



L-2011-384  
10 CFR 52.3

September 14, 2011

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

Re: Florida Power & Light Company  
Proposed Turkey Point Units 6 and 7  
Docket Nos. 52-040 and 52-041  
Initial Response to NRC Request for Additional Information Letter No. 035  
(eRAI 5681) Standard Review Plan Section 13.03 – Emergency Planning

Reference:

1. NRC Letter to FPL dated August 15, 2011, Request for Additional Information Letter No.035 Related to SRP Section 13.03, Emergency Planning for the Turkey Point Nuclear Plant Units 6 and 7 Combined License Application

Florida Power & Light Company (FPL) provides, as attachments to this letter, its initial responses to the Nuclear Regulatory Commission's (NRC) requests for additional information (RAI) 13.03-5 (subparts B-1, B-2, and B-3), RAI 13.03-6, RAI 13.03-7 (subparts E-1 and E-2), RAI 13.03-8 (subparts H-1 and H-4), RAI 13.03-9 (subparts J-1, J-2, J-4, and J-5), RAI 13.03-10 (subpart K-1), RAI 13.03-11 (subpart N-1), and RAI 13.03-13 (subpart P-1) provided in the referenced letter. The attachments identify changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

The responses to RAI 13.03-5 (subparts B-4, B-5, B-6, B-7, B-8, B-9, B-10, B-11, and B-12), RAI 13.03-8 (subparts H-2 and H-3), RAI 13.03-9 (subpart J-3), RAI 13.03-10 (subpart K-2), RAI 13.03-12 (subpart O-1), RAI 13.03-13 (subpart P-2), RAI 13.03-15 (subparts 1, 2, 3, 4, 5, 6, 7, 8, and 9), and RAI 13.03-16 (subparts A, B, and C), require additional research and are scheduled to be provided by September 30, 2011.

The response to RAI 13.03-14 (subparts a, b, and c) regarding emergency planning for hostile action considerations is scheduled to be provided by October 31, 2011.

If you have any questions, or need additional information, please contact me at 561-691-7490.

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Florida Power & Light Company

700 Universe Boulevard, Juno Beach, FL 33408

DO97  
AX45  
NRD

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

Executed on September 14, 2011.

Sincerely,



William Maher  
Senior Licensing Director – New Nuclear Projects

WDM/GRM

cc:

PTN 6 & 7 Project Manager, AP1000 Projects Branch 1, USNRC DNRL/NRO  
Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant 3 & 4

Attachment Number	Attachment Title
1	FPL Response to NRC RAI No. 13.03-5 (eRAI 5681)
2	FPL Response to NRC RAI No. 13.03-6 (eRAI 5681)
3	FPL Response to NRC RAI No. 13.03-7 (eRAI 5681)
4	FPL Response to NRC RAI No. 13.03-8 (eRAI 5681)
5	FPL Response to NRC RAI No. 13.03-9 (eRAI 5681)
6	FPL Response to NRC RAI No. 13.03-10 (eRAI 5681)
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8	FPL Response to NRC RAI No. 13.03-13 (eRAI 5681)

**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-5 (eRAI 5681)**

**SITE-2: Onsite Emergency Organization**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(2), Section IV.A.2.c of Appendix E to 10 CFR Part 50, NUREG-0654, Evaluation Criteria B.5, B.6, and B.7]

**RAI B-1**

Discuss whether corporate management, administrative, and technical support personnel will be used to augment the plant staff and interface with governmental authorities.

**RAI B-2**

COLA Part 5 Section B.1, "On-Shift Emergency Response Organization Assignments," contains paragraphs that address the assignments of various emergency response positions. The positions for control room operators, auxiliary operators, and radiation protection and chemistry personnel refer to staffing levels as defined in Technical Specifications. In addition, Section 2.2, "Normal Shift Staffing," in COLA Part 5 Annexes 2 and 3 indicates that the Shift Technical Advisor (STA) may not always be on duty, while Tables 2-1, "Turkey Point Emergency Response Organization On-Shift Staffing," in Annexes 2 and 3 identifies the STA as the individual responsible for offsite dose assessment. Even though Technical Specifications may allow relief for staffing some positions when a unit is shutdown or defueled, on-staff is needed in all operating modes of operation to respond in the event of an emergency. Discuss the controls in place to ensure the assigned emergency response organization will be available in all modes, or revise Section B.1 to refer to the staffing levels in Table B-1a, "Shift Emergency Response Organization," in Annexes 2 and 3, rather than in Technical Specifications.

