Progress Energy

Serial: NPD-NRC-2009-247
December 18, 2009

10CFR52.79

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

LEVY NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 52-029 AND 52-030
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 074 RELATED TO EMERGENCY PLANNING

Reference: Letter from Denise L. McGovern (NRC) to Garry Miller (PEF), dated November 19, 2009, "Request for Additional Information Letter No. 074 Related to SRP Section 13.3 for the Levy County Nuclear Plant, Units 1 and 2 Combined License Application"

Ladies and Gentlemen:

Progress Energy Florida, Inc. (PEF) hereby submits our response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in the referenced letter.

A response to the NRC request is addressed in the enclosure. The enclosure also identifies changes that will be made in a future revision of the Levy Nuclear Plant Units 1 and 2 application.

If you have any further questions, or need additional information, please contact Bob Kitchen at (919) 546-6992, or me at (727) 820-4481.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 18, 2009.

Sincerely,

John Elnitsky
Vice President
Nuclear Plant Development

Enclosure/Attachment

cc : U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager

Progress Energy Florida, Inc.
P.O. Box 14042
St. Petersburg, FL 33733

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NRO

Levy Nuclear Plant Units 1 and 2
Response to NRC Request for Additional Information Letter No. 074 Related to SRP Section 13.3 for the Combined License Application, dated November 19, 2009

NRC RAI #	Progress Energy RAI #	Progress Energy Response
13.03-28	L-0593	Response enclosed – see following pages
13.03-29	L-0594	Response enclosed – see following pages
13.03-30	L-0595	Response enclosed – see following pages
13.03-31	L-0596	Response enclosed – see following pages
13.03-32	L-0597	Response enclosed – see following pages
13.03-33	L-0598	Response enclosed – see following pages
13.03-34	L-0599	Response enclosed – see following pages
13.03-35	L-0600	Response enclosed – see following pages

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-28

Text of NRC RAI:

Assignment of primary responsibilities for emergency response

Basis: 10 CFR 50.47(b)(1); NUREG-0654/FEMA-REP-1 Evaluation Criterion A.1.a; Evaluation Criterion A.1.b; Evaluation Criterion A.1.c; 10 CFR 50, Appendix E.IV.A.7, Appendix E.IV.A.8

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1, 2 and 18

In response to RAI 13.03-17(B), the applicant stated that they intend to interface with local, State, and County agencies in the same manner as the Crystal River Plant currently operated by Progress Energy. In addition, the applicant stated that independent Letters of Agreement or Certification for local law enforcement agencies are not contained in the Crystal River Nuclear Plant Emergency Plan and are not needed for the Levy plan.

1. Appendix E.IV.A.7 to 10 CFR 50 requires a description of, and assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies. NUREG-0654/FEMA-REP-1, evaluation criterion II.A.1.a states that each plan shall identify the State, local, Federal and private sector organizations (including utilities), that are intended to be part of the overall response organization for Emergency Planning Zones. **Include a description of the emergency support function and responsibility of local law enforcement in the LNP Emergency Plan.**

2. The Letters of Certification and Letters of Agreement provided as an Appendix to the LNP Emergency Plan state that actual emergency planning arrangements would be finalized in a revised letter of agreement, or formal letter of agreement, at a later stage in the new facilities' licensing process. **Propose a License Condition providing for verification that the finalized or formal letters of agreement are current, and in place, prior to fuel load.**

PGN RAI ID #: L-0593

PGN Response to NRC RAI:

1. The primary function and responsibility of local law enforcement agencies (LLEA) for the LNP Emergency Response Organization is to maintain area security and law enforcement within the 10-mile Emergency Planning Zone and at reception centers and shelters located in Citrus, Marion and Lee County. Support functions for LLEA include managing county-wide law enforcement activities including traffic control, controlling ingress and egress, and establishing traffic control points to ensure safe passage of evacuees to shelter. If directed, the County Sheriff Office's will coordinate operations to evacuate the population from the affected area to shelters. Local law enforcement agencies consist of:

    - Citrus County Sheriff's Office Patrol Division

- Levy County Sheriff's Office Patrol Division
- Marion County Sheriff's Office
- Inglis Police Department
- Florida Department of Law Enforcement

Additional details for LLEA description of authority, responsibilities, and duties of each organization is presented in their respective State of Florida and/or County emergency plans.

A future revision to Part 5, Emergency Plan of the LNP COLA will include a general description of the emergency support function and responsibility of LLEA as described above.

2. Emergency planning arrangements have been established between PGN and State and local governmental agencies and private sector organizations supporting the Levy Units 1 and 2 emergency response effort as provided in Certification Letters for LNP COLA Part 5. LNP COLA Part 5, Emergency Plan Appendix 3, Letters of Agreement, contains a list of organizations, both governmental and private that may be required to support the Levy Units 1 and 2 Emergency Response Organization in the event of an onsite radiological emergency. The Letters of Agreement will be finalized at a later stage in the planning process.

   Part 10, License Conditions and ITAAC, of the LNP COLA will be revised in a future revision to include a proposed license condition requiring entities listed on Appendix 3 of the Emergency Plan to have an updated Letter of Agreement in place prior to the full participation exercise to be conducted in accordance with Appendix E to 10 CFR Part 50.

