



Serial: NPD-NRC-2011-021
March 15, 2011

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. 100 RELATED TO
EMERGENCY PLANNING**

Reference: Letter from Denise McGovern (NRC) to John Elnitsky (PEF), dated February 16, 2011, "Request for Additional Information Letter No. 100 Related to the 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 March 15, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Elnitsky', written over a printed name and title.

John Elnitsky
Vice President
New Generation Programs & Projects

Enclosure/Attachment

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

Levy Nuclear Plant Units 1 and 2
Response to NRC Request for Additional Information Letter No. 100 Related to
SRP Section 13.3 for the Combined License Application, dated February 16, 2011

<u>NRC RAI #</u>	<u>Progress Energy RAI #</u>	<u>Progress Energy Response</u>
13.03-45	L-0882	Response enclosed – see following pages
13.03-46	L-0883	Response enclosed – see following pages
13.03-47	L-0884	Response enclosed – see following pages
13.03-48	L-0885	Response enclosed – see following pages
13.03-49	L-0888	Response enclosed – see following pages
13.03-50	L-0889	Response enclosed – see following pages
13.03-51	L-0890	Response enclosed – see following pages
13.03-52	L-0891	Response enclosed – see following pages
13.03-53	L-0892	Response enclosed – see following pages
13.03-54	L-0893	Response enclosed – see following pages
13.03-55	L-0894	Response enclosed – see following pages
13.03-56	L-0895	Response enclosed – see following pages
13.03-57	L-0896	Response enclosed – see following pages
13.03-58	L-0897	Response enclosed – see following pages
NA	L-0913	Response enclosed – see following pages

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-45

Text of NRC RAI:

Subject: On-shift and Augmentation Emergency Response Staff

Basis: Supplemental to RAI 13.03-18(D)(1) and (6) and 13.03-29(1), NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion B.5, O.4.c, Appendix E, Section IV.A.4, and Appendix E, Section IV.F.1(b)(iii)

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

1. In response to RAI 13.03-18(D)(6) regarding the basis for ERO staffing levels and consideration for Instrument and Controls (I&C) Maintenance, and Information Technology (IT) personnel, the applicant stated, in part, that its basis for the staffing composition identified in Table B-1 of the LNP Emergency Plan is Table B-1 of NUREG-0654/FEMA-REP-1, Revision 1. In addition, the applicant stated that Table B-1 includes positions needed for most types of emergencies and is not an all inclusive list of emergency response organization members that will respond to an event. **Discuss whether Digital I&C Maintenance personnel were considered as part of its staffing basis for Table B-1, and whether Table B-1 meets the site-specific needs of LNP to effectively respond, on shift and for an extended period of time, to a declared emergency event, for a new generation passive design reactor, the AP1000.**
2. In response to RAI 13.03-18(D)(1) regarding augmented staffing times, the applicant stated that notification of the ERO typically occurs within the first 15 minutes of an event. Once notified, ERO members are expected to respond to their respective ERFs within 30 or 60 minutes and be ready to assume responsibility for their ERO function within approximately 15 minutes. Therefore, the ranges of 30-45 minutes and 60-75 minutes shown on Table B-1 include the initial ERO notification time (not to exceed 15 minutes) and turnover time to assume the ERO role and responsibility for their respective Table B-1 function. The staff find's the applicant's response to RAI 13.03(D)(1) acceptable, however, the applicant's responses to RAIs 13.03-21(B) and RAI 13.03-44(2) appear to conflict with the above discussion increasing the augmentation times an additional 15 minutes, totaling 90 minutes. **Discuss why the LNP Emergency Plan and responses to RAI 13.03-21B and 13.03-44(2) appear inconsistent with the discussion provided in RAI 13.03-18(D)(1), or revise the LNP Emergency Plan to incorporate the response to RAI 13.03-18(D)(1) (excluding the Crystal River operating experience), and ensure that Section H.4., "Activation and Staffing of Emergency Response Facilities," of the LNP Emergency Plan and the EP-ITAAC in LNP Table 3.8-1 align with this information.**
3. In response to RAI 13.03-29(1) regarding Radiological Control Team members identified to perform on-shift Protective Actions (In-Plant) in LNP Table B-1 of the Emergency

Plan, the staff finds the applicant's response to RAI 13.03-29(1) acceptable, with exception. The proposed revision to Table B-1 in the LNP Emergency Plan is not consistent with the applicant's response to this RAI, which incorrectly reflects a minimum shift staffing size (1 versus 3) of Radiological Control Team members on-shift, for Units 1 and 2, specific to the major task of On-shift Protective Actions (In-Plant). In addition, the applicant added footnote (f) to the position indicating that task may be performed by shift personnel assigned other functions. **Discuss why Table B-1 does not reflect the additional Radiological Control Team members described in response to RAI 13.03-29(1), or revise Table B-1 to include this information. Regarding footnote (f), discuss who will assume this function in the event of an emergency, including any collateral duties or competing priorities. Revise the emergency plan accordingly.**

4. Section 4.1, "On-site Dose Assessment," of the LNP Emergency Plan states that the Radiation Monitoring Team has sole responsibility for plume monitoring until such time as the State monitoring teams arrive and assume this responsibility for areas beyond the site boundary. LNP Table B-1 identifies Environmental Monitoring Team Personnel as performing the major task of off-site surveys from the EOF. **Discuss in the LNP Emergency Plan whether the Radiation Monitoring Team personnel described in Section 4.1 are the same as the Environmental Monitoring Team personnel identified in LNP Table B-1. If not, describe in the LNP Emergency Plan the team makeup, general responsibilities, and training provided for the Environmental Monitoring Team.**

PGN RAI ID #: L-0882

PGN Response to NRC RAI:

1. The Levy Emergency Plan Table B-1, Minimum Staffing Requirements for Emergencies staffing is based on NUREG-0654 Table B-1, Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies. Section 18.6-1 revision 17 of the AP1000 Design Control Document (DCD) states that staffing levels will be addressed for various plant personnel including instrumentation and control (I&C) technicians. Section 18.6-1 is not specific to emergency conditions and applies to normal conditions as well. The intent is not to require each of the staffing positions to be onsite at all times.

Table B-1 for LNP delineates positions needed to perform emergency functions and in turn be onsite to respond to emergency conditions. Electrical or I&C personnel are listed on LNP Table B-1 to perform repair and corrective action tasks associated with an emergency. Digital components can be affected during an emergency and as such Electrical/I&C personnel will be trained in repair and corrective action tasks associated with digital components. One individual capable of performing the function must be on shift at all times and three additional electrical/I&C personnel will augment the shift staffing upon declaration of an Alert or higher.

The number of electrical/I&C personnel in LNP Table B-1 mirrors the numbers specified in Table B-1 of NUREG-0654 and has been deemed adequate by the NRC and industry to respond to design basis accidents. It is reasonable to conclude the numbers are also sufficient for LNP minimum staffing requirements during an emergency. No additional personnel specializing in digital I&C maintenance are required in Table B-1 at this time.

2. RAI 13.03-45 acknowledges the acceptance of RAI 13.03(D)(1) as an acceptable response regarding augmented staffing times associated with LNP Emergency Plan Table B-1. RAI 13.03-45 also expresses concern that the response to RAI 13.03-21B and 13.03-44(2) appear inconsistent with RAI 13.03(D)(1). It is not the intent for RAI 13.03-21(B) and 13.03-44(2) to be inconsistent with RAI 13.03(D)(1). After benchmarking other AP1000 COLA Part 5, Emergency Plan, submittals and the Crystal River Unit 3 operating Emergency Plan augmented staff capability for additions tables, the use of a range versus concrete time is believed to be a primary contributor to the uncertainty related to the previous RAI responses. The LNP Emergency Plan will replace the 30-45 and 60-75 minute ranges listed in Table B-1 with 30 and 60 minute times, respectively. Section H.4, Activation and Staffing of Emergency Response Facilities, will be revised in a future LNP COLA revision to correspond to the Table B-1 changes.

The change from ranges on Table B-1 to a finite number of minutes is to improve clarity and does not alter any specific actions for the LNP Emergency Response Organization. A 15 minute briefing and turnover time will continue to be used in facility activation times as discussed in Section H.4.

In addition, the EP-ITAAC in LNP Table 3.8-1 will be revised to align with the changes to Table B-1 and Section H.4. (Refer to the response to RAI 13.03-58 below for specific changes to EP-ITAAC in LNP Table 3.8-1.)

3. Table B-1 will be adjusted in a future revision to the LNP COLA Part 5 Emergency Plan to show 3 Radiological Control Team Personnel as a minimum shift size for Units 1 & 2 for in-plant protective actions. The revision from 1 to 3 Radiological Control Team Personnel will be consistent with the response provided for RAI 13.03-29(1). The "total" minimum shift size for Units 1 & 2 will also be increased by 2 to 24 to account for the Radiological Control Team Personnel increase.

The Levy Emergency Plan Table B-1 includes a footnote for the Radiological Control Team Personnel performing in-plant protective actions. The footnote states the function may be provided by shift personnel assigned other functions. The LNP footnote is consistent with the same footnote for personnel performing in-plant protective actions per NUREG-0654, Table B-1, Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies.

During emergency situations the LNP Radiological Control Team Personnel performing in-plant protective actions do not have collateral duties. Personnel on-shift required to perform in-plant protective actions during an emergency at LNP will be trained and qualified to perform the major radiation protection task per Table B-1. Collateral emergency response duties will not exist regardless of the title of the individual performing the Table B-1 major task.