**RAI B-3**

COLA Part 5 Section B.1 also addresses the Shift Communicator position (typically the unaffected unit SRO or another licensed operator). Discuss how one Shift Communicator can notify plant personnel, State and local agencies, and the NRC (including maintaining an open, continuous communication channel upon NRC request), in addition to performing other potential communications tasks while meeting time requirements during an escalating emergency?

**FPL RESPONSE:**

**RAI B-1**

Personnel from FPL corporate management may be utilized in the Emergency Operations Facility (EOF) and the Emergency News Center (ENC) as these facilities are in a FPL office building in Miami. Any individual assigned a position on the Emergency Response Organization (ERO) is trained in that specific position. Personnel selected to

fill any position in the EOF or the ENC from corporate management, administrative or technical support personnel have been selected based on their expertise and their ability to function in their assigned position in the ERO. For instance, a person in the corporate communications group that monitors the media on a routine basis for rumors or misinformation regarding FPL may be selected and trained to fill a position as a media monitor in the ENC looking for rumors generated concerning the events ongoing at the affected unit. Likewise, engineering personnel with knowledge and capabilities that could support the response may be selected and trained to fill technical support positions in the EOF such as Plant Data Operator.

A sentence will be added in a future revision to COLA Part 5, Section B.5.b to state: "Personnel from corporate management, administrative and technical support personnel may be used to augment plant staff and possibly interface with governmental authorities."

#### **RAI B-2**

The STA is not responsible for dose assessment activities on-shift. That is the responsibility of the shift chemistry technician. Appropriate modifications will be made to Table 2-1 in both Annex 2 and Annex 3 to indicate that the chemistry technician is the individual assigned to fill the on-shift position for Offsite Dose Assessment.

To clarify, information is provided in the Emergency Plan regarding the required availability of the Shift Technical Advisor (STA) to the operating shift in the Control Room. In Section B.1, the following statement is provided: "Shift Technical Advisor (STA): A qualified individual assumes an overview role as the STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the unit control room at all times. This position may be filled by a Senior Reactor Operator serving as STA/SRO for that shift." In addition, Section 2.2 of Annexes 2 & 3 (pages Annex 2-6 and Annex 3-6) indicates: "When on duty, the Shift Technical Advisor will be available to the Shift Manager in the Control Room within 10 minutes of being summoned."

In response to the concern that technical specifications may provide relief for a lower limit for on-shift staffing, a statement will be included in a future revision to COLA Part 5, Section B-1 that clarifies the requirement for the on-shift staffing to meet the requirements of Table 2-1 and B-1a. Minimum shift staffing is maintained to support the ERO as listed in Tables 2-1 and B-1a contained in each appropriate Annex. These tables outline the unit on-shift ERO and its relation to the normal staff complement and is not determined by the technical specifications.

In addition, in Section 2.3 of Annex 2 and Annex 3, the first sentence will be revised in a future COLA revision to include the phrase "in all modes" to meet the minimum staffing requirements and ensure that each position is filled to perform the tasks associated with that position.



### **RAI B-3**

The following discussion is provided regarding the ability for the Shift Communicator position (typically the unaffected unit SRO or another licensed operator) to notify plant personnel, State and local agencies, and the NRC (including maintaining an open, continuous communication upon NRC request); in addition to performing other potential communications tasks while meeting time requirements during an escalating emergency.

The requirements for communicating the information to the various personnel, agencies, and authorities provide varying time requirements for those notifications. FPL has confidence in the on-shift personnel to complete their assigned duties during an emergency. The PTN Emergency plan provides the sequence in which the notifications are made during the course of an emergency event. Section D.1 of the PTN Emergency Plan provides the basic sequence provided in the emergency response implementing procedure for notifications during an emergency.