Associated LNP COL Application Revisions:

The following changes will be made in a future revision to Part 5, Emergency Plan of the LNP COLA:

1. Add the following section to A.1.a.12. Renumber the remaining sections of A.1.a accordingly.

   A.1.a.12 Local Law Enforcement Agencies

2. Add the following section to A.1.b.17. Renumber the remaining sections of A.1.b accordingly.

   A.1.b.17 Local Law Enforcement Agencies

   Local law enforcement agencies (LLEA) maintain area security and law enforcement within the 10-mile Emergency Planning Zone and at reception centers and shelters located in Citrus, Marion and Lee County. LLEA also manage county-wide law enforcement activities including traffic control, controlling ingress and egress, and establishing traffic control points to ensure safe passage of evacuees to shelter. If directed, the Sheriff's Office will coordinate operations to evacuate the population from the affected area to shelters. Local law enforcement agencies consist of:
   - Citrus County Sheriff's Office Patrol Division
   - Levy County Sheriff's Office
   - Marion County Sheriff's Office

- Inglis Police Department
- Florida Department of Law Enforcement

Additional details for LLEA description of authority, responsibilities, and duties of each organization is presented in their respective State of Florida and/or County emergency plans.

The following Proposed License Condition will be added in a future revision to Part 10, License Conditions and ITAAC of the LNP COLA:

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 Unit 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. (Response previously provided in NPD-NRC-2009-129, in response to NRC RAI 13.03-01.)

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.

Attachments/Enclosures:

None

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-29

Text of NRC RAI:

Onsite emergency response organization assignments

Basis: 10 CFR 50.47(b)(2); 10 CFR 50, Appendix E.IV.A.2.a; Appendix E.IV.A.2.b; Appendix E.IV.A.2.c; Appendix E.IV.A.4; Appendix E.IV.A.5; NUREG-0654/FEMA-REP-1, Evaluation Criterion B.1; Evaluation Criterion B.3; Evaluation Criterion B.5; Evaluation Criterion B.6; Evaluation Criterion B.7; Evaluation Criterion B.8; Evaluation Criterion B.9

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

Section 5, "Plant Emergency Response Staff," of the LNP Emergency Plan states that Table B-1, "Minimum Staffing Requirements for Emergencies," (pages B-11/12) provides a complete summary of minimum staffing requirements for emergencies, including on-shift and Capability for Additions staffing times. Table B-1 was developed using guidance in NUREG-0654/FEMA-REP-1,"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Nuclear Power Plants." The following questions relate to Table B-1:

1. Table B-1 in NUREG-0654 identifies two HP Technicians that will perform the major function of on-shift Protective Actions (In-Plant). **Discuss why there is only one Radiological Control Team member identified to perform On-shift Protective Actions (In-Plant) in Table B-1 of the LNP Emergency Plan. In the discussion, address whether the staffing is applicable to Unit 1 only, or Units 1 and 2.**

2. In response to RAI 13.03-18(D)(4), the applicant stated that the composition of the fire brigade team may vary per shift and will be designated in accordance with established procedures at the beginning of each shift per the FSAR and the LNP Emergency Plan. In addition, the applicant's response stated that personnel assigned to the brigade will not have collateral duties that compete or conflict with fire brigade responsibilities. **Clarify in the LNP Emergency Plan how the composition of the fire brigade team may vary per shift among qualified responders, and that personnel assigned to the brigade will not have collateral duties that compete or conflict with ERO responsibilities.**

3. In response to RAI 13.03-18(D)(3), the applicant stated that the current LNP staffing plans for filling the Mechanical and Electrical/I&C Maintenance positions consist of using a Mechanic or I&C/Electrical Technician on-shift. In addition, the applicant stated that during emergency situations the Mechanical and Electrical Maintenance shift member does not have collateral duties. In Table B-1 of the LNP Emergency Plan, these positions are identified with a note (f) indicating that the Mechanical and Electrical / I&C positions may be provided by shift personnel assigned other functions.

a. **Discuss whether any of the other on-shift emergency responders (e.g., Nonlicensed Operator, Radiological Control Team Personnel, Chemistry Team**

Personnel, etc.) identified in Table B-1 will perform emergency tasks typically performed by Maintenance personnel. If any personnel are identified other than Mechanical and Electrical/I&C personnel consistent with Table B-1, include in the discussion a summary of specific tasks to be performed, and by whom, and the training / qualifications needed to perform these activities.

b. **Include a description of the emergency support functions and responsibilities of the Mechanical, Electrical, and I&C personnel listed in Table B-1 and Section B.5.1, "On-Site Emergency Response Organization," of the LNP Emergency Plan.**

PGN RAI ID #: L-0594

PGN Response to NRC RAI:

1. Table B-1 of the LNP Emergency Plan identifies one Radiological Control Team member to perform In-plant Protective Actions for minimum on-shift staffing. Table B-1 of NUREG-0654 identifies two HP Technicians on-shift, with a double asterisk, to perform In-plant protective actions. The ** is a footnote stating, "May be provided by shift personnel assigned other functions."

   Table B-1 of the LNP Emergency Plan will be revised to be consistent with Table B-1 of NUREG-0654. The LNP Table B-1 will show 2 members of the Radiological Control Team on-shift for Unit 1 with an additional member on-shift for Unit 1 and 2. The LNP "total" minimum shift size for Unit 1 will also be increased by 1 to 15 to account for the Radiological Control Team Member increase. The NUREG-0654 ** footnote allowing the function to be performed by shift personnel assigned other functions will be added to the LNP Table B-1 to maintain consistency with NUREG-0654.

2. The LNP Emergency Plan will be clarified in a future revision to state that the fire brigade is typically composed of Operations personnel, however, if other personnel are used on the fire brigade all members will be trained to the same qualifications as described in the LNP Emergency Plan. A statement will also be added to the LNP Emergency Plan stating Fire Brigade members will not have collateral duties assigned that can compete or conflict with fire brigade response.