In conclusion, Radiological Control Team Personnel assigned to perform in-plant protective actions per LNP Emergency Plan Table B-1 are not assigned collateral duties or competing priorities during an emergency.

4. Section I.4.1, On-Site Dose Assessment refers to a "Radiation Monitoring Team" for both in-plant evaluations and the determination of radioactive levels at the site boundary and

beyond. The radiation monitoring team evaluating onsite conditions is not the same as the team evaluating site boundary and beyond conditions.

The reference to "Radiation Monitoring Team" for in-plant evaluations and surveys will be changed to "Radiological Control Team" to be consistent with emergency positions described in Table B-1, Minimum Staffing Requirements for Emergencies.

The reference to "Radiation Monitoring Team" for site boundary and beyond evaluations will be changed to "Radiological Monitoring Team" to be consistent with emergency positions described in Table B-1, Minimum Staffing Requirements for Emergencies. (See RAI 13.03-47 response below regarding a Table B-1 nomenclature change from "Environmental Monitoring Team Personnel" to "Radiological Monitoring Team Personnel".)

Section I.4.1 does not introduce any new monitoring teams in addition to teams specified in Table B-1. However, Section B.5.1, On-site Emergency Response Organization will be revised in a future revision to the LNP COLA to add a subsection for Radiological Monitoring Teams. The teams report to the Radiation Control Coordinator. Teams assemble at the site and are subsequently dispatched in vehicles to the surrounding area. They are responsible for offsite plume tracking, monitoring and other sampling activities.

Section O.4, Emergency Response Training and Qualification will also be revised in a future LNP COLA to add subsection O.4.I to specify training requirements for the Radiological Monitoring Team. Training will cover the following topics:

- Equipment and equipment checks
- Plume tracking and map reading
- Field measurement of airborne radioactivity
- Radiation levels and contamination in the EPZ
- Environmental sample collection
- Record keeping
- Communications, and
- Procedures

Section K.6.a, Contamination Control Measures, also refers to a "Radiation Monitoring Team" and will be revised in a future LNP COLA to replace "Radiation Monitoring Team" with "Radiological Control Team". The nomenclature change will align Section K.6.a with the remainder of the LNP Emergency Plan.

Associated LNP COL Application Revisions:

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

1. Revise Table B-1, Minimum Staffing Requirements for Emergencies, Capability for Additions Columns (sheets 1 and 2) from (See Attachment RAI 13.03-45 Table B-1):
30-45 min and 60-75 min

To Read:

30 min and 60 min

2. Revise Section H.4, Activation and Staffing of Emergency Response Facilities from:

NUREG-0654 Criterion II.B.5 states that the "licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency." It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Progress Energy's intent to expend its best efforts to meet the augmentation criteria goals regarding staffing emergency response facilities with sufficiently skilled individuals capable of handling an emergency. Progress Energy realizes that these time frames might be exceeded due to diversity of normal residential patterns for the plant's staff, possible adverse weather conditions, and road congestion.

Progress Energy has put into place plans and procedures to ensure timely activation of the emergency response facilities. The Nuclear Shift Manager, acting as Emergency Coordinator (EC), will initiate a call-out in accordance with emergency plan implementing procedures. The Emergency Response Organization (ERO) augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in Table B-1, Minimum Staffing Requirements for Emergencies. This table was developed based on the functions listed in NUREG-0654, Table B-1. Depending on the emergency, personnel with required expertise will be contacted on a priority basis, as shown in Table B-1. Additional personnel will be available to provide communications; onsite and offsite radiological assessment; repair and corrective actions; and technical support within a short period of time. Although the response time will vary due to such factors as weather and traffic conditions, 30-45 minutes should provide enough time to make the appropriate staff available to augment the plant's onshift organization. The ERO will continue to be augmented such that within 60-75 minutes after notification, additional personnel will be added to provide the necessary support.

Progress Energy staffs and activates the designated emergency response facilities as follows:

- a. Notification of Unusual Event – Emergency response facility staffing not normally needed, but may be undertaken at the discretion of the EC.
- b. Alert – Staffing of the TSC and OSC is required (EOF and ENC staffing is discretionary).
- c. Site Area Emergency and General Emergency – Staffing of the TSC, OSC, EOF, and ENC is required.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes has been established for minimum staffing in the TSC, OSC, and EOF. It is the goal of the organization to be capable of declaring the applicable emergency response facility operational within 15 minutes of achieving minimum staffing. During the facility activation process, the facility managers will determine that minimum staffing has been met, as described in the emergency plan implementing procedures, and verify the readiness to declare the facility operational with facility ERO members.

The facility can be declared operational when the following conditions are met:

- Minimum staffing has been achieved.
- Personnel have been briefed on the situation and a proper turnover has been conducted.

- The facility is functionally capable of performing the appropriate emergency response activity.

The 60-minute response time and 15-minute activation times are not applicable to the ENC. ENC personnel must first coordinate the decision to activate the ENC with the appropriate offsite authorities responding to the facility.

Depending on the emergency classification declared at the site, State and local emergency response personnel will also staff and activate their emergency response facilities.

To Read:

NUREG-0654 Criterion II.B.5 states that the "licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency." It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Progress Energy's intent to expend its best efforts to meet the augmentation criteria goals regarding staffing emergency response facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and LNP realize that due to diversity of normal residential patterns for the plant's staff, possible adverse weather conditions and road congestion, these time frames might be exceeded.

Progress Energy has put into place plans and procedures to ensure timely activation of the emergency response facilities. The Nuclear Shift Manager, acting as Emergency Coordinator (EC), will initiate a call-out in accordance with emergency plan implementing procedures. The Emergency Response Organization (ERO) augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in Table B-1, Minimum Staffing Requirements for Emergencies. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Depending on the emergency, personnel with required expertise will be contacted on a priority basis, as shown in Table B-1. Additional personnel will be available to provide communications; onsite and offsite radiological assessment; repair and corrective actions; and technical support within a short period of time.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the notification of an Alert has been established for the ERO personnel responding to the station emergency facilities. A goal of 60 minutes for minimum staffing, following the notification of a Site Area Emergency or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the ENC when the classification of a Site Area Emergency or higher emergency classification is declared.

It is the goal of the organization to be capable of declaring the applicable emergency response facility operational within 15 minutes of achieving minimum staffing. The facility can be declared operational when the following conditions are met:

- Minimum staffing has been achieved.
- Personnel have been briefed on the situation and a proper turnover has been conducted.

- The facility is functionally capable of performing the appropriate emergency response activity.

The 60-minute response time and 15-minute activation times are not applicable to the ENC. ENC personnel must first coordinate the decision to activate the ENC with the appropriate offsite authorities responding to the facility.

The senior manager in charge may elect to activate his/her facility without meeting minimum staffing if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response). Using professional judgment, the facility manager may appoint alternate personnel to fill vacant positions on an interim basis to respond to the emergency. Every effort to match the appropriate skill with position should be taken.

Depending on the emergency classification declared at the site, State and local emergency response personnel will also staff and activate their emergency response facilities.

3. Revise Table B-1, Minimum Staffing Requirements for Emergencies, Functional Area 6, In-plant Protective Actions row, Minimum Shift Size (Units 1 & 2) column from (See Attachment RAI 13.03-45 Table B-1):

1

To Read:

3^(f)

4. Revise Table B-1, Minimum Staffing Requirements for Emergencies, LNP TOTAL (Less Security) row, Minimum Shift Size (Units 1 & 2) column from (See Attachment RAI 13.03-45 Table B-1):

22

To Read:

24

5. Add the following paragraph to the end of Section B.5.1.p, On-Site Emergency Response Organization, Radiological Control Teams:

Radiological Control Team Personnel are typically composed of Radiation Control staff. Regardless if the Radiological Control Team Personnel assigned to in-plant protective actions per Table B-1 is composed of Radiation Control staff or other on-shift members each member will be trained in in-plant protective actions. Radiological Control Team Personnel will not have collateral emergency response duties that compete or conflict with in-plant protective actions or any other assigned emergency response function per Table B-1.

6. Revise the first line of the third paragraph of Section I.4.1, On-Site Dose Assessment from:

In-plant evaluations and radiological surveys are performed by the Radiation Monitoring Team.

To Read:

In-plant evaluations and radiological surveys are performed by the Radiological Control Team.

7. Revise the fourth paragraph of Section I.4.1, On-Site Dose Assessment from:

It is important to determine radioactive levels at the site boundary, and beyond, as soon as possible following an accidental release. These activities are performed by the Radiation Monitoring Team in accordance with implementing procedures. TLDs have been strategically placed within the Exclusion Area Boundary. However, conditions at the time of occurrence of any emergency will dictate specific areas where intense radiological monitoring efforts will be required. Upon activation and preparation of the Radiation Monitoring Team, the Radiation Controls Coordinator and EC will determine area(s) to be monitored. The Radiation Monitoring Team has sole responsibility for plume monitoring until such time as the state monitoring teams arrive and assume this responsibility for areas beyond the site boundary. As required, a general beta-gamma survey, gross particulate air sampling, gross iodine sampling, TLD collection and replacement, if applicable, and smear surveys will be conducted. The need for additional or continuing surveys is established by the EC. Results of surveys are appropriately recorded and reported to the TSCs via portable transceiver. The TSCs transmit the results to the EOF for coordination of analysis, as appropriate, with state survey results.

