on-shift staffing levels, consistent with Table B-1 of the Levy Nuclear Plant Units 1 & 2 Combined License (COL) Application Emergency Plan.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 2 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Classification System			
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.	3.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.2]	3.1 An inspection of the Control Rooms, Technical Support Centers (TSCs), and Emergency Operations Facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters are specified in the Emergency Classification and EAL scheme and the displays are functional.	3.1 The specified parameters are retrievable in the Control Rooms, TSC and EOF, and the ranges of the displays encompass the values specified in the Emergency Classification and EAL scheme.
4.0 Notification Methods and Procedures			
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.	4.1 The means exists to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.2] 4.2 The means exists to notify emergency response personnel. [E.1]	4.1 A test will be performed to demonstrate the capabilities for providing initial notification to the offsite authorities after a simulated emergency classification. 4.2 A test of the primary and back-up ERO notification systems will be performed.	4.1 The State of Florida and the counties of Levy, Citrus, and Marion receive notification within 15 minutes after the declaration of an emergency from the control room and the EOF. 4.2 The primary and back-up ERO notification system tests result in: • Emergency response personnel receiving the notification message; • Mobilization communication is validated by personnel response to the notification system or by telephone; • Response to electronic notification and plant page system is accomplished during normal working hours, and off hours.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 3 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	4.3 The means exists to notify and provide instructions to the populace within the plume exposure EPZ. [E.3]	4.3 The full test of notification capabilities will be conducted.	4.3 Notification and clear instructions to the public are successfully accomplished in accordance with the emergency plan requirements.
5.0 Emergency Communications			
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	5.1 The means exists for communications among the Control Rooms, TSCs, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F3, F.5]	5.1 A test will be performed of the capabilities. The test for the contact with the principal EOCs and the radiological field assessment teams will be from the Control Room and the EOF. The TSC communication with the Control Room and the EOF will be performed.	5.1 Communications (both primary and secondary methods/systems) are established between the Control Rooms, TSC and the EOF with Florida Division of Emergency Management (DEM) warning point and EOC; Levy County Warning Point and EOC; Citrus County Warning Point and EOC; and Marion County Warning Point and EOC. Communications are established between the Control Rooms, TSC and the EOF with the LNP radiological field monitoring teams.
	5.2 The means exists for communications from the Control Rooms, TSCs, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data System (ERDS) [or its successor system] between the onsite computer system and the NRC Operations Center.) [F.2.6]	5.2 A test is performed of the capabilities to communicate using ENS from each operating Control Room, TSC and EOF to the NRC headquarters and regional office EOCs. The Health Physics Network (HPN) is tested to ensure communications between the TSC and EOF with the NRC Operations Center. ERDS is established [or its successor system] between the onsite computer systems and the NRC Operations Center.	5.2 Communications are established between the Control Rooms, TSC and EOF to the NRC headquarters and regional office EOCs utilizing the ENS. The TSC and EOF demonstrate communications with the NRC Operations Center using HPN. The access port for ERDS [or its successor system] is provided and successfully completes a transfer of data from the plant computer system to the NRC Operations Center.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 4 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 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.	6.1 The licensee has provided space which may be used for a limited number of the news media. [H.1.5]	6.1 A test of the facility/area provides adequate equipment to support ENC operation, including communications with the site and with the Emergency Operation Centers in the state and emergency planning zone (EPZ) counties.	6.1 The ENC includes equipment to support ENC operations, including communications with the EOF and State and EPZ County EOCs.
7.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	7.1 The licensee has established a TSC and onsite OSC. [The TSC and OSC may be combined at a single location.] [H.1.2, H.1.3, Annexes 1 and 2]	7.1.1 An inspection of the as-built TSCs and OSCs will be performed, including a test of the capabilities. These facilities will meet the criteria of NUREG-0696.	7.1.1 Each TSC has at least 1875 ft^2 of floor space (75 ft^2 per person for a minimum of 25 persons). 7.1.2 The TSC is close to the control room, and the walking distance from the TSC to the control room does not exceed two minutes. 7.1.3 Communications equipment is installed, and voice transmission and reception are accomplished between the Control Rooms, TSC, OSCs, and EOF.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 5 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			7.1.4 The TSC ventilation systems include a high efficiency particulate air (HEPA), and charcoal filter and radiation monitors are installed. 7.1.5 The TSC receives, stores, processes, and displays plant and environmental information, and enables the initiation of emergency measures and the conduct of emergency assessment. These capabilities are demonstrated during testing and acceptance activities. 7.1.6 There is an OSC located inside the Unit's Protected Area. It is separate from the Control Room and TSC within the Protected Area. 7.1.7 Communications equipment is installed, and voice transmission and reception are accomplished between the OSC and OSC Teams, the TSC, and Control Rooms.