3.a. The Levy Emergency Plan Table B-1 identifies an Emergency Position for Mechanical Maintenance and Electrical/I&C Maintenance as shown in the Table below. LNP will use a Mechanic from the Mechanical Maintenance Sub-Unit to fill the position of Mechanical Maintenance. LNP will use an I&C or Electrical Technician from the Electrical Maintenance Sub-Unit to fill the position of Electrical/I&C Maintenance. A summary of specific tasks is not needed as no other on-shift members are identified to staff this emergency position other than Maintenance personnel. The reference to footnote "f" will be deleted for the Mechanical Maintenance and Electrical/I&C Maintenance Emergency Positions in the LNP Table B-1.

Emergency Positions	Assigned Shift Member
Mechanical Maintenance	Mechanic – Mechanical Maintenance
Electrical/I&C Maintenance	I&C or Electrical Technician – Electrical Maintenance

3.b. Section B.5.1 of the LNP Emergency Plan will be updated in a future revision to include a description of the emergency support functions and responsibilities of the Mechanical, Electrical and I&C personnel as related to Table B-1.

Associated LNP COL Application Revisions:

The following changes will be made in a future revision to Part 5, Emergency Plan of the LNP COLA:

1. Revise Table B-1 Functional Area row 6 from:

Functional Area	**Location**	**Major Tasks**	**Emergency Positions**	**Minimum Shift Size (Unit 1)**	**Minimum Shift Size (Units 1 & 2)**
6. In-plant Protective Actions	OSC	Radiation Protection	Radiological Control Team Personnel	1	1

To Read:

Functional Area	**Location**	**Major Tasks**	**Emergency Positions**	**Minimum Shift Size (Unit 1)**	**Minimum Shift Size (Units 1 & 2)**
6. In-plant Protective Actions	OSC	Radiation Protection	Radiological Control Team Personnel	2[(f)]	1

2. Revise Table B-1 last row from:

	Minimum Shift Size (Unit 1)	**Minimum Shift Size (Units 1 & 2)**
LNP TOTAL (Less Security):	**14**	**22**

To Read:

	Minimum Shift Size (Unit 1)	Minimum Shift Size (Units 1 & 2)
LNP TOTAL (Less Security):	**15**	**22**

3. Delete LNP Table B-1 row 5 references to footnote "f" for the Mechanical Maintenance and Electrical/I&C Maintenance emergency positions in the columns for "Minimum Shift Size (Unit 1)" and "Minimum Shift Size (Units 1 & 2)".

4. Revise Section B. 5.1.m from:

m. Fire Brigade: When a fire is announced, the Fire Brigade reports to the Site Incident Commander. If a fire occurs, the Fire Brigade reports to the Fire Staging Area where fire-fighting equipment is located, and then responds to the fire scene. The fire brigade is composed of on-shift personnel trained in fighting fires, as described in Section O. The Fire Brigade reports to the EC – CR or OSC Manager after activation of the OSC.

To Read:

m. Fire Brigade: When a fire is announced, the Fire Brigade reports to the Site Incident Commander. If a fire occurs, the Fire Brigade reports to the Fire Staging Area where fire-fighting equipment is located, and then responds to the fire scene. The Fire Brigade is typically composed of Operations Personnel. Regardless if the Fire Brigade is composed of Operations personnel or other on-shift members each member will be trained in fighting fires, as described in Section O. Fire brigade members will not have collateral emergency response duties that compete or conflict with fire brigade response. The Fire Brigade reports to the EC – CR or OSC Manager after activation of the OSC.

5. Revise Section B.5.1 to insert the following into B.5.1.q and B.5.1.r AND renumber sequential section accordingly:

q. Electrical/I&C Maintenance: The Electrical/I&C Maintenance member is located in the OSC and reports to the OSC Manager through the OSC Maintenance Coordinator; responsible for equipment repair and corrective action to lessen or terminate an emergency situation at or near the source of the problem, to prevent an uncontrolled release of radioactive material, or to reduce the magnitude of a release (e.g., equipment shutdown, repair, and damage control).

r. Mechanical Maintenance: The Mechanical Maintenance member is located in the OSC and reports to the OSC Manager through the OSC Maintenance Coordinator; responsible for equipment repair and corrective action to lessen or terminate an emergency situation at or near the source of the problem, to prevent an uncontrolled release of radioactive material, or to reduce the magnitude of a release (e.g., equipment shutdown, repair, and damage control).

Attachments/Enclosures:

None

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-30

Text of NRC RAI:

Emergency Classification (RAI ID: 1811 / Q6771)

Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(4), Section IV.B of Appendix E to 10 CFR Part 50 SRP Acceptance Criteria:

In response to RAI 13.03-01, the applicant selected Option 2 as the chosen method for establishing the Emergency Classification System at LNP. However, the applicant's response did not contain a general list of licensee actions at each emergency classification as specified in Critical Element 1 of Option 2.

1. **Provide a revised Section D, "Emergency Classification System," to the LNP Emergency Plan that includes a general list of licensee actions at each emergency classification. An acceptable list of general licensee actions for each emergency classification is contained in Appendix 1 to NUREG-0654/FEMA-REP-1.**

2. **Since the emergency plan cannot contain incomplete information, other than those items tracked by EP-ITAAC and/or Licensing Conditions, consider deleting Appendix 4, "Emergency Action Levels," of the LNP Emergency Plan and designate it as "NOT USED."**

3. **Propose a License Condition, or ITAAC, to ensure the final version of the initial emergency action levels will be discussed with, and agreed upon with, state and local governmental authorities at least 180 days prior to fuel load.**

PGN RAI ID #: L-0595

PGN Response to NRC RAI:

1. Section D of the LNP Emergency Plan does not include a general list of licensee actions at each emergency classification level. A general list of licensee actions at each emergency classification level will be added using Appendix 1 to NUREG-0654/FEMA-REP-1 Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, as a basis in a future revision of the LNP COLA Part 5, Emergency Plan.