To Read:

It is important to determine radioactive levels at the site boundary, and beyond, as soon as possible following an accidental release. These activities are performed by the Radiological Monitoring Team in accordance with implementing procedures. TLDs have been strategically placed within the Exclusion Area Boundary. However, conditions at the time of occurrence of any emergency will dictate specific areas where intense radiological monitoring efforts will be required. Upon activation and preparation of the Radiological Monitoring Team, the Radiation Controls Coordinator and EC will determine area(s) to be monitored. The Radiological Monitoring Team has sole responsibility for plume monitoring until such time as the state monitoring teams arrive and assume this responsibility for areas beyond the site boundary. As required, a general beta-gamma survey, gross particulate air sampling, gross iodine sampling, TLD collection and replacement, if applicable, and smear surveys will be conducted. The need for additional or continuing surveys is established by the EC. Results of surveys are appropriately recorded and reported to the TSCs via portable transceiver. The TSCs transmit the results to the EOF for coordination of analysis, as appropriate, with state survey results.

8. Insert the following in Section B.5.1.q, On-site Emergency Response Organization and renumber remaining subsections:

Radiological Monitoring Teams: Radiological Monitoring Teams report to the Radiation Control Coordinator. Teams assemble at the site and are subsequently dispatched in vehicles to the surrounding area. They are responsible for offsite plume tracking, monitoring and other sampling activities.

9. Add the following new Section O.4.I, Emergency Response Training and Qualification, Radiological Monitoring Team:

Radiological Monitoring Team: Equipment and equipment checks, plume tracking and map reading, field measurement of airborne radioactivity, radiation levels and contamination in the EPZ, environmental sample collection, record keeping, communications and procedures.

10. Revise the last sentence of the first paragraph of Section K.6.a, Contamination Control Measures from:

The measures are initiated by the EC through the use of the Radiation Monitoring Team as described in the implementing procedures.

To Read:

The measures are initiated by the EC through the use of the Radiological Control Team as described in the implementing procedures.

11. Revise the first sentence of the second paragraph of Section K.6.a, Contamination Control Measures from:

In the event of a radiological emergency in which access to certain areas of the plant is required and hazardous radiation levels might be encountered, the Radiation Monitoring Team is dispatched and, among other duties, identifies the need to establish Radiation Controlled Areas (RCAs) and appropriate access and work precautions.

To Read:

In the event of a radiological emergency in which access to certain areas of the plant is required and hazardous radiation levels might be encountered, the Radiological Control Team is dispatched and, among other duties, identifies the need to establish Radiation Controlled Areas (RCAs) and appropriate access and work precautions.

Attachments/Enclosures:

1. RAI 13.03-45 Table B-1

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-46

Text of NRC RAI:

Subject: Notification of the NRC

Basis: Appendix E, Section IV.A.4, 10 CFR 50.72(a)(3), and 10 CFR 50.72(c)(3)

SRP Acceptance Criteria: Requirements B and F; Acceptance Criteria 1, 2, and 29

The LNP Emergency Plan provides discussion regarding how the NRC will be notified in the event of an emergency (including backup capability), the time frame in which notification will occur, and the individuals responsible for direct interface with offsite authorities. **Describe in the LNP Emergency Plan whether an open, continuous channel for communication with the NRC will exist, if requested, and the individual(s) who will perform this function.**

PGN RAI ID #: L-0883

PGN Response to NRC RAI:

LNP will maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC per 10 CFR 50.72(c)(3). If requested by the NRC, an open, continuous communications channel will be maintained with the NRC Operations Center over the ENS and/or HPN circuits. The Emergency Communicator has accountability to ensure the channel remains open upon request.

Associated LNP COL Application Revisions:

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

1. Revise Section B.5.1.g, On-site Emergency Response Organization from:

Emergency Communicator - CR: Initially filled with on-shift personnel, the Emergency Communicator is appointed by and reports to the EC and is responsible for communicating with the following:

1. Local Immediate Response Organizations (e.g., medical, fire, and law enforcement), if their assistance is needed.
2. The plant ERO when LNP emergency facilities are being activated.
3. Off-site authorities (e.g., state, counties, and the NRC) to perform required notifications of the declaration, upgrading, and termination of an emergency prior to the activation of the Technical Support Center (TSC) and EOF.

To Read:

Emergency Communicator: Initially filled with on-shift personnel assigned to the Control Room, and subsequently by the Emergency Communicator assigned to the TSC. The Emergency Communicator is appointed by and reports to the EC and is responsible for communicating with the following:

1. Local Immediate Response Organizations (e.g., medical, fire, and law enforcement), if their assistance is needed.
2. The plant ERO when LNP emergency facilities are being activated.
3. Off-site authorities (e.g., state, counties, and the NRC) to perform required notifications of the declaration, upgrading, and termination of an emergency prior to the activation of the Technical Support Center (TSC) and EOF.

The Emergency Communicator is also responsible to ensure an open, continuous communications channel is maintained with the NRC Operations Center over the ENS and/or HPN circuits, if requested.

2. Add the following paragraph to the end of Section E.1.2.b, Nuclear Regulatory Commission (NRC):

If requested by the NRC, an open, continuous communications channel will be maintained with the NRC Operations Center over the ENS and/or HPN circuits.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-47

Text of NRC RAI:

Subject: Emergency Communications Plan

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion F.1.d, Appendix E, Section IV.E.9(c) and (d)

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

The LNP Emergency Plan, Section F.1.d, describes communication links between the LNP ERFs (e.g., control rooms, TSCs, and EOF), State and county EOCs, and the Florida Department of Health's Bureau of Radiation Control (DHBRC). Section F.3 of the LNP Emergency Plan describes communication tests and test frequencies that occur between the LNP site, State and county warning points, State and local EOCs, and Environmental Monitoring Teams (State of Florida DHBRC) within the plume exposure pathway EPZ, and the NRC Operations Center.

- 1. Describe in the LNP Emergency Plan the provisions for communications from the EOF to the Progress Energy Radiological Monitoring Teams that are dispatched for offsite monitoring, as needed, prior to the arrival of the State of Florida DHBRC support.**
- 2. Describe in the LNP Emergency Plan the communications test frequency between the LNP site (e.g., Control Rooms, TSCs, OSCs as applicable, and EOF), and the offsite LNP Radiological Control Teams.**
- 3. Describe in the LNP Emergency Plan the frequency of testing communications between the LNP Control Rooms, TSCs, and EOF and the appropriate NRC Regional Office.**

PGN RAI ID #: L-0884

PGN Response to NRC RAI:

The LNP Emergency Plan currently refers to the offsite survey teams in NUREG-0654 as environmental monitoring teams. To align with NUREG-0654 and to distinguish between the LNP and State Monitoring Teams the LNP Emergency Plan will change "Environmental Monitoring Team" to "Radiological Monitoring Team" throughout the LNP Emergency Plan. This is a nomenclature change only and does not alter responsibilities in any way.

- 1. In a future revision, the LNP COLA Part 5 will be revised to include the provisions discussed below for communications from the LNP site to the Progress Energy**

radiological monitoring teams. A separate radio communications channel exists for communications from the EOF, TSC and Control Room to the Progress Energy Radiological Monitoring Teams that are dispatched for offsite monitoring, as needed, prior to the arrival of the State of Florida DHBRC support. Commercial cell phones, satellite phones, or other means are available as backup to the primary field team communications system.

2. In a future revision, the LNP COLA Part 5 Section F.3, Communication System Reliability, will be revised to state the communication test frequency between the LNP EOF, TSC and Control Room to the radiological monitoring team vehicles shall be annual. No other LNP facilities directly communicate with the offsite radiological monitoring teams and therefore do not need to be tested.

In a future revision to the LNP COLA Part 5 the annual testing frequency between the EOF, TSC and Control Room with the radiological monitoring teams, currently stated as "environmental monitoring teams", will be removed from the third paragraph under Section F.3 and placed in a separate paragraph. The change will clarify the testing frequency for the Progress Energy off-site radiological monitoring teams and remove any ambiguity that suggests LNP tests direct communication links with the State of Florida DHBRC Environmental Monitoring Teams.

3. The LNP COLA Part 5 will be revised in a future revision to require the frequency for testing communications between the LNP Control Rooms, TSCs, and EOF and the appropriate NRC Regional Office to occur on a monthly basis.

Associated LNP COL Application Revisions:

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

1. Revise Table B-1, Minimum staffing Requirements for Emergencies, emergency position for Off-site Surveys from:

Environmental Monitoring Team Personnel

To Read:

Radiological Monitoring Team Personnel

2. Add the following new Section F.1.h:

Progress Energy off-site Radiological Monitoring Team communications is via a separate radio communications channel installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow radio communication between the affected unit Control Room, TSC, EOF, and mobile units in Radiological Monitoring Team vehicles. Commercial cell phones, satellite phones, or other means are available as backup to the primary field team communications system.

3. Add the following Communications System after the Dose Assessment Ringdown on Table F-2, Interfacility/Organization Communications with an "X" in the LNP and EOF/ENC column:

Add: Radiological Monitoring Team Radio

4. Revise Section F.3, Communication System Reliability third paragraph from:

Communications between the nuclear facility, state, and local emergency operations centers, and environmental monitoring teams shall be tested annually.

To Read:

Communications between the nuclear facility, state, and local emergency operations centers, shall be tested annually.

5. Insert a new fifth paragraph into Section F.3, Communication System Reliability to read:
Communications between the Control Room, TSC and EOF to the Progress Energy off-site radiological monitoring team vehicles shall be tested annually.