In each event, if the NRC requests an open line, the communicator will provide that communication link at that time as their other required notifications have been completed. If a follow-up notification is due to the offsite authorities, the TSC State and County Communicator will be staffed and available to make those required notifications. In an escalating emergency, the on-shift communicator will request assistance from the Emergency Coordinator from other shift or unaffected unit personnel.

Per Section D.1 a., D.1 b., D.1.c, and D.1.d beginning on Page D-1 of the PTN COLA Emergency Plan, the sequence of notifications by the shift communicator is:

#### **At the Unusual Event**

- Notifications to plant and company management.
- Notification, within 15 minutes, of the state and counties.
- At the discretion of the Emergency Coordinator or plant management, full or selective staffing of any one or more of the emergency response facilities may be initiated, and
- Notification of the NRC as soon as possible but within 60 minutes of classification.

At the Alert the same sequence is followed with one additional notification step:

After the notification of state and counties,

- Activation of the TSC and OSC. The Recovery Manager places the EOF and ENC personnel in the facility ready for activation to support the response as conditions warrant.

At the Site Area Emergency or a General Emergency the Alert notification sequence is followed with:

- Activation of the TSC, OSC, EOF, and ENC.

This response is PLANT SPECIFIC.

**References:**

None

**ASSOCIATED COLA REVISIONS:**

**RAI B-1**

A sentence will be added to the end of the first paragraph of COLA Part 5, Section B.5.b in a future COLA revision, as shown below:

Offsite ERO (Figure B-1c): The Offsite ERO is activated during an emergency classified as an *Alert* or higher. It can also be activated by the Recovery Manager at his discretion during an *Unusual Event*. It functions under the direction of the Emergency Offsite Manager and is responsible for offsite emergency response activities. These activities include providing information to, and interface with, offsite authorities; monitoring offsite results of the event; protecting plant personnel outside the Protected Area(s), supporting the onsite organization, and coordinating the flow of information to the emergency public information (Emergency News Center) organization. **Personnel from corporate management, administrative and technical support personnel may be used at the EOF and ENC to augment plant staff and possibly interface with governmental authorities.**

**RAI B-2**

Table 2-1 of COLA Part 5, Annex 2 will be revised in a future COLA revision, as shown below:

**Table 2-1 Turkey Point Emergency Response Organization On-Shift Staffing**

Functional Area	Major Tasks	On-Shift Positions	On-Shift Emergency Plan Positions
1. Plant Operations and Assessment of Operational Aspects	Control Room Staff	Senior Reactor Operator (CR) Reactor Operator (CR)	
2. Emergency Direction and Control	Command and Control	Shift Manager (CR)	Emergency Coordinator
3. Notification and Communication	Emergency Communications	Non-Licensed Operator	State and County Communicator ENS Communicator
	In-Plant Team Control	Shift Manager (CR)	Emergency Coordinator
4. Radiological Assessment	Offsite Dose Assessment	Shift Technical Advisor <b>Chemistry Technician<sup>(a)</sup></b>	Dose Assessment
	Offsite Surveys	RP Technician <sup>(a)</sup>	Field Monitoring Team Personnel
	Onsite Surveys	RP Technician <sup>(a)</sup>	Onsite Monitoring Team Personnel
	In-plant Surveys	<b>HPRP</b> Technician	Onsite Monitoring Team Personnel
	Chemistry	Chemistry Technician	Chemistry Team
	RP Supervisory	<b>HPRP</b> Lead <sup>(b)</sup>	Direct <b>HPRP</b> Team Personnel
5. Plant System Engineering, Repair, and Corrective Actions	Technical Support/Accident Analysis	Operations Personnel	Operations Personnel
6. Fire Fighting	—	Fire Brigade	Fire Brigade
7. First Aid and Rescue Operations	—	Plant Personnel	Plant Personnel

(a) Responders from an unaffected Unit

(b) A designated shift ~~Health Physics~~ **Radiation Protection** Technician



Table 2-1 of COLA Part 5, Annex 3 will be revised in a future COLA revision, as shown below:

**Table 2-1 Turkey Point Emergency Response Organization On-Shift Staffing**

Functional Area	Major Tasks	On-Shift Positions	On-Shift Emergency Plan Positions
1. Plant Operations and Assessment of Operational Aspects	Control Room Staff	Senior Reactor Operator (CR) Reactor Operator (CR)	
2. Emergency Direction and Control	Command and Control	Shift Manager (CR)	Emergency Coordinator
3. Notification & Communication	Emergency Communications In-Plant Team Control	Non-Licensed Operator Shift Manager (CR)	State and County Communicator ENS Communicator Emergency Coordinator
4. Radiological Assessment	Offsite Dose Assessment	Shift Technical Advisor <b>Chemistry Technician<sup>(a)</sup></b>	Dose Assessment
	Offsite Surveys	<b>HPRP</b> Technician <sup>(a)</sup>	Field Monitoring Team Personnel
	Onsite Surveys	<b>HPRP</b> Technician <sup>(a)</sup>	Onsite Monitoring Team Personnel
	In-plant Surveys	<b>HPRP</b> Technician	Onsite Monitoring Team Personnel
	Chemistry	Chemistry Technician	Chemistry Team
	RP Supervisory	<b>HPRP</b> Lead <sup>(b)</sup>	Direct <b>HPRP</b> Team Personnel
5. Plant System Engineering, Repair, and Corrective Actions	Technical Support/Accident Analysis	Operations Personnel	Operations Personnel
6. Fire Fighting	—	Fire Brigade	Fire Brigade
7. First Aid and Rescue Operations	—	Plant Personnel	Plant Personnel

(a) Responders from an unaffected Unit

(b) A designated shift Health Physics **Radiation Protection** Technician

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The second sentence in the second paragraph of COLA Part 5, Section B.1 will be revised in a future COLA revision, as shown below:

**Minimum shift staffing is maintained to support the ERO as listed in** Tables 2-1 and B-1a contained in each appropriate Annex. **These tables** outlines the unit on-shift ERO and its relation to the normal staff complement **and is not determined by the technical specifications.**

The first sentence of COLA Part 5, Annex 2, Section 2.3 and Annex 3, Section 2.3 will be revised in a future COLA revision, as shown below:

The Unit 6 Annex, Table B-1a outlines shift ERO positions required to meet minimum staffing and the major tasks assigned to each position **in all modes.**

#### **RAI B-3**

No COLA changes have been identified as a result of this subpart response.

#### **ASSOCIATED ENCLOSURES:**

None



**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-6 (eRAI 5681)**

**SITE-4: Emergency Classification System**

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

The initial emergency action levels (EAL), that are required by 10 CFR 50.47(b)(4) and Section IV.B of Appendix E to 10 CFR Part 50, must be approved by the NRC. The Turkey Point combined license (COL) application does not fully address certain aspects of the required EAL scheme, because various equipment set points and other information cannot be determined until the as-built information is available (e.g., head corrections, radiation shine, final technical specifications, and equipment calculations and tolerances). The NRC evaluated possible options to ensure applicants address the regulations, and identified the following two acceptable options:

Option 1 – Submit an entire EAL scheme, which contains all site-specific information, including set points. Until this information is finalized, EALs will remain an open item.

Option 2 – Submit Emergency Plan Section D, “Emergency Classification System,” which addresses the four critical elements of an EAL scheme (listed below).

- *Critical Element 1* – Applicant proposes an overview of its emergency action level scheme including defining the four emergency classification levels, (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency), as stated in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.
- *Critical Element 2* – Applicant proposes to develop the remainder of its EAL scheme by using a specified NRC endorsed guidance document. In the development of its EALs, the proposed EALs should be developed with few or no deviations or differences, other than those attributable to the specific reactor design. NEI 07-01, Revision 0, applies to the AP1000 and ESBWR passive reactor designs, and NEI 99-01, Revision 5, applies to all non-passive reactor designs. If applicable, EALs related to digital instrumentation and control must be included.
- *Critical Element 3* – Applicant proposes a license condition, which requires that the licensee create a fully developed set of plant-specific EALs, in accordance with the specified guidance document, that have been discussed and agreed upon with State and local officials, and submit the EALs to the NRC for confirmation at least 180 days prior to initial fuel load.
- *Critical Element 4* – Applicant proposes to maintain the EALs in a document that is controlled by the 10 CFR 50.54(q) change process (e.g., in the Emergency Plan or a lower tier document, such as Emergency Plan Implementing Procedures).