	7.2 The licensee has established an EOF. [H.1.4]	7.2 A test of the EOF will be performed, including a test of the capabilities.	7.2.1 Communications equipment is installed and voice transmission and reception are accomplished between the Control Rooms, TSC, EOF, radiological monitoring teams (RMTs), NRC, State and county agencies, and ENS. 7.2.2 Radiological data, meteorological data, and plant system data is acquired, displayed and evaluated pertinent to offsite protective measures in the EOF.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 6 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	7.3 The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1. [H.5]		7.3 The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1. EALs will be classified within 15 minutes or less of initiating condition.
	7.4 The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. [H.6]	7.3 – 7.6 A test will be performed of the capabilities.	7.4 The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. EALs using offsite does monitoring and analysis equipment will be made within 15 minutes of initiating conditions.
	7.5 The means exists to provide offsite radiological monitoring equipment in the vicinity of the nuclear facility. [H.7]		7.5 The means exists to provide offsite radiological monitoring equipment in the vicinity of LNP for environmental monitoring including environmental monitoring team dosimetry.
	7.6 The means exists to provide meteorological information, consistent with Appendix 2 of NUREG-0654/FEMA-REP-1, Rev. 1. [H.8]		7.6 The means exists to provide meteorological information, consistent with Appendix 2 of NUREG-0654/FEMA-REP-1, Rev. 1. LNP meteorological equipment will be able to assess and monitor actual or potential offsite consequences of a radiological condition related to atmospheric measurements.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 7 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 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.	8.1 The means exists to provide initial and continuing radiological assessment throughout the course of an accident. [I, I.3]	8.1 A test will be performed to demonstrate that the means exists to provide initial and continuing radiological assessment throughout the course of an accident through the plant computer or communications with the Control Room.	8.1 Using selected monitoring parameters, simulated degraded plant conditions are assessed, and protective actions are initiated in accordance with the following criteria: A. Accident Assessment and Classification 1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the drill. B. Radiological Assessment and Control 1. Demonstrate the ability to obtain onsite radiological surveys and samples. 2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 8 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			3. Demonstrate the ability to activate radiological monitoring teams within 75 minutes of event declaration. 4. Demonstrate the ability to satisfactorily collect and disseminate field team data. 5. Demonstrate the ability to develop dose projections. 6. Demonstrate the ability to make the decision whether to issue radioprotective drugs (KI) to emergency workers. 7. Demonstrate the ability to develop appropriate protective action recommendations (PARs) and notify appropriate authorities within 15 minutes of development.
	8.2 The means exists 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]	8.2 A test will be performed to demonstrate that the means exists 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.	8.2 Emergency plan implementing procedures provide sufficient direction to calculate the source terms and the magnitude of the release of postulated accident scenario releases.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 9 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	8.3 The means exists 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]	8.3 A test will be performed to demonstrate that the impact of a radiological release to the environment is able to be assessed by utilizing the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions.	8.3 Response personnel can 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.
	8.4 The means exists to acquire and evaluate meteorological information. [I.6]	8.4 A test will be performed to acquire and evaluate meteorological data/information.	8.4 The following parameters are displayed in the TSC and Control Room: • Wind speed (at 10m and 60m) • Wind direction (at 10m and 60m) • Delta-temperature (between 10m and 60m) • Ambient temperature (at 10m and 60m) • Dew point temperature (at 10m) • Precipitation (at 2m) This data is in the format needed for the appropriate emergency plan implementing procedures.
	8.5 The means exists to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable. [I.4]	8.5 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.	8.5 A drill or exercise is conducted that demonstrates the capability to determine the release rate and projected doses with the instrumentation used for assessment off-scale or inoperable.