2. A LNP Unit 1 and 2 license condition is proposed for the NRC approval of the emergency action levels (EAL). See response to NRC RAI 13.03-28 above. In addition, a LNP Unit 1 and 2 license condition is proposed to ensure initial emergency action levels are discussed and agreed upon with State and local agencies responsible for emergency planning. See response to NRC RAI 13.03-30 Item 3 below. The proposed license condition for the EAL scheme in the response to NRC RAI 13.03-28 states

Progress Energy – Florida will submit an EAL Scheme for NRC approval consistent with NEI 07-01 Revision 0 with no deviations.

The EALs listed in Appendix 4 are consistent with NEI 07-01 Revision 0. However since the EALs are not approved specifically for LNP, Appendix 4 will be designated as "Not Used". The LNP Emergency Plan will be revised to state that the EAL scheme information and details will be contained in an Emergency Plan Implementing Procedure.

3. Consistent with the requirements of Section IV.B of Appendix E to 10 CFR Part 50, initial emergency action levels will be discussed and agreed upon with State and local agencies responsible for emergency planning.

   PGN will include a Proposed License Condition in a future revision to Part 10 of the LNP Units 1 and 2 Combined License Application.

Associated LNP COL Application Revisions:

CHANGE 1: COLA Part 5, Emergency Plan, Sections D.1 through D.2 will be revised from:

1.1 NOTIFICATION OF UNUSUAL EVENT (UNUSUAL EVENT)

Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

Emergency Action Levels (EALs) for this classification are selected based upon the potential to degenerate to a more severe situation.

The purpose of the UNUSUAL EVENT classification is to bring the operating staff to a state of readiness in the event of escalation to a more severe action level classification, and to provide for systematic handling of event information and its related decision making.

1.2 ALERT

Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA PAG exposure levels.

As in the case of the UNUSUAL EVENT, the ALERT classification includes emergency situations which are not expected to threaten the public, but for which it is deemed prudent to alert the off-site emergency organizations and mobilize a portion thereof.

The purpose of the ALERT classification is to assure that emergency personnel are readily available to respond if situations become more serious, or to perform confirmatory radiation monitoring as required, and to provide off-site authorities with current status information.

Also, since those events initiating an ALERT classification are those with the potential for limited release of radioactive material to the environment, broader assessment actions shall be initiated than those utilized for an UNUSUAL EVENT.

1.3 SITE AREA EMERGENCY

Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; 1) toward site personnel or equipment that could lead to the likely failure of or; 2) that prevent effective access to, equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA PAG exposure levels beyond the site boundary.

This emergency classification, unlike the two previously described classifications, is very likely to involve some radiation exposure to the public and the potential for escalation to the GENERAL EMERGENCY classification.

The purpose of the SITE AREA EMERGENCY classification is to: (a) assure that response centers are staffed; (b) assure that Radiation Monitoring Teams are dispatched; (c) assure that personnel required for evacuation of near-site areas are at duty stations if the situation becomes more serious; and (d) provide current information for consultation with off-site authorities and the public. Its purpose is not to initiate protective actions.

1.4 GENERAL EMERGENCY

Events are in progress or have occurred which involve actual or IMMINENT substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA PAG exposure levels off-site for more than the immediate site area.

It also includes other accidents that have large radioactive release potential, such as fuel handling and waste gas system accidents. This is the most severe classification of emergency.

The purpose of the GENERAL EMERGENCY classification is to (a) initiate predetermined protective actions for the public; (b) provide continuous assessment of information from on-site and off-site measurements; (c) initiate additional measures indicated by event releases or potential releases; and (d) provide current information and consultation with off-site authorities and the public. Since the lower limits of the EPA PAGs are likely to be exceeded upon the declaration of a GENERAL EMERGENCY, the Emergency Coordinator may recommend some protective actions.

2. EMERGENCY ACTION LEVELS (EALS)

NEI 07-01, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors, Rev. 0. (Reference K) provides the basis for the LNP EALs. Appendix 4, Emergency Action Levels, provides the parameter values and equipment status that are used in classifying emergencies at LNP.

To Read:

D.1.1 UNUSUAL EVENT

Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring off-site response or monitoring

are expected unless further degradation of safety systems occurs. Unusual Event is equivalent to the NRC designated class "Notification of Unusual Events."

Levy Plant actions undertaken at the Notification of Unusual Event include promptly informing State and local authorities of the event, augmenting on-shift resources as needed, assessment and response, and escalation to a more severe class, if appropriate. If the emergency class is not escalated to a more severe class, then State and local authorities will be notified of event termination in accordance with implementing procedures.

D.1.2 ALERT

Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

Levy Plant actions undertaken at the Alert emergency class include those described for the Notification of Unusual Event and activation of the TSC and OSC. In addition, EOF, JIC and other key emergency response personnel are alerted, on-site monitoring teams are dispatched, periodic plant status updates and meteorological assessments are provided to offsite authorities, as are dose estimates, if any event-related releases are occurring.

D.1.3 SITE AREA EMERGENCY

Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or hostile action that results in intentional damage or malicious acts; 1) toward site personnel or equipment that could lead to the likely failure of or; 2) that prevent effective access to, equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the Site boundary.