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Please review the two options provided above, identify the chosen option, and provide the required EAL information.

**FPL RESPONSE:**

FPL adopts NRC Option 2 due to the unavailability of an approved set of Emergency Action Levels for the AP1000 units. This option will be addressed in PTN COLA Emergency Plan Annex 2, and will also be referred to in Annex 3. COLA Part 10, PTN Proposed License Condition 11, will also incorporate FPL's election of NRC Option 2.

FPL submits a Radiological Emergency Plan in a NUREG-0654 format featuring Section D.1, "Emergency Classification System." Section D.1 of the Plan addresses the four emergency classification levels, (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency) identified in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.

This response is PLANT SPECIFIC.

**References:**

None

**ASSOCIATED COLA REVISIONS:**

COLA Part 5, Annex 2, Attachment 1 will be revised in a future COLA revision, as shown below:

As identified in the NRC letter to Alan Nelson dated December 2, 2008 certain aspects of the PTN Units 6 & 7 emergency action levels (EAL) required by 10 CFR 50.47(b)(4) and Appendix E.IV.B of 10 CFR Part 50 cannot be completed. This is due to actual set points that cannot be derived until actual as-built information is available and certain Technical Specifications are finalized.

**FPL adopts NRC Option 2 that includes - Submit Emergency Plan Section D, "Emergency Classification System," which addresses the four critical elements of an EAL scheme (listed below).**

- **Critical Element 1 – FPL proposes an overview of its emergency action level scheme including defining the four emergency classification levels, (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency), as stated in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.**
- **Critical Element 2 – FPL proposes to develop the remainder of its EAL scheme by using a specified NRC endorsed guidance document. In the development of its EALs, the proposed EALs should be developed with few or no deviations or differences, other than those attributable to the specific reactor design. NEI 07-01, Revision 0, for the AP1000. If applicable, EALs related to digital instrumentation and control must be included.**
- **Critical Element 3 – FPL proposes a license condition, which requires that the licensee create a fully developed set of plant-specific EALs, in accordance with the specified guidance document, that have been discussed and agreed upon with State and local officials, and submit the EALs to the NRC for confirmation at least 180 days prior to initial fuel load.**



- **Critical Element 4 – FPL proposes to maintain the EALs in a document that is controlled by the 10 CFR 50.54(q) change process (e.g., in the Emergency Plan or a lower tier document, such as Emergency Plan Implementing Procedures).**

FPL has elected to submit a Radiological Emergency Plan in a NUREG-0654 format featuring a Section D, "Emergency Classification System," which addresses the four critical elements of an EAL scheme and contains general information regarding response to each emergency classification.

FPL will adopt its EAL scheme by utilizing the guidance in the NRC approved version of NEI 07-01 at least 180 days prior to initial fuel load of Unit 6.

Any deviations or differences in the proposed EALs from the applicable template will be justified.

Development of EALs in accordance with the guidance presented in NEI 07-01 and submittal of these EALs to NRC at least 180 days prior to fuel load is a proposed license condition presented in COL application Part 10.

COLA Part 10, PTN Proposed License Condition #11 will be revised in a future COLA revision, as shown below:

#### **11. EMERGENCY PLAN EAL SCHEME:**

FSAR Table 13.4-201 specifies that emergency plan implementing procedures be submitted at least 180 days prior to scheduled date for initial fuel load. Operating licenses typically have included the following condition related to emergency action levels: **Because various equipment set points and other information cannot be determined until as-built information is available, the COL Application does not fully address certain aspects of the EAL scheme. Thus, COL applicants using EAL schemes in accordance with NEI 07-01 are proposing the following license condition.**

#### **PROPOSED LICENSE CONDITION:**

The licensee shall submit a fully developed set of plant specific Emergency Action Levels (EALs) for Turkey Point Units 6 & 7 to the NRC for confirmation at least 180 days prior to initial fuel load. **The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Revision 0 with no deviations. The EALs shall have been discussed and agreed upon with State and local officials. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load.**

#### **ASSOCIATED ENCLOSURES:**

None

Proposed Turkey Point Units 6 and 7  
Docket Nos. 52-040 and 52-041  
FPL Response to NRC RAI No. 13.03-7 (eRAI 5681)  
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**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-7 (eRAI 5681)**

**SITE-5: Notification Methods and Procedures**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(5), Sections IV.D.1 and IV.A.4 (3 of 4) of Appendix E to 10 CFR Part 50, NUREG-0654, Evaluation Criteria E.1, E.4, and E.6.]