	8.6 The means exist for field monitoring within the plume exposure EPZ. [I.7]	8.6 A test will be performed of the capabilities for field monitoring within the plume exposure EPZ.	8.6 A drill or exercise is conducted that demonstrates the ability of the field monitoring teams to be dispatched and locate and monitor a radiological release within the plume exposure EPZ.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 10 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	8.7 The means exists 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]	8.7 A test will be performed of the capabilities to make rapid assessments of actual or potential magnitude and locations of an radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times.	8.7 A drill or exercise is conducted that demonstrates the capability to activate the field team(s). The team(s) demonstrates the capability 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 team is capable of being notified, activated, briefed and dispatched from the EOF during a radiological release scenario. The team demonstrates conformance with procedural guidance for team composition, use of monitoring equipment, communication from the field, and locating specific sampling locations.
	8.8 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions. [I.7.1]	8.8 A test will be performed of the capabilities detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions.	8.8 A drill or exercise is conducted that demonstrates the capability of a field team to be dispatched during a radiological release scenario and use sampling and detection equipment for air concentrations in the plume exposure EPZ, as low as 10^{-7} µCi/cc.
	8.9 The means exists to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.4]	8.9 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.	8.9 A drill or exercise is conducted that demonstrates the ability to estimate integrated dose from the dose assessment program and the field monitoring team reading during a radioactive release scenario for the following radioisotopes: Kr-88, Ru-106, I-131, I-132, I-133, I-134, I-135, Te-132, Xe-133, Xe-135, Cs-134, Cs-137, Ce-144. Results are compared with the PAGs.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 11 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
9.0 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.	9.1 The means exists to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including:[J.1.1] 1. employees not having emergency assignments; 2. visitors; 3. contractor and construction personnel; and 4. Other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area.	9.1 A test will be performed of the capabilities.	9.1 The following objectives to warn and advise onsite individuals using the plant public address system are successfully satisfied during a drill or exercise: A. Demonstrate the ability to perform assembly and accountability for all onsite individuals, including those identified below, within 30 minutes of an emergency requiring protected area evacuation and accountability: 1. non-essential employees; 2. visitors; 3. contractor and construction personnel. B. Demonstrate the ability to warn and advise other personnel within the owner controlled area in a timely manner (about 15 minutes). C. Demonstrate the ability to perform site dismissal.
	9.2 The means exist to radiological monitor people evacuated from the site. [K.4]	9.2 A test will be performed of the capabilities.	9.2 A drill or exercise is conducted that demonstrates the capability to radiologically monitor people evacuated from the site. Equipment is available, and personnel have been assigned and trained to procedures that are approved and in place to accomplish this activity.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 12 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	9.3 The means exists to notify and protect all segments of the transient and resident populations. [J.2.1]	9.3 A test will be performed of the capabilities.	9.3 A drill or exercise is conducted to demonstrate the capability of the Public Alert and Notification System to successfully initiate a broadcast message to notify and protect all segments of the transient and resident populations.
10.0 Radiological Exposure Control			
10 CFR 50.47(b)(11) – Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity PAGs.	10.1 The means exists to provide onsite radiation protection. [K.2]	10.1 An analysis of site procedures will be performed.	10. 1 Site Procedures provide the means for onsite radiation protection.
	10.2 The means exists to provide 24-hour-per-day capability to determine the doses received by emergency personnel and maintain dose records. [K.3]	10.2 An analysis of emergency plan implementing procedures will be performed.	10.2 Emergency plan implementing procedures provide the means for 24-hour per-day capability to determine the doses received by emergency personnel and maintain dose records.
	10.3 The means exists to decontaminate relocated onsite and emergency personnel, including waste disposal. [K5.b, K.7]	10.3 An analysis of emergency plan implementing procedures will be performed.	10.3 Emergency plan implementing procedures provide a means to decontaminate relocated onsite and emergency personnel, including waste disposal.
	10.4 The means exists to provide onsite and contamination control measures. [K.6]	10.4 An analysis of site procedures will be performed.	10.4 Site procedures provide the means for onsite contamination control measures.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 13 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
11.0 Medical and Public Health Support			
10 CFR 50.47(b)(12) – Arrangements are made for medical services for contaminated, injured individuals.	11.1 Arrangements have been implemented for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake. [L.1]	11.1 An analysis of emergency plan implementing procedures will be performed.	11.1 Arrangements have been implemented for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake per Letter(s) of Agreement and emergency plan implementing procedures.