Levy Plant actions undertaken at the Site Area Emergency class include those described for the Alert emergency class and activation of the EOF and JIC. In addition, an individual is dedicated to provide plant status updates to offsite authorities and periodic media briefings (jointly with offsite authorities when practicable), senior technical and management staff are made available for consultation with NRC and the State on a periodic basis, and release and dose projections based on available plant condition information and foreseeable contingencies are provided.

D.1.4 GENERAL EMERGENCY

Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or hostile action that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels off-site for more than the immediate site area.

Levy Plant actions undertaken at the General Emergency class are identical to those described for the Site Area Emergency class except there is no more severe emergency class.

LNP Emergency Plan Implementing Procedure (EPIP), "Emergency Classification," provides recognition categories, the associated initiating condition matrices, and the emergency action levels.

2. EMERGENCY ACTION LEVELS (EALS)

LNP Emergency Plan Implementing Procedure, "Emergency Classification," provides the parameter values and equipment status that are indicative of each emergency class. Changes to LNP EPIP, "Emergency Classification" are developed and approved consistent with the requirements of 10 CFR 50.54(q).

CHANGE 2: Revise the following sections based on the deletion of Appendix 4 in its entirety:

A. Appendices Table of Contents – Revise Appendix 4 title from "Emergency Action Levels" to state "[Not Used]"

B. List of Tables – Delete A4-1 through A4-5

C. Appendix 4 – Revise to state "[Not Used]"

D. Appendix 8 Criteria D.3 and D.4: Delete "Appendix 4, Emergency Action Levels"

CHANGE 3: COLA Part 10, Proposed License Condition 11 (see response to RAI 13.03-28) will be revised to include:

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.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-31

Text of NRC RAI:

Emergency facilities and equipment

Basis: 10 CFR 50.47(b)(8); 10 CFR 50, Appendix E.IV.E.3; Appendix E.IV.E.4; Appendix E.IV.E.8; Appendix E.VI Emergency Response Data System; Appendix E.VI. Maintaining Emergency Response Data System; Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements," NUREG-0654/FEMA-REP-1, Evaluation Criterion H.2; Evaluation Criterion H.4; Evaluation Criterion H.5; Evaluation Criterion H.6; Evaluation Criterion H.8; Evaluation Criterion H.9

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1, 2, 4, 5, 12, 25, and 26

In response to RAI 13.03-21(A), the applicant stated that the LNP EOF will be a shared facility with Crystal River 3 (CR3). The applicant described the EOF as consisting of 21,000 square feet of available work space, with available equipment to facilitate unimpeded communication with offsite agencies, onsite emergency response facilities and the Emergency News Center, and the capability to acquire, display, and evaluate radiological, meteorological, and plant system data pertinent to offsite protective measures for LNP and CR3 without decreasing facility effectiveness. In addition, in response to RAI 14.03.10-1(J), the applicant stated that the LNP EOF is located outside the 10-mile EPZ but within 20 miles of the LNP and CR3 TSCs. **Propose a License Condition to demonstrate the integrated capability and functionality of the existing EOF with the LNP and Crystal River TSCs, NRC site-teams, NRC Incident Response Centers, and other Federal, State, and local coordination centers as appropriate, prior to using the EOF for LNP emergency response.**

PGN RAI ID #: L-0596

PGN Response to NRC RAI:

The LNP EOF will be a shared facility with the Crystal River 3 Nuclear Power Plant owned and operated by Progress Energy – Florida. A license condition will be proposed to demonstrate the dual use facility can operate in the event of a simultaneous activation by both the LNP and Crystal River 3 Emergency Response Organizations. The demonstration will be performed under simulated conditions prior to using the EOF for LNP emergency response.

Associated LNP COL Application Revisions:

COLA Part 10, Proposed License Condition 11 (see response to RAI 13.03-28) will be revised to include:

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.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-32

Text of NRC RAI:

ITAAC

Basis: 10 CFR 52.80(a)

SRP Acceptance Criteria: Requirement E; Acceptance Criterion 23

1. In response to RAI 14.03.10-1(I), the applicant stated that EP ITAAC 8.3 to 8.6 for Planning Standard 8.0, "Emergency Facilities and Equipment," in RG 1.206 were not included in the Levy EP ITAAC Table 3.8-1 since their review revealed that corresponding ITAAC had already been addressed. **In order for the staff to complete its review of the Levy EP ITAAC, propose EP ITAAC consistent with RG 1.206 (8.3 to 8.6), including specific capabilities, or provide additional justification as to why they are not required.**

2. In response to RAI 14.03.10-1(C)(1), the applicant added a note to acceptance criterion 8.1.2 in LNP EP-ITAAC Table 3.8-1 which states, "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." **Revise acceptance criterion 8.1.2 to clarify that emergency response personnel perform assigned responsibilities consistent with the LNP Emergency Plan and Emergency Plan Implementing Procedures, or justify why it is not required.**

3. In response to RAI 14.03.10-1(C)(3), the applicant provided EP-ITAAC acceptance criterion 8.1.3 in LNP ITAAC Table 3.8-1, under Planning Standard 8.0, "Exercises and Drills," consistent with RG 1.206, Table C.II.1, acceptance criterion 14.1.3. **Revise acceptance criteria 8.1.3 in LNP EP ITAAC Table 3.8-1 to include the wording "...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"** or similar wording consistent with RG 1.206, acceptance criterion 14.1.3.