**RAI E-1**

COLA Part 5 Section E.2, "Notification and Mobilization of Emergency Response Personnel," describes the means for notifying local, State, and Federal officials and agencies. Identify in the Emergency Plan the appropriate officials (by title and agency) of the local, State, and tribal government agencies that are within the 10-mile plume exposure pathway EPZ and 50-mile ingestion pathway EPZ, and who will be notified of an emergency.

**RAI E-2**

COLA Part 5 Section E.4, "Follow-Up Messages," states that projected doses at the site boundary and at 2, 5, and 10 miles will be provided to State and county authorities on a prearranged frequency. Describe in the Emergency Plan how this information is included in follow-up messages to offsite authorities. If this is not required, explain why.

**FPL RESPONSE:**

**RAI E-1**

FPL has established a communication system that provides a direct line with the State of Florida, Miami-Dade County and Monroe County. FPL will revise Section E.2.b.1 as follows, to include clarification regarding the appropriate officials (by title and agency) of the local, State, and tribal government agencies that are within the 10-mile plume exposure pathway EPZ: "Personnel receiving the information at the emergency warning points are designated by the State/County Agencies. They include: the on-shift representative at the Miami-Dade Warning Point as designated by the Miami-Dade County Mayor, the on-shift representative at the Monroe County Warning Point as designated by the Monroe County mayor and the on-shift representative at State Watch Office-Tallahassee as designated by the Director - Division of Emergency Management, and the assigned communicators in the County and State Emergency Operations Centers (EOC)."

The responsibility of notification to the government agencies that are within 50-mile ingestion pathway EPZ is the responsibility of the State of Florida Radiological Emergency Response Plan Appendix II, Turkey Point Nuclear Power Plant Site Plan, Section II.F under State Division of Emergency Management (see COLA Part 9, Enclosure 2).

#### **RAI E-2**

FPL has addressed this concern with an addition to the method on which projected doses at the site boundary and at 2, 5, and 10 miles is provided in the "Follow-Up Messages" to the offsite authorities. Section E.4.a of the Emergency Plan will be revised to include that "the Florida Nuclear Plant Emergency Notification Form" is utilized to provide on pre-arranged frequency information to include the projected doses at the site boundary and at 2, 5, and 10 miles (see COLA Part 9, Enclosure 1, Figure 5-1 for the "Florida Nuclear Plant Emergency Notification Form").

This response is PLANT SPECIFIC.

#### **References:**

None

#### **ASSOCIATED COLA REVISIONS:**

##### **RAI E-1**

A new paragraph will be added after the last paragraph of COLA Part 5, Section E.2.b.1 in a future COLA revision, as shown below:

The emergency warning points are notified using a dedicated notification system. Commercial telephone lines, ESATCOM (satellite communications system), cellular telephones, and/or radios are available as backup notification methods.

**Personnel receiving the information at the emergency warning points are designated by the State/County Agencies. They include: the on-shift representative at the Miami-Dade Warning Point as designated by the Miami-Dade County Mayor, the on-shift representative at the Monroe County Warning Point as designated by the Monroe County Mayor and the on-shift representative at State Watch Office-Tallahassee as designated by the Director - Division of Emergency Management, and the assigned communicators in the County and State Emergency Operations Centers (EOC).**

##### **RAI E-2**

The first sentence of COLA Part 5, Section E.4.a will be revised in a future COLA revision, as shown below:

For all emergency classifications, follow-up messages to state and county authorities will be provided on a prearranged frequency to provide further description of the emergency **utilizing the Florida Nuclear Plant Emergency Notification Form**. The following information would be supplied to the extent the information is available and appropriate:

#### **ASSOCIATED ENCLOSURES:**

None



**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-8 (eRAI 5681)**

**SITE 8: Emergency Facilities and Equipment**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(8), Section IV.E of Appendix E to 10 CFR Part 50, NUREG-0654 Evaluation Criteria H.1, H.4, H.5 and H.6, Supplement 1 to NUREG-0737 (Subsections 6.1.c, 8.2.1.b, 8.2.1.h, and 8.4.1.g)]

**RAI H-1**

COLA Part 5 Section H.1.b states that the location of the Technical Support Center (TSC) is outside of the Protected Areas between the Control Room for Units 3 & 4 and the Control Rooms for Units 6 & 7. The guidance in Section 8.2.b of Supplement 1 to NUREG-0737 states that the TSC will be located within the site protected area so as to facilitate necessary interaction with the control room, OSC, EOF and other personnel involved with the emergency. Provide the justification for locating the TSC outside of the Protected Area, and describe any impediments (e.g., protected area security controls) that could impact or delay the transit time between the TSC and Control Rooms. In addition, discuss communication capabilities that compensate for the increased distance and transit time between the TSC to the Control Rooms.

**RAI H-4**

COLA Part 5 Section H.1.b, "Technical Support Center (TSC)," states on page H-4 that "[a]fter TSC activation, if it becomes uninhabitable for any reason, the TSC functions will transfer to the EOF if it is activated. If the EOF has not activated, the TSC function will be transferred back to the affected unit Control Room until the EOF can assume those functions." In contrast, NRC guidance document NUREG-0696, "Functional Criteria for Emergency Response Facilities," states in Section 2.6, "Habitability," that "[i]f the TSC becomes uninhabitable, the TSC plant management function shall be transferred to the control room." Describe how COLA Part 5 Section H.1.b comports with the applicable guidance criteria in NUREG-0696, and revise the Emergency Plan, if appropriate. (See also, Dominion Virginia Power's November 24, 2008, response to RAI Question 13.03-2.13, Serial No. NA3-08-087RA (ADAMS Accession No. ML083330286)).

**FPL RESPONSE:**

**RAI H-1**

FPL has chosen to develop a TSC that will support the response to Turkey Point Units 3, 4, 6, & 7. The TSC will be located north of Turkey Point Units 6 & 7 and south of Turkey Point Units 3 & 4. The separation of the TSC from the three control rooms will be approximately 2600 feet or within approximately a 10 to 15 minute walk. Use of current technologies such as updated computer equipment, teleconferencing, real time system monitoring through plant computer networks, and telephone and radio systems for primary and emergency communications will bridge the physical separation. The facility will have access to plant drawings, procedures, and computer applications needed to support the evaluation and decision-making processes of the Emergency

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Response Organization (ERO). The TSC will be a larger dedicated facility located in the Training Building. Procedures are in place to ensure that passage from outside the Protected Area into the Control Room is not hindered during the emergency. The placement of the TSC outside of the Protected Area enhances the ability to reach minimum staffing levels and for activation for the TSC especially during the off-hours. This location also provides an enhanced capability for staff to activate the facility during a hostile action event inside the Protected Area.

#### **RAI H-4**

FPL will conform to the guidance provided in NUREG-0696, "Functional Criteria for Emergency Response Facilities," regarding habitability. Section H.1.b will be revised to state, "After TSC activation, if it becomes uninhabitable for any reason, implementing procedures will provide guidance on the transfer of duties and relocation of the staff until such time that the TSC staff is able to fulfill their duties as assigned."

This response is PLANT SPECIFIC.

#### **References:**

None

#### **ASSOCIATED COLA REVISIONS:**

##### **RAI H-1**

No COLA changes have been identified as a result of this subpart response.

##### **RAI H-4**

The last paragraph of COLA Part 5, Section H.1.b will be revised in a future COLA revision, as shown below:

After TSC activation, if it becomes uninhabitable for any reason, **implementing procedures will provide guidance on the transfer of duties and relocation of the staff until such time that the TSC staff is able to fulfill their duties as assigned.** ~~the TSC functions will transfer to the EOF if it is activated. If the EOF has not activated, the TSC function will be transferred back to the affected unit Control Room until the EOF can assume those functions.~~

#### **ASSOCIATED ENCLOSURES:**

None

**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-9 (eRAI 5681)**

**SITE-10: Protective Response**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(10), Sections III and IV of Appendix E to 10 CFR Part 50, NUREG-0654 Evaluation Criteria J.1, J.3, J.10.a, and J.10.m]

**RAI J-1**

In the Emergency Plan, describe the time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator.