	11.2 The means exist for onsite first aid capability. [L.2]	11.2 An analysis of station procedures and emergency plan implementing procedures will be performed.	11.2 The means exist for onsite first aid capability to include a designated first aid station, supplies and site medical response team per station procedures and Emergency plan implementing procedures.
	11.3 Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities. [L.4]	11.3 An analysis of emergency plan implementing procedures will be performed.	11.3 Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities per Letter(s) of Agreement and emergency plan implementing procedures.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 14 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
12.0 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.	12.1 Licensee conducts a full participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State and local agency within the plume exposure EPZ, and each State within the ingestion control EPZ. [N.1]	12.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.	12.1.1 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, onsite exercise objectives listed below have been met, and there are no uncorrected onsite exercise deficiencies. *A. Accident Assessment and Classification* 1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. The appropriate EAL condition associated with a parameter or symptom was recognized. b. The correct emergency classification is declared within 15 minutes of the time that the EAL condition was present.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 15 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			B. Notifications 1. Demonstrate the ability to alert, notify and mobilize site emergency response personnel, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Initiate a plant page announcement using the appropriate message scenario for ERO notification. b. Activate the computer based automated callout system at declaration of an Alert classification or higher. 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, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Transmit information to state and local agencies within 15 minutes of event classification. b. Transmit follow-up information to state and local agencies within 60 minutes of last transmittal.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 16 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			c. Transmit information within 60 minutes of event classification for an initial notification to the NRC. 3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions in a timely manner (about 15 minutes), in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Initiate notification of onsite individuals of event declaration (via plant page, telephone, etc.) 4. Demonstrate the capability of the Public Alert and Notification System to operate properly for public notification when required, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Greater than 94% of ANS sirens are capable of performing their function as indicated by the feedback system. The clarifying notes listed in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, will be used for this test.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 17 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			C. Emergency Response 1. Demonstrate the capability to direct and control emergency operations, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Facility command and control is demonstrated by the Nuclear Shift Manager - Operations in the Control Room (simulator) upon event declaration, and by the Emergency Coordinator - TSC in the Technical Support Center (TSC) and the EOF Director in the Emergency Operations Facility (EOF) within 60-75 minutes of ERO notification. 2. Demonstrate the ability to transfer overall command and control from the Nuclear Shift Manager - Operations in the Control Room (simulator) to the Emergency Coordinator - TSC in the TSC and EOF Director in the EOF, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Evaluation of briefings that were conducted prior to turnover includes current plant conditions, radiological release information, response efforts and priorities, and the formal relief of delegable and non-delegable responsibilities.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 18 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			3. Demonstrate the ability to maintain continuous staffing of the emergency response facilities for a protracted period, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Complete shift relief schedule adequate to support 24-hour staffing. 4. Demonstrate the ability to perform assembly and accountability for all onsite individuals within 30 minutes of an emergency requiring a Protected Area evacuation and accountability, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. All Protected Area personnel are assembled in their designated assembly area and accountability is completed within 30 minutes of an emergency requiring Protected Area evacuation and accountability.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 19 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			D. Emergency Response Facilities 1. Demonstrate activation of the Operations Support Center (OSC), Technical Support Center (TSC), Emergency Operations Facility (EOF), and Emergency News Center (ENC), in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. The TSC and OSC, are activated within approximately one (1) hour of an Alert or higher emergency declaration with at least minimum staffing. b. The EOF is activated within approximately one (1) hour of a Site Area Emergency or higher emergency declaration with at least minimum staffing. c. The ENC minimum staffing positions are available within approximately two (2) hours of a Site Area Emergency or higher emergency declaration. 2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC, EOF, and ENC, as appropriate, in accordance with emergency plan implementing procedures.