4. Inspection, Test, and Analyses 5.1.1 for Planning Standard 5.0, "Emergency Facilities and Equipment," in the Levy EP ITAAC Table 3.8-1 states that 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 with exceptions. **Discuss the exceptions noted in this section.**

5. In response to RAI 14.03.10-1(G), the applicant stated that advanced communications will be used to satisfy the two-minute travel time requirement between the TSC and Control Room. In addition, the applicant referenced various EP-ITAAC in Table 3.8-1 of the Levy COL application that will ensure advanced communication capabilities exist. **Describe the "advanced communications" referenced in response to this RAI and explain why the**

advanced communications are sufficient to replace the two minute travel time between the TSCs and Control Rooms.

6. The ITAAC associated with onsite exercises (see RG 1.206 generic ITAAC Table C.II.1-B1) is distinguishable from the other (non-exercise) ITAAC. That is, the non-exercise ITAAC provide a means to ensure that the various planning features exist; including allowing the staff to evaluate the completeness of the emergency plan as part of its reasonable assurance determination under 10 CFR 50.47(a) – before the combined license (COL) is issued. The ITAAC serve as placeholders for various aspects of emergency planning, and identify what an inspector will look at in the future to verify that the specific item exists. In contrast, the exercise ITAAC provide a means by which the various planning features can be demonstrated during the initial full-participation exercise – after the COL is issued. **Propose EP-ITAAC consistent with RG 1.206, including specific acceptance criteria that address Planning Standards 1.0, "Assignment of Responsibility – Organization Control," 2.0,"Onsite Emergency Organization," 11.0, "Radiological Exposure Control," and 12.0, "Medical and Public Health Support," 15.0, "Radiological Emergency Response Training," and 16.0, "Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans," or provide additional justification as to why they are not required.**

PGN RAI ID #: L-0597

PGN Response to NRC RAI:

1. EP ITAAC including specific capabilities consistent with RG 1.206 EP ITAAC 8.3 to 8.6 will be added to the LNP COLA Part 10, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria in a future revision. The comparable ITAAC will be added to Table 3.8-1 as EP Program Elements 7.3 to 7.6.
2. EP ITAAC acceptance criterion 8.1.2 will be renumbered to EP ITAAC acceptance criterion 12.1.2 in a future revision of LNP COLA Part 10. In addition the associated Note for 12.1.2 will be revised to state emergency response personnel will perform assigned responsibilities consistent with the LNP Emergency Plan and Emergency Plan Implementing Procedures.
3. EP ITAAC acceptance criterion 8.1.3 will be renumbered to EP ITAAC acceptance criterion 12.1.3 in a future revision of LNP COLA Part 10. In addition 12.1.3 will be revised to state, if offsite exercise deficiencies do exist and have not been corrected then the licensee will propose a license condition that requires offsite deficiencies to be addressed prior to operation above 5% of rated power.
4. EP ITAAC acceptance criterion 5.1.1 will be renumbered to EP ITAAC acceptance criterion 7.1.1 in a future revision of LNP COLA Part 10. In addition, the EP ITAAC wording will be revised to state the facilities (TSC and OSC) will meet the criteria of NUREG-0696. The wording, "with exceptions" will be deleted from the ITAAC.
5. EP ITAAC section 5.1 will be renumbered to EP ITAAC section 7.1 in a future revision. New acceptance criteria 7.1.2 will be added to Part 10 of the LNP COLA to be consistent with acceptance criteria 8.1.2 of RG 1.206. Acceptance criteria 7.1.2 will state, "The TSC is close to the control room, and the walking distance from the TSC to the control room does not exceed two minutes". Advanced communication referred to in the original response to RAI 14.03.10-1(G) is not needed in lieu of the two minute travel time from the TSC to control room for LNP.

6. EP ITAAC will be added to the LNP COLA Part 10 in a future revision to correspond to RG 1.206 acceptance criteria 1.0, 2.0, 11.0, 12.0, 15.0 and 16.0. The following table shows the RG 1.206 acceptance criteria and the corresponding LNP EP ITAAC acceptance criteria location:

RG 1.206 Acceptance Criteria	LNP EP ITAAC Section
1.0 - Assignment of Responsibility – Organizational Control	1.0
2.0 – Onsite Emergency Organization	2.0
11.0 – Radiological Exposure Control	10.0
12.0 – Medical and Public Health Support	11.0
15.0 – Radiological Emergency Response Training	13.0
16.0 – Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans	14.0

Associated LNP COL Application Revisions:

Replace LNP COLA Part 10, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria with Table 3.8-1 provided in Attachment 13.03-32

Attachments/Enclosures:

Attachment 13.03-32: Levy Nuclear Plant Units 1 and 2 COL Application Part 10, License Conditions and ITAAC Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria [29 pages]

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-33

Text of NRC RAI:

ETE General Assumptions

Acceptance Criteria: Requirements A and H; Acceptance Criterion 5
Regulatory Basis: 10 CFR 100.21(g)

In response to RAI 13.03-03 (G) (ETE-2G), the applicant referenced the response to RAI 13.03-11(AC), which provided a detailed discussion of the road survey and a large-scale version of Figure 1-2 with node numbers to be cross referenced with Appendix K. **Clarify in the ETE Analysis whether any physical characteristics unique to the proposed LNP site exist, which could pose a significant impediment to the development of the LNP Emergency Plan.**

PGN RAI ID #: L-0598

PGN Response to NRC RAI:

KLD Associates initially performed a detailed ETE Analysis for the LNP in April 2008. In August 2009 the LNP ETE Report was updated to address NRC RAIs. The August 2009 update was submitted with the revision 1 update to the LNP COLA. Section 13 of the ETE Report provides recommendations to improve evacuation timeliness and efficiency for the LNP emergency planning zone identified during the analysis. The April 2008 and August 2009 ETE Reports were discussed by KLD, Progress Energy, Emergency Management personnel from the State of Florida and the counties of Citrus, Levy and Marion. There were no physical characteristics unique to the proposed LNP site that could pose a significant impediment to protecting the public under normal conditions at the time the ETE Report was conducted. Based on the discussions between offsite agencies, Progress Energy and KLD during the ETE Report meetings, no clarification to the ETE Analysis is planned at this time in regard to significant impediments.