6. Revise Appendix 8, NUREG-0654 Cross Reference Criteria F.1.d LNP Emergency Plan Section(s) from:

F.1.d

To Read:

F.1.d, F.1.h

7. Revise Section F.3, Communication System Reliability second paragraph from:

Communications from the Control Rooms, TSCs, and the EOF to the NRC Headquarters Operations Center shall be tested monthly.

To Read:

Communications from the Control Rooms, TSCs, and the EOF to the NRC Headquarters Operations Center and appropriate NRC Regional Office Operations Center shall be tested monthly.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-48

Text of NRC RAI:

Subject: Public Education and Information

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion G.1

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

In response to RAI 13.03-20 regarding Progress Energy's efforts to coordinate public education and information with the Crystal River 3 Plant (CR3), specifically in areas where the CR3 and LNP EPZs overlap, the applicant stated, in part, that the development and distribution of public safety information materials to resident, business, and transient populations will be shared between the two sites. Due to the proximity of the sites and overlapping EPZs, Progress Energy will develop and distribute one set of public information materials describing the 10-mile EPZs for both Levy and CR3. **Discuss whether provisions exist to ensure that the initial public information publications, developed in coordination with CR3, are distributed consistent with the Emergency Plan, or propose a post-licensing commitment (e.g., ITAAC, License Condition, or FSAR Commitment) to develop and distribute the initial public information publications, in coordination with CR3, within 180 days prior to fuel load at LNP.**

PGN RAI ID #: L-0885

PGN Response to NRC RAI:

Progress Energy-Florida will propose a license condition be added to a future revision of the LNP COLA, Part 10 to ensure that the initial LNP public information publications, developed in coordination with CR3, are distributed within 180 days prior to fuel load at LNP.

Associated LNP COL Application Revisions:

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

1. Revise Proposed License Condition 11. EMERGENCY PLANNING ACTIONS to add the following:
 - E. PGN will distribute initial LNP public information publications, developed in coordination with CR3 and consistent with the LNP Emergency Plan, to the public within 180 days prior to fuel load at LNP.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-49

Text of NRC RAI:

Subject: Emergency Facilities and Equipment

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion H.7, Appendix E, Section IV.E.4, Appendix E, Section IV.G

SRP Acceptance Criteria: Requirements A and B; Acceptance Criteria 1, 2, and 30

1. Section H.7, "Off-site Radiological Monitoring Equipment," of the LNP Emergency Plan states Progress Energy maintains the capability and resources for field monitoring with additional dosimetry as specified in the Offsite Dose Calculation Manual concerning the Environmental Radiological Monitoring Program. Thermo luminescent dosimeter (TLD) stations have been placed around the Site in each accessible sector at various distances. Additionally, the NRC TLD Direct Monitoring Network is in place to supplement Progress Energy's Environmental Radiological Monitoring Program.

a. Describe in the LNP Emergency Plan whether the availability of offsite radiological monitoring equipment (other than environmental TLDs) exists (e.g., fixed radioiodine and particulate monitors) in the vicinity of LNP to facilitate Progress Energy's timely response to a radiological emergency prior to receiving support from the State of Florida DHBRC.

b. Since the NRC TLD Direct Monitoring Network no longer exists, remove reference to this program, or provide justification for why this change is not necessary.

2. Section L.2.2, "First Aid Kits," of the LNP Emergency Plan states that first aid kits are located in various areas of the site, which contain equipment/items necessary to treat injured personnel until offsite support is available to transport patients to the appropriate treatment centers. **Describe in the LNP Emergency Plan whether any facilities and associated supplies (other than what is supplied in first aid kits) exist onsite for emergency first aid treatment, or provide justification as to why this information is not required.**

3. Section H.9, "Emergency Equipment and Supplies," of the LNP Emergency Plan states that emergency equipment and supplies to carry out provisions of the Emergency Plan are specified in the Emergency Plan Administrative Procedures. Section H.9 also provides discussion regarding procedures that contain provisions for the inventory, inspection, calibration, and operational checks of emergency equipment/instruments. **Describe in the LNP Emergency Plan what provisions exist to ensure that emergency supplies are maintained up-to-date.**

4. Section H.1.2, "Technical Support Center," states, in part, that the TSC is designed using human factors criteria contained in APP-GW-GLR-136, "AP1000 Human Factors Program Implementation for the Emergency Operations Facility and the Technical Support Center."

a. Explain why the Emergency Plan does not include a similar reference for the EOF.

b. Describe the capability of the TSC and EOF equipment and data displays to clearly identify and reflect the affected unit during a declared emergency, or propose an EP ITAAC to demonstrate this capability.

PGN RAI ID #: L-0888

PGN Response to NRC RAI:

1.a. Progress Energy maintains the capability and resources for field monitoring prior to receiving support from the State of Florida DHBRC. Section H.7, Off-Site Radiological Monitoring Equipment of the LNP Emergency Plan states Progress Energy has capabilities and resources for field monitoring with additional dosimetry as specified in LNP's ODCM concerning the Environmental Radiological Monitoring Program. Thermoluminescent dosimeter (TLD) stations have been placed around the Site in each accessible sector at various distances.

All other equipment needed by Progress Energy radiological monitoring teams will be obtained from the LNP Emergency Kits as described in Section H, Emergency Facilities and Equipment.

1.b Section H.7, Off-Site Radiological Monitoring Equipment, refers to the NRC TLD Direct Monitoring Network. The reference will be deleted in a future revision to the LNP COLA Part 5, Emergency Plan since the NRC TLD Direct Monitoring Network no longer exists. TLDs as described in the LNP Offsite Dose Calculation Manual are adequate to ensure Progress Energy can perform offsite radiological monitoring prior to receiving assistance from the State of Florida DHBRC.

2. The following information regarding first aid facilities and kits will be added to the LNP COLA Part 5 in a future revision. First aid facilities at LNP are designed to provide basic first responder aid to injured or ill personnel before arrival of offsite medical support. Emergency treatment areas are located in each of the units and are located at the Health Physics area near the work exits. The first aid facilities also contain the personnel contamination monitoring equipment, decontamination shower facilities, and first-aid equipment. Medical equipment and supplies are available at these locations. Additional first aid facilities and supplies will be located onsite as needed.

The first aid kits as described in Section L.2.2, First Aid Kits, and emergency treatment areas such as the Health Physics areas near the work exits contain the associated medical supplies. The supplies in the kits and treatment areas allow the Medical Response Personnel, certified by the State of Florida Department of Health, Bureau of Emergency Medical Services (EMS) and Community Health Resources to perform basic procedures on injured personnel not requiring a doctor. Offsite assistance will be requested for injured personnel requiring medical treatment that requires a doctor (treatment beyond basic first aid procedures). There are no other supplies other than what are contained in the first aid kits or first aid treatment areas that need to be added to the LNP Emergency Plan.

3. Section H.9, Emergency Equipment and Supplies of the LNP COLA Part 5 will be revised in the future to describe what provisions ensure emergency supplies are maintained up-to-date. Emergency supplies will be inspected on a quarterly basis and after each emergency or drill. Any supplies having a shelf life will be replaced during the inventories as necessary. The inventory requirement, inspection and quarterly frequency will be delineated in LNP emergency preparedness administrative procedures which will be required to be performed. No additional provisions are needed to ensure that LNP emergency supplies are maintained up-to-date.

4.a The LNP Emergency Plan refers to APP-GW-GLR-136, "AP1000 Human Factors Program Implementation for the Emergency Operations Facility and the Technical Support Center" in Section H.1.2, Technical Support Center. A similar reference to APP-GW-GLR-136 will be added to Section H.2.1 for the Emergency Operations Facility in a future COLA Part 5 revision.

4.b The TSC and EOF equipment and data displays will clearly identify and reflect the affected unit during a declared emergency for LNP. LNP COLA Part 10, License Conditions and ITAAC, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria, 12.1.1.D.2.d, Exercises and Drills, will be added in a future LNP COLA Part 10 revision to require the demonstration of the capability of the TSC and EOF equipment and data displays to clearly identify and reflect the affected unit.

Associated LNP COL Application Revisions:

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

1. Revise the second paragraph in Section H.7, Off-Site Radiological Monitoring Equipment from:

Progress Energy has capabilities and resources for field monitoring with additional dosimetry as specified in LNP's ODCM concerning the Environmental Radiological Monitoring Program. Thermoluminescent dosimeter (TLD) stations have been placed around the Site in each accessible sector at various distances. Additionally, the NRC TLD Direct Monitoring Network is in place to supplement Progress Energy's Environmental Radiological Monitoring Program.

To Read:

Progress Energy has capabilities and resources for field monitoring with additional dosimetry as specified in LNP's ODCM concerning the Environmental Radiological Monitoring Program. Thermoluminescent dosimeter (TLD) stations have been placed around the Site in each accessible sector at various distances.

2. Add the following paragraph to the end of Section L.2, On-Site First Aid Capability:

First aid facilities at LNP are designed to provide basic first responder aid to injured or ill personnel before arrival of offsite medical support. Emergency treatment areas are located in each of the units and are located at the Health Physics area near the work

exits. The first aid facilities also contain the personnel contamination monitoring equipment, decontamination shower facilities, and first-aid equipment. Medical equipment and supplies are available at these locations. Additional first aid facilities and supplies will be located onsite as needed.

3. Revise Section H.9, Emergency Equipment and Supplies, from:

Emergency equipment and supplies to carry out the provisions of the Emergency Plan are specified in the emergency plan administrative procedures.