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 20 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			Standard Criteria: a. The adequacy of the emergency equipment in the emergency response facilities, including availability and consistency with emergency plan implementing procedures, supported the accomplishment of all of the evaluated performance objectives. b. The Security Coordinator implements and performs all appropriate steps from the emergency plan implementing procedures for the ingress, egress, and control of onsite and offsite personnel responding to the site during the scenario. c. The Radiation Controls Coordinator and staff correctly implement and perform all appropriate steps from the emergency plan implementing procedures when a simulated onsite/offsite release has occurred during the scenario. 3. Demonstrate communications from the emergency response facilities and the adequacy of communications for all emergency support resources, in accordance with emergency plan implementing procedures. Standard Criteria: a. Emergency response communications are available and operational.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 21 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			b. Communications systems are adequate to support CR, TSC, OSC, EOF, and ENC activation. c. Demonstrate emergency response personnel are able to operate all specified communication systems. d. Clear primary and backup communications links are established and maintained for the duration of the exercise. *E. Radiological Assessment and Control* 1. Demonstrate the ability to obtain onsite radiological surveys and samples. <u>Standard Criteria:</u> a. RP personnel demonstrate the ability to obtain appropriate instruments (range and type) and take surveys for scenario conditions that allow EPA PAGs to be exceeded. b. Airborne samples are properly taken, reported and assessed and utilized when the conditions indicate the need for the information. 2. Demonstrate the capability to establish emergency exposure guidelines consistent with EPA-400 and the ability to continuously monitor and control radiation exposure to emergency workers.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 22 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			Standard Criteria: a. Demonstrate the ability to determine doses received by emergency personnel and volunteers 24 hours/day and provisions for distribution of both self-reading and permanent record devices. b. Demonstrate that exposures are controlled to 10 CFR Part 20 limits until the Emergency Coordinator authorizes the use of emergency EPA limits. c. Exposure records are available, either from the ALARA computer or a hard copy dose report, and are updated and reviewed throughout the scenario. 3. Demonstrate the methods, equipment, and expertise available to make rapid assessments of the actual or potential magnitude and locations of radiological hazards from both gaseous and liquid pathways. Standard Criteria: a. One environmental monitoring team is ready to be deployed no later than 60 minutes (45 minutes to activate per Table B-1 of LNP Emergency Plan + 15 minutes for briefing) from the declaration of an Alert or higher emergency. 4. Demonstrate the ability to satisfactorily collect and disseminate field team data.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 23 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			Standard Criteria: a. Offsite radiological environmental data collected is provided as dose rate and counts per minute (cpm) from the plume, both open and closed window, and air sample (gross and net cpm) for particulate and iodine, if applicable. b. Offsite radiological environmental data is communicated from the environmental monitoring team to the Environmental Field Coordinator. 5. Demonstrate the ability to estimate integrated dose from projected and actual dose rates and to compare these estimates with EPA Protective Action Guidelines (PAGs). Standard Criteria: a. The Dose Projection Team Leader and Dose Projection Team perform dose projections in accordance with emergency plan implementing procedures, and report them to the Radiation Controls Manager. 6. Demonstrate the availability and use of potassium iodide (KI) for onsite emergency response personnel.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 24 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			Standard Criteria: a. KI is considered as a potential dose reducing option for situations where airborne radioactive iodine is present. b. KI was administered for activities where personnel dose to the thyroid was calculated, or estimated, to be > 25 Rem CDE. 7. Demonstrate the ability to recommend protective actions to appropriate offsite authorities, in accordance with emergency plan implementing procedures. Standard Criteria: a. Total effective dose equivalent (TEDE) and committed dose equivalent (CDE) to the thyroid dose projections from the dose assessment model are compared to the PAGs. b. PARs are developed within 15 minutes of the time information of the condition warranting a PAR was available to the ERO.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 25 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			c. PARs are transmitted within 15 minutes of development. Changes to recommendations are communicated to offsite authorities within 15 minutes of a new PAR. *F. Public Information* 1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Information provided to the media/public is prepared at a level that the public can understand. Visuals and handouts are provided as needed to clarify the information. b. Information is coordinated with Federal, State and local agencies to maintain factual consistency. c. Media briefings are provided within approximately 60 minutes of significant events (i.e., declaration of a Site Area Emergency or initiation of a radiological release.)