Associated LNP COL Application Revisions:

No COLA revisions have been identified associated with this response.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-34

Text of NRC RAI:

ETE Demand Estimation, Permanent Residents

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section II.A.

In response to RAI 13.03(B)(2), the applicant provided additional information related to the combined telephone survey. The staff finds the response to this RAI acceptable. However, the information needs to be included in the LNP ETE report. **In the next revision to the ETE report, include the Table and text provided in the RAI response.**

PGN RAI ID #: L-0599

PGN Response to NRC RAI:

RAI 13.03-5(B)(2) Table 2 – Levy Nuclear Plant EPZ Population by Zip Code was not placed in the original LNP ETE Report conducted by KLD due to the EPZ being undefined at the time. Therefore, the ETE Report included a combined telephone survey conducted for the union of the Levy and Crystal River 10-mile radii versus a table strictly for the unknown Levy EPZ population. The Levy EPZ is now defined and data presented in RAI 13.03-5(B)(2) Table 2 will be incorporated into the next revision of the LNP ETE Report as appropriate based on ETE rulemaking and guidance in effect at the time of the revision. It should be noted the current LNP ETE Report dated August 2009 remains valid as discussed in previous response to RAI 13.03-5(B)(2).

Associated LNP COL Application Revisions:

The following change will be made to the LNP ETE Report in a future revision:

Add a Table similar to RAI 13.03-5(B)(2) Table 2 – Levy Nuclear Plant EPZ Population by Zip Code as appropriate based on ETE rulemaking and guidance in effect at the time of the revision.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-074

NRC Letter Date: November 19, 2009

NRC Review of Final Safety Analysis Report

NRC RAI #: 13.03-35

Text of NRC RAI:

Plant systems and instrumentation

Basis: 10 CFR 50.47(b)(9); NUREG-0654/FEMA-REP-1, Evaluation Criterion I.1; Evaluation Criterion I.2; Evaluation Criterion I.3; Evaluation Criterion I.4; Evaluation Criterion I.6; Evaluation Criterion I.10; Supplement 1 to NUREG-0737, Section 6.1.b.3. - Control Room Post-accident sampling capability

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1, 4, 5, 25, and 27

In response to RAI 13.03-22, the applicant stated that offsite dose projections will be performed using NUREG-1887, "RASCAL 3.0.5: Description of Models and Methods," once it is updated for sites that build an AP1000 reactor, or other similar software approved by the NRC. The applicant stated that they intend to replace the reference to an older version of RASCAL in the LNP Emergency plan with RASCAL 3.0.5.

Although RASCAL may be suitable for some sites, the applicant needs to demonstrate RASCAL will provide results that are representative of the site-specific source characteristics (e.g., building complex influence), climatological (e.g., seasonal, diurnal, and terrain-induced flows) effects on plume trajectories and terrain conditions at the specific site where it is proposed to be used.

1. **Identify the site-specific local effects on the plume and the site-specific terrain conditions that could affect dose projections for the Levy site, and identify how the specific capabilities in RASCAL adequately address these effects. If the response cites the RASCAL technical manual, provide a specific citation to the section that supports your conclusions.**

2. **The NRC staff needs to conclude that an acceptable methodology exists for dose assessment. If RASCAL 3.0.5 is not updated for AP1000 plants, discuss the specific platform or methodology to be used for dose assessment.**

3. **Revise EP-ITAAC Table 3.8-1 to reflect the use of the specific software platform to be used for dose assessment.**

PGN RAI ID #: L-0600

PGN Response to NRC RAI:

1– 3 In order to provide for protection of LNP personnel and the public, the radiological impact in terms of actual or projected doses to individuals and population groups must be determined. Emergency workers and monitoring stations are provided with dose measurement instrumentation, but for some groups and, in particular the

affected population in the plume exposure EPZ, dose calculations or projections may be required. An Emergency Plan Implementing Procedure (EPIP) will be used to assess the dose to personnel downwind of an accidental radioactive release. The EPIP will provide Operations Staff with a rapid method of determining the magnitude of a radioactive release from LNP during an accident condition. The EPIP will be performed manually. The manual method contains a series of tables, which are used along with meteorological and radiological data displayed in the Control Room to quickly generate off-site dose information. It is intended that this procedure be used in the initial phases of the emergency to determine appropriate protective actions to be recommended to off-site authorities.

The EPIP will also provide Dose Assessment personnel guidance to determine the magnitude of the radioactive release and cumulative dose by distance and sector to aid in formulating protective action recommendations. The EPIP will prompt the user to provide meteorological data, source term data, and accident type for use in the dispersion model. The ability to project dose information may also be accomplished through the use of a forecast mode to allow the user to predict future impact if conditions remain relatively stable.