Provisions have been made to inspect, inventory, and operationally check emergency equipment/instruments once each calendar quarter and after drills or an actual emergency, in accordance with administrative procedures. Sufficient reserves of instruments/equipment are provided to replace those that are removed from emergency kits for calibration or repair. Calibration of instruments has been established at intervals recommended by instrument suppliers, or as required by federal regulations.

To Read:

Emergency facilities and equipment are inspected and inventoried in accordance with emergency preparedness administrative procedures. The purpose of the inventories is to maintain emergency supplies up-to-date. These procedures provide information on location and availability of emergency equipment and supplies. An inventory of all emergency equipment and supplies is performed on a quarterly basis and after each use in an actual emergency or drill. During this inventory, radiation monitoring equipment is checked to verify that required calibration period and location are in accordance with the inventory lists. Surveillances include an operational check of instruments and equipment. Equipment, supplies, and parts which have a shelf-life are identified, checked, and replaced as necessary. Sufficient reserves of instruments and equipment are maintained to replace those which are removed from emergency kits or lockers for calibration or repair.

4. Add the following subsection bullet to the end of Section H.2.1.a.:

Designed using human factors criteria contained in APP-GW-GLR-136, AP1000 Human Factors Program Implementation for the Emergency Operations Facility and the Technical Support Center.

The following changes will be made in a future revision of the LNP COLA Part 10, License Conditions and ITAAC, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria:

1. Add the following to the Acceptance Criteria column of Table 3.8-1, Emergency Plan Inspections, Tests, Analysis, and Acceptance Criteria, 12.1.1.D.2:
 - d. Demonstrate the capability of TSC and EOF equipment and data displays to clearly identify and reflect the affected unit.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-50

Text of NRC RAI:

Subject: Emergency Response Data System

Basis: Section VI of Appendix E to 10 CFR Part 50

SRP Acceptance Criteria: Requirements A and B; Acceptance Criteria 2, 12, and 30

Section VI, "Emergency Response Data System," of Appendix E to 10 CFR Part 50 states that each licensee shall develop and submit an ERDS implementation program plan that includes, but not limited to, information on the licensee's computer system configuration (i.e., hardware and software), interface, and procedures. Section F.1, "Description of Communication Links," states that ERDS provides a real-time transfer of plant data from LNP to the NRC in which Progress Energy will activate within one hour of the declaration of an Alert or higher emergency classification in accordance with implementing procedures. **Clarify in the Emergency Plan whether the plant data transmitted from the plant computer system to the NRC Operations Center via ERDS will be representative of reactor core and coolant system conditions, reactor containment conditions, radioactivity release rates, and plant meteorological data, pursuant to the requirements of Section VI.2 of Appendix E to 10 CFR Part 50. Include in your discussion a listing of parameters that will be available to transmit from each unit at the LNP site.**

PGN RAI ID #: L-0889

PGN Response to NRC RAI:

LNP data will be transmitted from the plant computer system to the NRC Operations Center via ERDS. The LNP COLA Part 5 will be revised in the future to clarify data transmitted will be representative of reactor core and coolant system conditions, reactor containment conditions, radioactivity release rates and plant meteorological data pursuant to the requirements of Section VI.2, Emergency Response Data System, of Appendix E to 10 CFR Part 50. Data points identified in the parameters listed in Section VI.2.a.(i) for pressurized water reactors will be transmitted.

Associated LNP COL Application Revisions:

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

1. Revise Section F.1.c.5, Emergency Response Data System (ERDS) Channel from:

Emergency Response Data System (ERDS) Channel: Allows transmittal of reactor parametric data from LNP to the NRC. ERDS data is transmitted to the NRC Operations Center.

To Read:

Emergency Response Data System (ERDS) Channel: Allows transmittal of reactor parametric data from LNP to the NRC. ERDS data is transmitted to the NRC Operations Center in accordance with the requirements of Section VI.2, Emergency Response Data System, of Appendix E to 10 CFR Part 50.

2. Revise Section F.1.g, Description of Communication Links from:

The Emergency Response Data System (ERDS) provides a real-time transfer of plant data from LNP information systems to the NRC Operations Center in Rockville, Maryland. Progress Energy will activate the ERDS within one hour of the declaration of an Alert or higher emergency classification in accordance with LNP implementing procedures.

To Read:

The Emergency Response Data System (ERDS) provides a real-time transfer of plant data from LNP information systems to the NRC Operations Center in Rockville, Maryland. Data transmitted will be representative of reactor core and coolant system conditions, reactor containment conditions, radioactivity release rates and plant meteorological data pursuant to the requirements of Section VI.2, Emergency Response Data System, of Appendix E to 10 CFR Part 50. Data points identified in the parameters listed in Section VI.2.a.(i) for pressurized water reactors will be transmitted.

Progress Energy will activate the ERDS within one hour of the declaration of an Alert or higher emergency classification in accordance with LNP implementing procedures.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100
NRC Letter Date: February 16, 2011
NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-51

Text of NRC RAI:

Subject: Accident Assessment

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion I.5, and 10 CFR 52.80(a)

SRP Acceptance Criteria: Requirements A, B, and D; Acceptance Criteria 23

In response to Supplemental RAI 13.03-32, the applicant proposed EP-ITAAC 8.4 to display meteorological parameters in the TSC and Control Room. The data is provided in the format needed for the appropriate implementing procedures. Section I.5, "Meteorological Information," of the LNP Emergency Plan states that a permanent meteorological monitoring station is located within the Exclusion Area Boundary. It records the data that are required for performing dose projections and this information is presented in the CR, TSC, and EOF. **Discuss why EP-ITAAC 8.4 proposed in response to Supplemental RAI 13.03-32 does not include reference to the EOF, or revise EP-ITAAC 8.4 to include this information.**

PGN RAI ID #: L-0890

PGN Response to NRC RAI:

LNP EP-ITAAC 8.4 will be revised in a future LNP COLA revision to include the EOF.

Associated LNP COL Application Revisions:

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

1. Revise Table 3.8-1 Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria 8.4 first line from:

8.4 The following parameters are displayed in the TSC and Control Room:

To Read:

8.4 The following parameters are displayed in the Control Room, TSC and EOF:

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-52

Text of NRC RAI:

Subject: Radiological Exposure Control

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion K.5.b, Appendix E, Section IV.E.3

SRP Acceptance Criteria: Requirements A and B; Acceptance Criteria 1, 2, and 30

Section K.5 of the LNP Emergency Plan states that LNP provides decontamination supplies with emergency kits. Section H.1.2, "Technical Support Centers," of the LNP Emergency Plan states that TSC contains a decontamination area and monitoring area, and that the TSC is equipped with a survey meter and an area radiation monitor. **Describe in the LNP Emergency Plan whether any other onsite decontamination facilities (e.g., Rm. 40355 - HP area of Annex bldg.) and associated decontamination supplies, other than supplies in emergency kits, exists to be used for decontaminating onsite personnel. In addition, include in this description additional detail regarding the existence of a decontamination and monitoring area in the TSC since these locations are not identified in the AP1000 DCD drawings (Figure 1.2-19).**

PGN RAI ID #: L-0891

PGN Response to NRC RAI:

During non-emergency and emergency conditions decontamination showers and supplies are provided onsite in the Health Physics area located in the Annex Building of the AP1000 units along with additional personnel decontamination equipment and capabilities. Basic decontamination supplies such as soaps, shampoo, mild detergent, 3% Hydrogen Peroxide solution, plastic bags, plastic suits, cotton swabs, oral hygiene products, and saline solution will be available in the Health Physics area. The LNP Emergency Plan will be updated in a future LNP COLA revision to include the decontamination area in the Health Physics area.

The decontamination and monitoring station near the Health Physics area will remain the primary location during non-emergency and emergency conditions. However, in the event of an emergency where it is no longer practical for the Health Physics area to suffice as a decontamination and monitoring station for TSC personnel, the TSC will also have a decontamination and monitoring area set-up.

The TSC decontamination and monitoring area is not a fixed location such as the facility near the Health Physics area in the Annex Building. The TSC decontamination and monitoring area will be located based on facility needs, typically where personnel are entering the TSC. The

decontamination and monitoring area in the TSC will consist of a personnel monitoring instrument and mobile decontamination supplies such as bottled decontamination solutions. No additional or larger-scale area is needed in the TSC based on routine Radiation Protection Program radiological controls.

No additional description of the TSC decontamination and monitoring area needs to be added to the LNP Emergency Plan at this time since the area will be temporary and mobile based on facility need.

Associated LNP COL Application Revisions:

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

1. Revise Section H.1.2.c.4, Technical Support Centers Emergency Equipment and Supplies from:

Decontamination and monitoring area.

To Read:

Temporary decontamination and monitoring area as needed.

2. Revise Section K.5, Decontamination Action Levels, from:
 - a. LNP implements procedures for decontamination of on-site emergency personnel wounds, supplies, instruments and equipment, and for waste disposal. LNP provides decontamination supplies with emergency kits consistent with Section K.7 of this Plan.
 - b. LNP implements requirements for personnel and area decontamination, including decontamination action levels and criteria for returning areas and items to normal use, in procedures supporting the RPP.