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 26 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. Calls are answered in a timely manner with the correct information. b. Calls are returned or forwarded, as appropriate, to demonstrate responsiveness. c. Rumors are identified and addressed, and recurring rumors are addressed in subsequent press briefings and news releases. *G. Recovery and Reentry* 1. Demonstrate the ability to enter recovery and reentry conditions, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. The appropriate EAL condition and emergency classification is downgraded to a lower classification or terminated. b. Proper notifications are made to onsite and offsite emergency response agencies, including State and local agencies.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 27 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			H. Evaluation 1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action, in accordance with emergency plan implementing procedures. <u>Standard Criteria:</u> a. An exercise time line is developed, followed by an evaluation of the objectives against the expectations of the timeline. b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved. c. Areas requiring improvement are entered in the Levy Corrective Action Program.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 28 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
			12.1.2 Onsite emergency response personnel are mobilized in sufficient numbers to fill emergency response positions and successfully perform assigned responsibilities (see Note 1). 12.1.3 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50 and offsite exercise objectives have been met. If offsite exercise deficiencies do exist and have not been corrected, the licensee will propose a license condition that requires offsite deficiencies to be addressed prior to operation above 5% of rated power. (Note 1: The assigned responsibilities for onsite Emergency Response Organization members are identified in Sections B.1 through B.7 of the Levy COL Application Emergency Plan and Emergency Plan Implementing Procedures.)
13.0 Radiological Emergency Response Training			
10 CFR 50.47(b)(15) – Radiological emergency response training is provided to those who may be called on to assist in an emergency.	13.1 Site-specific emergency response training has been provided for those who may be called upon to provide assistance in the event of an emergency. [O.1]	13.1 An inspection of the emergency response organization training program will be performed.	13.1 Site-specific emergency response training has been provided for the: • LNP emergency response organization, and • Offsite medical, local law enforcement and firefighter personnel that may be called upon to provide assistance in the event of an emergency as documented on training records.

Table 3.8-1
Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 29 of 29)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
14.0 Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans			
10 CFR 50.47(b)(16) – Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.	14.1 The emergency response plans have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. [P.5]	14.1 An inspection of the distribution list will be performed.	141.1 The LNP emergency response plan was forwarded to Florida Emergency Management, Citrus County Emergency Management, Levy County Emergency Management and Marion County Emergency Management.
15.0 Implementing Procedures			
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.	15.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.	15.1 An inspection of the submittal letter will be performed.	15.1 Date of submittal letter from the licensee demonstrates that the detailed implementing procedures for the onsite emergency plan were submitted no less than 180 days prior to fuel load.

Table 3.8-2
Waterproof Membrane Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 1)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
The friction coefficient to resist sliding is ≥ 0.55.	Testing will be performed to confirm that the mudmat-waterproofing-RCC interface beneath the Nuclear Island basemat has a coefficient of friction to resist sliding of ≥ 0.55.	A report exists and documents that the as-built waterproof system (mudmat-waterproofing-RCC interface) has a coefficient of friction of ≥ 0.55 as demonstrated through material qualification testing.

Table 3.8-3
Roller Compacted Concrete Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 1)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
The 35 foot thick RCC Bridging mat is seismic Category I and is designed and constructed to bridge over the design basis karst feature when subjected to design basis loads as specified in the Design Description in FSAR 2.5.4.5.4 without loss of structural integrity and the safety related functions.	i) An inspection of the bridging mat will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis karst feature when subjected to design basis loads. ii) An inspection of the as-built RCC thickness will be performed.	i) A report exists which reconciles deviations during construction and concludes that the as-built RCC bridging mat conforms to the approved design and will bridge over a design basis karst feature when subjected to design basis loads specified in the Design Description without loss of structural integrity and the safety related functions ii) A document exists that verifies that the as-built thickness of the RCC bridging mat is at least 35 feet.

Table 3.8-4
Drilled Shaft Foundation Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 1)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
Drilled Shaft Foundations for the Turbine, Radwaste, and Annex Buildings will preclude movement in excess of the separation provided between the structural elements of the Turbine, Radwaste, and Annex buildings and the nuclear island structures	Inspection of the as-built drilled shaft foundation physical arrangement will be performed	A report exists that reconciles the as-built physical arrangement of the drilled shaft foundations for the Turbine, Radwaste, and Annex Buildings with the design drawings.

Table 3.8-5
Pipe Rupture Hazards Analysis (Sheet 1 of 1)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
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.	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.	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.

Table 3.8-6
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.