RASCAL will not be used to perform offsite dose assessment at this time and all reference will be removed from the LNP COLA Part 5 Emergency Plan at this time. EP ITAAC Table 3.8-1 acceptance criteria 8.1.1.E.5.a and 8.1.1.E.7.a (renumbered to acceptance criteria 12.1.1.E.5.a and 12.1.1.E.7.a respectively, in the attached EP ITAAC Table 3.8-1 per RAI response 13.03-32 above) will be revised in the future to remove the reference to dose projection software and refer solely to the manual calculation method per the emergency plan implementing procedure.

Associated LNP COL Application Revisions:

The following changes will be made in a future revision to Part 5, Emergency Plan of the LNP COLA:

1. Revise Section 4.2, Off-site Dose Assessment from:

Dose projections will be performed, using emergency plan implementing procedures, to assess the dose to personnel downwind of an accidental radioactive release and the possible need for protective action. The technical basis for this program is located in NUREG-1887: RASCAL 3.0.5: Description of Models and Methods.

These procedures provide the Operations staff with a rapid method of determining the magnitude of a radioactive release from LNP during an accident condition. Certain procedures are performed manually. The manual method contains a series of tables, which are used along with meteorological and radiological data displayed in the CR to quickly generate off-site dose information. It is intended that these procedure be used in the initial phases of the emergency to determine appropriate protective actions to be recommended to off-site authorities.

Other procedures provide Dose Assessment personnel guidance to utilize computers/ software to determine the magnitude of the radioactive release and cumulative dose by distance and sector to aid in formulating protective action recommendations. The program prompts the user to provide meteorological data, source term data, and accident type for

use in the dispersion model. The ability to project dose information may also be accomplished through the use of a forecast mode within the model. This allows the user to predict future impact if conditions remain relatively stable.

The capability of performing dose assessment at both the TSCs and EOF provides the redundancy necessary to ensure timely estimation of off-site dose.

Data used for producing dose assessments, as well as the data generated by these methods, will be made available to both the NRC and the state for independent analysis.

To Read:

In order to provide for protection of LNP personnel and the public, the radiological impact in terms of actual or projected doses to individuals and population groups must be determined. Emergency workers and monitoring stations are provided with dose measurement instrumentation, but for some groups and, in particular the affected population in the plume exposure EPZ, dose calculations or projections may be required. An Emergency Plan Implementing Procedure (EPIP) will be used to assess the dose to personnel downwind of an accidental radioactive release. The EPIP will provide Operations Staff with a rapid method of determining the magnitude of a radioactive release from LNP during an accident condition. The EPIP will be performed manually. The manual method contains a series of tables, which are used along with meteorological and radiological data displayed in the Control Room to quickly generate off-site dose information. It is intended that this procedure be used in the initial phases of the emergency to determine appropriate protective actions to be recommended to off-site authorities.

The EPIP will also provide Dose Assessment personnel guidance to determine the magnitude of the radioactive release and cumulative dose by distance and sector to aid in formulating protective action recommendations. The EPIP will prompt the user to provide meteorological data, source term data, and accident type for use in the dispersion model. The ability to project dose information may also be accomplished through the use of a forecast mode to allow the user to predict future impact if conditions remain relatively stable.

The capability of performing dose assessment at both the TSCs and EOF provides the redundancy necessary to ensure timely estimation of off-site dose.

Data used for producing dose assessments, as well as the data generated, will be made available to both the NRC and the state for independent analysis.

2. Delete Appendix 2, References, reference CC and renumber remaining references accordingly. Reference CC currently refers to NUREG-1887, RASCAL 3.0.5: Description of Models and Methods, August 2007 and is not required in support of the LNP Emergency Plan.

The following changes will be made in a future revision to Part 10, License Conditions and ITAAC of the LNP COLA:

1. Revise EP ITAAC in LNP COLA Part 10, Table 3.8-1 acceptance criteria 8.1.1.E.5.a from:

The Dose Projection Team Leader and Dose Projection Team perform dose projections using dose projection software, in accordance with emergency plan implementing procedures, and report them to the Radiation Controls Manager.

To Read:

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.

NOTE: 8.1.1.E.5.a becomes 12.1.1.E.5.a based on response to RAI 13.03-32 discussed above.

2. Revise EP ITAAC in LNP COLA Part 10, Table 3.8-1 acceptance criteria 8.1.1.E.7.a from:

   Total effective dose equivalent (TEDE) and committed dose equivalent (CDE) to the thyroid dose projections from the dose assessment computer code are compared to the PAGs.

   To Read:

   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.

   NOTE: 8.1.1.E.7.a becomes 12.1.1.E.7.a based on response to RAI 13.03-32 discussed above.

Attachments/Enclosures:

None.

Attachment to NRC RAI #13.03-32 (PGN RAI ID #L-0597):

Levy Nuclear Plant Units 1 and 2 COL Application Part 10, License Conditions and ITAAC Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria

[29 pages following this cover page]

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 Operating Units 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** 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/FEMAREP-1, Rev. 1. [H.5]	**7.3 - 7.6** A test will be performed of the capabilities	**7.3** The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-654/FEMAREP-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]		**7.4** The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. EALs using offsite dose 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. 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. [K.5.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. Standard Criteria: a. The appropriate EAL condition associated with a parameter or symptom was recognized. b. The correct emergency classification is declared within15 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 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. Standard Criteria: 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. Standard Criteria: 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. Environmental monitoring team activation must be within 75 minutes of event declaration. b. Team deployment occurs rapidly (within approximately 10 minutes) of receipt of instructions to deploy. 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 > 50 Rem CDE. c. Follow-up care for individuals exposed to >25 Rem CDE was identified, as applicable. 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. Standard Criteria: 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. Standard Criteria: 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 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.	**14.1** 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.