To Read:

- a. LNP implements procedures for decontamination of on-site emergency personnel wounds, supplies, instruments and equipment, and for waste disposal. LNP provides decontamination supplies with emergency kits consistent with Section K.7 of this Plan.
- b. Personnel found to be contaminated will normally be attended to at decontamination areas located onsite. Temporary decontamination areas can also be set up inside at various locations, including the TSC. Decontamination showers and supplies are provided onsite in the Health Physics area located in the Annex Building of the AP1000 units along with additional personnel decontamination equipment and capabilities. Basic decontamination supplies such as soaps, shampoo, mild detergent, 3% Hydrogen Peroxide solution, plastic bags, plastic suits, cotton swabs, oral hygiene products, and saline solution will be available in the Health Physics area.

- c. LNP implements requirements for personnel and area decontamination, including decontamination action levels and criteria for returning areas and items to normal use, in procedures supporting the RPP.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-53

Text of NRC RAI:

Subject: Exercises and Drills

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion N.1.a, N.1.b, N.3.a-f, Appendix E, Section IV.F.2, Appendix E, Section IV.F.2.f

SRP Acceptance Criteria: Requirements A and B; Acceptance Criteria 1, 2, and 30

1. Section N, "Exercises and Drills," of the LNP Emergency Plan states that Progress Energy implements a program of periodic exercises to evaluate major portions of emergency response capabilities and to develop and maintain key emergency response skills.
 - a. **Describe in the LNP Emergency Plan whether EP exercises will simulate an emergency that results in offsite radiological releases which would require response by offsite authorities, and are conducted as set forth in NRC and FEMA rules, or provide justification as to why this information is not required.**
 - b. **Describe in the LNP Emergency Plan whether the following provisions for the conduct of EP exercises have been made: 1) exercises will test the adequacy of timing and content of implementing procedures and methods; 2) exercises will test emergency equipment, communication networks, and the public notification system; and 3) exercises will ensure the members of the ERO are familiar with their duties, or provide justification for why this information is not required.**
2. Section N.1.a, "Exercise Scope and Frequency," and N.1.b, "Exercise Scenario and Participation," provide discussion regarding the frequency of exercise play, participation by the State of Florida, and scope of scenarios such that all major elements of the LNP Emergency Plan are tested. Major elements to be tested include: management and coordination of emergency response, accident assessment, protective action decision making, and plant system repair and corrective action. **Describe in the LNP Emergency Plan whether the following provisions for the conduct of EP exercises have been made: 1) an EP exercises shall start between 6:00 p.m. and 4:00 a.m. once every six years; 2) exercises will be conducted during different seasons of the year to vary weather conditions; and 3) some exercise will be unannounced, or provide justification for why this information is not required.**

3. **Describe in the LNP Emergency Plan whether remedial exercises will be conducted for unsatisfactory performance during a biennial exercise that results in the loss of NRC and FEMA reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.**
4. Section N.3, "Conduct of Drills and Exercises," of the LNP Emergency Plan describes who is responsible for the overall development and direction of an exercise, and criteria included in an exercise plan. **Clarify in the LNP Emergency Plan whether the discussion provided in Section N.3 is also applicable for drills.**

PGN RAI ID #: L-0892

PGN Response to NRC RAI:

The LNP COLA Part 5 will be revised in a future revision to include the information discussed in responses 1 – 4 below.

- 1.a. EP exercises conducted in support of the LNP COLA Part 5, Emergency Plan Section N.1 Exercises, will simulate an emergency that results in offsite radiological releases which would require response by offsite authorities. The exercises are conducted in accordance with NRC and FEMA rules.
- 1.b. Section N.1 Exercises, of the LNP Emergency Plan requires the conduct of EP exercises to meet the following provisions:
 - Test the adequacy of timing and content of implementing procedures and methods,
 - Test emergency equipment, communication networks, and the public notification system, and
 - Ensure members of the ERO are familiar with their duties.
2. Section N.1.a, Exercise Scope and Frequency contains provisions for EP exercises to:
 1. Start between 6:00 p.m. and 4:00 a.m. once every six years, and
 2. Be conducted during different seasons of the year to vary weather conditions.Section N.1.a also contains the provision for some EP exercises to be unannounced.
3. Remedial exercises will be conducted for unsatisfactory performance during a biennial exercise that results in the loss of NRC and FEMA reasonable assurance that adequate protective measure can and will be taken in the event of a radiological emergency. Section N.4, Exercise and Drill Evaluation contains the provision for the remediation.
4. Section N.3 is applicable to exercises and drills. The section describes exercise content that shall be included in the exercise plan as described in Section N.3 a-e. The plan content listed in N.3 a-e should also be used for large scale integrated drills that involve activation and participation by both onsite and offsite agencies. Section N.3 will be revised in a future LNP COLA Part 5 revision to clarify the use of the N.3 a-e plan content for drills.

Associated LNP COL Application Revisions:

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

1. Revise Section N.1, Exercises, from:

An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

To Read:

An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. An exercise will simulate an emergency that results in offsite radiological releases which would require response by offsite authorities. Exercises are conducted as set forth in NRC and FEMA rules. In addition exercises shall be designed to:

- Test the adequacy of timing and content of implementing procedures and methods,
- Test emergency equipment, communication networks, and the public notification system, and
- Ensure members of the ERO are familiar with their duties

2. Revise Section N.1.a, Exercise Scope and Frequency from:

An emergency response exercise shall be conducted every two (2) years. The scenario should be varied such that all major elements of the Plan are tested within a 6-year period. During the interval between biennial Exercises, at least one (1) drill should be conducted involving principal areas of on-site emergency response capabilities. These areas include management and coordination of emergency response, accident assessment, protective action decision-making, and Plant system repair and corrective action. State and local agencies will be invited to participate in the "off-year" drills. Plan elements may be tested during "off-year" drills. Provisions for drills and exercises using terrorist based events are also part of the Drill and Exercise Program.

To Read:

An emergency response exercise shall be conducted every two (2) years. One exercise shall start between 6:00 p.m. and 4:00 a.m. once every six years. Exercises shall also be conducted during different seasons of the year to vary weather conditions. Some exercises should be unannounced.

The scenario should be varied such that all major elements of the Plan are tested within a 6-year period. During the interval between biennial Exercises, at least one (1) drill should be conducted involving principal areas of on-site emergency response capabilities. These areas include management and coordination of emergency response, accident assessment, protective action decision-making, and Plant system repair and corrective action. State and local agencies will be invited to participate in the "off-year" drills. Plan elements may be tested during "off-year" drills. Provisions for drills and exercises using terrorist based events are also part of the Drill and Exercise Program.

3. Add the following paragraph to the end of Section N.4, Exercise and Drill Evaluation

Remedial exercises will be required if the emergency plan is not satisfactorily tested during the biennial exercise, such that NRC, in consultation with FEMA, cannot find reasonable assurance that adequate protective measures can be taken in the event of a radiological emergency. The extent of State and local participation in remedial exercises must be

sufficient to show that appropriate corrective measures have been taken regarding the elements of the plan not properly tested in the previous exercise.

4. Revise the last sentence of the first paragraph of Section N.3, Conduct of Drills and Exercises, from:

This plan includes the following:

To Read:

This exercise plan includes the following:

5. Add the following to the end of Section N.3, Conduct of Drills and Exercises:

Large-scale integrated drills that involve participation and facility activation by both onsite and offsite agencies should also include a plan that contains content listed in N.3 a-e above.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-54

Text of NRC RAI:

Subject: Radiological Emergency Training

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion O.4.i, O.4.j, Appendix E, Section IV.F.1(b)(viii)

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

Section O.4 of the LNP Emergency Plan states, in part, that Progress Energy conducts a program for instructing and qualifying all personnel, and Company personnel not assigned to the site are utilized as members of this program. **Clarify in the LNP Emergency Plan the specialized initial and periodic refresher training (including the scope, nature, and frequency) for Corporate support personnel, including ENC and Corporate Communication personnel responsible for communicating with the media and public during an emergency.**

PGN RAI ID #: L-0893

PGN Response to NRC RAI:

Company personnel that are not assigned to the site, such as Corporate support personnel, may be members of the LNP ERO. However, all personnel regardless of whether they are assigned to the site or not will receive the same training for the ERO designated position per the LNP Emergency Plan. Per Section O.4, Emergency Response Training and Qualification, LNP conducts a program for instructing and qualifying all personnel who implement this Plan. Each individual completes the required training prior to assignment to a position in the emergency response organization. The training program establishes the scope, nature, and frequency of the required training and qualification measures.

Per Section O.5, Retraining, LNP conducts, or supports the conduct of, annual retraining for personnel with emergency response responsibilities, in accordance with the plant training program. Failure to successfully complete this training in a timely manner as specified in plant training program requirements results in the individual's removal from the ERO pending completion of the required training. There is no specialized initial and periodic refresher training for "Corporate" support personnel. No additional training needs to be added to the LNP Emergency Plan for personnel not assigned to LNP as all ERO positions are included in the training per Sections O.4 and O.5.

The Emergency News Coordinator, ENC responsible for communicating with the media is on the ERO and as such receives initial and annual retraining. A future revision to the LNP COLA Part 5 will specify training for communicating with the media includes:

- Development and issuance of news releases,
- Coordination and conduct of media briefings,
- Rumor control, and
- Media monitoring and correction of misinformation

Associated LNP COL Application Revisions:

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

1. Revise the third paragraph of Section O.4, Emergency Response Training And Qualification from:

Company personnel not assigned to the site are utilized as members of the program.

To Read:

Company personnel not assigned to the Site are utilized and trained as members of the program.

2. Revise the second paragraph, bullet k of Section O.4, Emergency Response Training And Qualification from:

k. Personnel responsible for communicating with the media and public.

To Read:

k. Personnel responsible for communicating with the media and public: Development and issuance of news releases, coordination and conduct of media briefings, rumor control, and media monitoring and correction of misinformation.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-55

Text of NRC RAI:

Subject: Supporting Plans

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion P.6

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

Section P.6, "Supporting Plans," of the LNP Emergency Plan contains a list of plans that support the LNP Emergency Plan. Section L.1.3, "Off-site Medical Support Plans," of the LNP Emergency Plan states that both Seven Rivers Regional Medical Center and Citrus Memorial Hospital have plans for emergency handling of radiation accident cases from the LNP to carry out the terms of the hospital's agreement with Progress Energy. **Explain why the plans from Seven Rivers Regional Medical Center and Citrus Memorial Hospital were not referenced in Section P.6 of the emergency plan, or revise the emergency plan to include this information.**

PGN RAI ID #: L-0894

PGN Response to NRC RAI:

Seven Rivers Regional Medical Center and Citrus Memorial Hospital both have plans that support LNP in responding to individuals exposed to radiation and/or radioactive material contamination. The plans will be added to Section P.6, "Supporting Plans" of the LNP COLA in a future revision.

Associated LNP COL Application Revisions:

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

1. Revise Section P.6, Supporting Plans, to add the following:
 - J. Citrus Memorial Hospital "Nuclear Accident Plan"
 - K. Seven Rivers Regional Medical Center "Radioactive Material Contamination Response Plan"
2. Revise Appendix 2, References, to add the following:
 - HH. Citrus Memorial Hospital "Nuclear Accident Plan"

- II. Seven Rivers Regional Medical Center "Radioactive Material Contamination Response Plan"

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-56

Text of NRC RAI:

Subject: Security-Based Event Considerations

Basis: 10 CFR 50.47; Appendix E to 10 CFR 50; Regulatory Guide 1.206, Section C.I.13.3.1

SRP Acceptance Criteria: 1, 2, and 30

In response to RAI 13.03-37 regarding an evaluation of the potential effect to onsite staffing with augmentation, and onsite evacuation strategies in consideration of a security event from damage to nearby hazardous, facilities, dams, and other nearby sites, the applicant stated, in part, that regardless of the origin (onsite or offsite) of the initiating condition, the LNP Emergency Plan adequately addresses the ability to classify, notify, and augment staffing during an emergency. LNP Appendix 4 and Table A4-4 (Recognition Category H) will be used to determine if the declaration of an emergency is warranted. In a prior response to RAI 13.03-30 regarding emergency classification, the applicant stated that 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. **Discuss why the response to RAI 13.03-37 refers to information previously deleted by the applicant, or supplement the RAI response to take into consideration the information provided in response to RAI 13.03-30.**

PGN RAI ID #: L-0895

PGN Response to NRC RAI:

The response previously submitted for RAI 13.03-37 referred to EAL information removed from the LNP Emergency Plan per RAI 13.03-30(3). The EAL information referred to NEI 07-01, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors, revision 0. The referral to NEI 07-01 was removed and the corresponding EAL information will transfer to Emergency Plan Implementing Procedure, "Emergency Classification". The evaluation and conclusion for RAI 13.03-37 remains unchanged taking into consideration the information provided in response to RAI 13.03-30. A revised response for RAI 13.03-37 is provided below.

RAI 13.03-37 Revised Response:

Proposed LNP License Condition 11.A states, "Progress Energy-Florida shall submit a fully developed set of site-specific Emergency Action Levels (EALs) for Levy Units 1 [Unit 2] to the NRC in accordance with NEI 07-01 revision 0, with no deviations. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load." LNP

Emergency Plan Implementing Procedure (EPIP), "Emergency Classification," provides recognition categories, the associated initiating condition matrices, and the emergency action levels described in NEI 07-01 revision 0.

The LNP Emergency Plan adequately addresses the ability to classify, notify, and augment during emergencies regardless if the initiating condition originates onsite or offsite. In the scenario provided where a security or other event occurs at a facility nearby the Levy site then NEI 07-01 Section 5.9, Hazards or Other Conditions Affecting Plant Safety EALs, Table 5-H-1: Recognition Category "H" Initiating Condition Matrix contains Initiating Conditions that will be used in the LNP EPIP, "Emergency Classification" to determine if the declaration of an emergency is warranted. The LNP EPIP, via Proposed License Condition 11.A includes EALs for events such as toxic gases, chemicals, flammables, explosions, fires, etc. that are detrimental to normal LNP operations. The EAL initiating conditions are independent of point of origin and the Emergency Plan and actions described below will be implemented regardless if the event initiates onsite or offsite.

When an emergency classification is deemed necessary that requires activation of the LNP Emergency Response Organization (ERO) the emergency facilities would be staffed per one of two scenarios:

1. When ERO personnel are onsite as is the case during a normal work day the onsite facilities would be staffed as normal. An event at a nearby site is very unlikely to cause an immediate health concern or nuclear safety concern preventing personnel from commuting to onsite facilities such as the TSC or OSC. Ventilation systems and other onsite protective measures protect the staff upon arrival.
2. When ERO personnel are offsite as is typical during night time and weekends, notification is made to respond to the onsite facilities as normal. In the event access to the site is deemed hazardous then the ERO is notified to respond to the Alternate Emergency Response Facility. Since the Alternate Emergency Response Facility is located approximately 10 miles from LNP it is not practical for meteorological conditions or a single event scenario at a nearby facility to prevent ERO response to both onsite and the alternate emergency response facility at the same time.

Notification and mobilization of the ERO is discussed in Section E of the LNP Emergency Plan. Section J, Protective Response provides additional direction to evacuate, relocate, stage, disperse or shelter personnel onsite based on the hazard present. The actions implemented are independent of the origination of the hazard.

The LNP Emergency Plan protects the public for scenarios that result in a nearby site causing an emergency declaration at LNP. No additional modification is needed for the LNP Emergency Plan due to nearby hazards identified in Part 2, "FSAR" Section 2.2.

Associated LNP COL Application Revisions:

No COLA revision has been identified associated with this response.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-57

Text of NRC RAI:

Subject: Update and Maintenance of Emergency Plan Implementing Procedures and Written Agreements

Basis: NUREG-0654/FEMA-REP-1, Revision 1, Evaluation Criterion P.4, Appendix E.IV.G to 10 CFR Part 50

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

Section P.4, "Plan Reviews and Updates," of the LNP Emergency Plan states that the emergency plan will be reviewed, updated, and certified to be current on an annual basis by the Emergency Planning Coordinator. Revisions to the Plan will be reviewed in accordance with 10 CFR 50.54(q) requirements. **Describe in the LNP Emergency Plan whether provisions exist to ensure written agreements and implementing procedures are maintained up-to-date.**

PGN RAI ID #: L-0896

PGN Response to NRC RAI:

In addition to the LNP Emergency Plan, written agreements and Emergency Plan Implementing Procedures in support of the LNP Emergency Plan will be reviewed, updated and certified to be current on an annual basis by the Emergency Planning Coordinator. Provisions described in Section P.4, Plan Reviews and Updates, will maintain the Emergency Plan, written agreements and implementing procedures up-to-date. A future revision to the LNP COLA Part 5 will add the requirements for written agreements and implementing procedures discussed above.

Associated LNP COL Application Revisions:

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

1. Revise Section P.4, Plan Reviews and Updates, first paragraph from:

This Emergency Plan shall be reviewed, updated as needed, and certified to be current on an annual basis. Any revisions to the Plan will be reviewed in accordance with 10 CFR 50.54(q) requirements.

To Read:

The Emergency Planning Coordinator will coordinate the updating of the Emergency Plan, Plant Emergency Procedures (PEPs), and Supporting Agreements, as needed, and will

review and certify them to be current on an annual basis. Any revisions to the Plan will be reviewed in accordance with 10 CFR 50.54(q) requirements.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 13.03-58

Text of NRC RAI:

Subject: Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)

Basis: 10CFR 52.80(a)

SRP Acceptance Criteria: Requirements A, B, and D; Acceptance Criteria 23

In response to RAI 13.03-44(2) regarding inconsistencies between EP-ITAAC 12.1.1.E.3 and 8.1.B.3, and the augmentation times identified in LNP Table B-1, the applicant committed to revise EP-ITAAC 12.1.1.E.3 to align with LNP Table B-1. The discussion in this RAI response is inconsistent with the discussion provided in response to RAI 13.03-D.1 in which the staff found acceptable. In addition, the applicant did not address EP-ITAAC 8.1.B.3 in its response. **Revise EP-ITAAC 12.1.1.E.3 and 8.1.B.3 to align with the response provided in RAI 13.03-D.1 regarding staff augmentation times.**

PGN RAI ID #: L-0897

PGN Response to NRC RAI:

EP-ITAAC to include 8.1.B.3 and 12.1.1.E.3 will be revised in a future revision of the LNP COLA Part 10, License Conditions and ITAAC. The EP-ITAAC will align with the LNP Emergency Plan as discussed in RAI 13.03-45(2) associated with Table B.1, Minimum Staffing Requirements for Emergencies, "capability for additions" augmentation times.

In addition, EP-ITAAC will be revised to consistently use the nomenclature of "radiological monitoring team" throughout the EP-ITAAC when referring to Progress Energy offsite environmental team personnel. The nomenclature change will align the EP-ITAAC to the LNP Emergency Plan terminology.

Associated LNP COL Application Revisions:

The following changes will be made in a future revision of the LNP COLA Part 10, License Conditions and ITAAC, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria:

1. Delete the word "field" in the last line of EP-ITAAC 5.1 Acceptance Criteria.
2. Revise EP-ITAAC 7.5 Acceptance Criteria from:

The means exists to provide offsite radiological monitoring equipment in the vicinity of LNP for environmental monitoring including environmental monitoring team dosimetry.

To Read:

The means exists to provide offsite radiological monitoring equipment in the vicinity of LNP for environmental monitoring including radiological monitoring team dosimetry.

3. Revise EP-ITAAC 8.1.B.3 Acceptance Criteria from:

Demonstrate the ability to activate radiological monitoring teams within 75 minutes of event declaration.

To Read:

Demonstrate the ability to activate:

- a. One radiological monitoring team (2 personnel) within 30 minutes of event declaration and,
- b. A second radiological monitoring team (2 personnel) within 60 minutes of event declaration.

4. Revise EP-ITAAC 8.6 Acceptance Criteria from:

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.

To Read:

A drill or exercise is conducted that demonstrates the ability of the radiological monitoring teams to be dispatched and locate and monitor a radiological release within the plume exposure EPZ.

5. Replace the term "field team(s)" with "radiological monitoring team(s)" in the first and third sentences of EP-ITAAC 8.7 Acceptance Criteria.
6. Replace the term "field team" with "radiological monitoring team" in EP-ITAAC 8.8 Acceptance Criteria.
7. Replace the term "field monitoring team" with "radiological monitoring team" in EP-ITAAC 8.9 Acceptance Criteria.
8. Revise EP-ITAAC 12.1.1.C.1.a Acceptance Criteria from:

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.

To Read:

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 minutes of ERO notification.

9. Revise EP-ITAAC 12.1.1.E.3.a Acceptance Criteria from:

- a. One environmental monitoring team is ready to be deployed no later than 60 minutes (45 minutes to activate per Table B-1 of LNP Emergency Plan + 15 minutes for briefing) from the declaration of an Alert or higher emergency.

To Read:

- a. One radiological monitoring team (2 personnel) is ready to be deployed no later than 30 minutes from the declaration of an Alert or higher emergency.
- b. A second radiological monitoring team (2 personnel) is ready to be deployed no later than 60 minutes from the declaration of an Alert or higher emergency.

10. Replace the term "field team" with "radiological monitoring team" in EP-ITAAC 12.1.1.E.4 Acceptance Criteria.

11. Revise EP-ITAAC 12.1.1.E.4.b Acceptance Criteria from:

Offsite radiological environmental data is communicated from the environmental monitoring team to the Environmental Field Coordinator.

To Read:

Offsite radiological environmental data is communicated from the radiological monitoring team to the Radiation Control Coordinator.

Attachments/Enclosures:

None.

NRC Letter No.: LNP-RAI-LTR-100

NRC Letter Date: February 16, 2011

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: Not Applicable

Text of NRC RAI:

Not Applicable

PGN RAI ID #: L-0913

PGN Response to NRC RAI:

While addressing the RAIs in NRC RAI-LNP-LTR-100, three (3) additional changes were identified for the LNP COLA Emergency Plan and EP-ITAAC. Two of the three changes are associated with the LNP Part 5, Emergency Plan and one for the EP-ITAAC. The LNP Emergency Plan changes include:

1. Section B.5.1.s, Fire Brigade, has an omission in the fourth sentence. The sentence should refer the reader to Section O.4 to describe fire brigade training however, the section currently states fire brigade training is "as described in." Section O.4 will be added to the fourth sentence of Section B.5.1.s in a future revision.
2. Section C.1.b discusses the response time expected by the NRC if assistance is requested in support of the LNP Emergency Plan. The paragraph will be revised in a future revision to the LNP COLA Part 5 to clarify NRC assistance arrival time in support of the LNP Emergency Plan.

The change associated with LNP Part 10, License Conditions and ITAAC, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria is in regards to EP-ITAAC 12.1.3 acceptance criteria. EP-ITAAC 12.1.3 acceptance criteria currently does not provide reference to 10 CFR 50.54(g)(g). The reference will be added in a future revision to the LNP COLA to clearly state the basis for EP-ITAAC 12.1.3.

Associated LNP COL Application Revisions:

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

1. Revise the fourth sentence of Section B.5.1.s, Fire Brigade from:

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.

To Read:

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.4.

2. Revise Section C.1.b from:

Federal radiological monitoring assistance may be provided by the NRC. Progress Energy estimates that NRC support would arrive at the LNP site within 3 to 4 hours following the order to deploy, based on driving time. This response time may be shortened by use of aircraft. Progress Energy expects that NRC assistance from NRC's offices in Atlanta, Georgia, will arrive in the LNP site vicinity within 7 to 8 hours following notification; the team may also reduce this time by use of aircraft.

To Read:

Upon request for support Progress Energy expects that NRC assistance from NRC's offices in Atlanta, Georgia, will arrive in the LNP site vicinity within approximately 8 hours following notification and drive time; the team may also reduce this time by use of aircraft.

The following change will be made in a future revision of the LNP COLA Part 10, License Conditions and ITAAC, Table 3.8-1, Emergency Plan Inspections, Tests, Analyses, and Acceptance Criteria:

1. Revise EP-ITAAC 12.1.3 from:

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.

To Read:

The exercise was completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives were met, and there were no uncorrected offsite exercise deficiencies, or a license condition requires offsite deficiencies to be corrected prior to operation above 5% of rated power as described in 10 CFR 50.54(gg).

Attachments/Enclosures:

None.

Attachment to NRC RAI Number 13.03-45 (PGN RAI ID# L-0882)

RAI 13.03-45 Table B-1
Minimum Staffing Requirements for Emergencies
[2 pages following this cover page]

**Levy Nuclear Plant Units 1 and 2
COL Application
Part 5, Emergency Plan**

**Table B-1 (Sheet 1 of 2)
Minimum Staffing Requirements for Emergencies**

Functional Area	Location	Major Tasks	Emergency Positions	Minimum Shift Size (Unit 1)	Minimum Shift Size (Units 1 & 2)	Capability for Additions	
						30 min	60 min
1. Plant Operations and Assessment of Operational Aspects	Control Room	Control Room Staff	Nuclear Shift Manager (NSM) ^(a)	1	1	--	--
			USCO	1	2	--	--
			Control Operators	2	4	--	--
			Non-Licensed Operators	2 ^(b)	4 ^(b)	--	--
2. Emergency Direction and Control	Control Room EOF TSC	--	EC – CR (NSM) ^(c)	1	1	--	--
			EOF Director ^(d)	--	--	--	1
			EC – TSC ^(d)	--	--	--	1
3. Notification and Communication	CR/TSC/EOF	Emergency Communicator	Plant Personnel	1	2	1	2
4. Radiological Assessment	EOF	Off-site Dose Assessment	Dose Projection Team Leader	--	--	1	--
	EOF	Off-site Surveys	Environmental Monitoring Team Personnel	--	--	2	2
	OSC	On-site Surveys	Radiological Control Team Personnel	--	--	1	1
	OSC	In-plant Surveys	Radiological Control Team Personnel	1	2	1	1
	OSC	Chemistry	Chemistry Team Personnel	1	2	--	1

(Continued on next page)

NOTES:

- a) After activation of the EOF and TSC.
- b) One of the two non-licensed operators may be assigned to the Fire Brigade.
- c) On shift responsibility prior to activation of the EOF and TSC.
- d) Overall direction of facility response is assumed by the EOF Director when all facilities are activated. The direction of minute-to-minute facility operations remains with the EC – TSC.

**Levy Nuclear Plant Units 1 and 2
COL Application
Part 5, Emergency Plan**

**Table B-1 (Sheet 2 of 2)
Minimum Staffing Requirements for Emergencies**

Functional Area	Location	Major Tasks	Emergency Positions	Minimum Shift Size (Unit 1)	Minimum Shift Size (Units 1 & 2)	Capability for Additions	
						30 min	60 min
5. Plant Engineering, Repair and Corrective Actions	CR	Technical Support	Shift Technical Advisor ^(e)	1	1	--	--
	TSC		Core Performance Engineering	--	--	1	--
	TSC	Repair and Corrective Actions	Mechanical Engineering	--	--	--	1
	TSC		Electrical Engineering	--	--	--	1
	OSC		Mechanical Maintenance	1	1	--	2
	OSC		Electrical/I&C Maintenance	1	1	2	1
6. In-plant Protective Actions	OSC	Radiation Protection	Radiological Control Team Personnel	2 ^(f)	3 ^(f)	2	2
7. Fire Fighting	CR/OSC	--	--	5 ^(g)		Local Support	
8. First Aid and Rescue Operations	CR/OSC	--	Plant Personnel	2 ^(f)		--	--
9. Site Access Control	Various Security Posts	Security and Accountability	Security Team Personnel	(h)	(h)	(h)	(h)
LNP TOTAL (Less Security):				15	24	11	16

NOTES:

- e) One Shift Technical Advisor (STA) is assigned per shift during plant operation. A shift manager or another SRO on shift, who meets the qualifications for the combined Senior Reactor Operator/Shift Technical Advisor (SRO/STA) position, as specified for option 1 of Generic Letter 86-04, the commission's policy statement on engineering expertise on shift, may also serve as the STA. If this option is used for a shift, then the separate STA position may be eliminated for that shift. (Reference LNP FSAR 13.1.2.1.3.8 and FSAR Table 13.1-202)
- f) May be provided by shift personnel assigned other functions.
- g) Fire Brigade per FSAR.
- h) Per Security Plan.