**RAI J-2**

Provide a map in the Emergency Plan that shows the location of the designated offsite assembly areas for personnel evacuating the site. If the assembly areas are not under the applicant's control, provide letters of agreement or other appropriate documentation that addresses their availability during an emergency.

**RAI J-4**

COLA Part 5 Section J.10(e) states that EPA 400-R-92-001 and NUREG-0654 (Supplement 3) provide the basis for the general protective action recommendations (PARs), which may include sheltering or evacuation. Describe in the Emergency Plan how the Evacuation Time Estimate (ETE) is used in determining the choice of recommended protective actions for the 10-mile plume exposure pathway during emergency conditions.

**RAI J-5**

COLA Part 5 Section J.10(e) states that many assumptions exist in dose assessment calculations, involving both source term and meteorological factors, which make computer predictions over long distances suspect. In addition, it states that plant personnel normally do not have the necessary information to determine whether offsite conditions would require sheltering instead of evacuation. This appears to contradict Figure J-2 (Sheets 1 of 3 and 2 of 3), which provides protective action recommendations (PARs) that include sheltering ("S") and evacuation ("E"). Explain how the results generated in the dose assessment are conveyed to offsite response organizations, including how the many assumptions are understood by those organizations. In addition, resolve the apparent contradiction between Section J.10(e) and Figure J-2, in regard to shelter and evacuation recommendations. If appropriate, revise the Emergency Plan to clearly indicate how specific PARs are determined and conveyed to offsite response organizations.

**FPL RESPONSE:**

**RAI J-1**

FPL will provide the time required to warn or advise individuals in the Protected Area by adding a phrase to the appropriate location in Section J.1 that provides for notification "within 15 minutes of the declaration of an emergency."

In addition, FPL will provide the time required to warn or advise individuals who may be in areas controlled by FPL by adding a phrase to the appropriate location in Section J.1 that provides for notification "within approximately 30 minutes of the declaration of an emergency."

#### **RAI J-2**

FPL has developed a map that illustrates the primary and alternate evacuation routes from the Turkey Point site. The map will be inserted as a figure into Annex 1, Annex 2, and Annex 3 of the Emergency Plan. A statement identifying the figure will also be added to Annex 1, Annex 2, and Annex 3.

#### **RAI J-4**

FPL does not utilize the ETE for the determination of general protective action recommendations (PAR). At any given time, it is unlikely that the Emergency Coordinator will have the information relating to any and all impediments that may be encountered by the general public when developing the general PARs. Therefore, FPL provides the PARs to the offsite authorities (counties) to determine the feasibility of implementing PARs provided by FPL based on plant conditions or radiological releases. The State of Florida Radiological Emergency Management Plan, Appendix II, Section II.A.6 states: "The County Mayor or designee (Director of the Office of Emergency Management) is responsible for selecting and implementing protective actions to preserve the health and safety of the residents and visitors to Miami-Dade County. The Director, Miami-Dade County Department of Health, as well as representatives from Florida Power and Light and the Bureau of Radiation Control, will recommend protective actions in any instance where the measured or projected exposure to the public intersects the exposure limits established by the Environmental Protection Agency. Miami-Dade County decision-makers are not bound by Florida Power and Light's recommendation."

Similarly, Monroe County is charged with the same responsibility in the State of Florida Radiological Emergency Management Plan, Appendix II, Section II.B.1 which states, "The Mayor, through the County Administrator and the Senior Director of Emergency Management, shall initiate actions and provide direction and control at the local level, to include consideration of in-place sheltering or evacuation as an option for the protection of the public, and conduct emergency operations to respond to the effects of a radiological emergency."



#### RAI J-5

FPL does not rely solely on the dose projections developed with the offsite dose assessment code and computer. There are factors that cannot be determined by FPL within the 10-mile EPZ. Therefore field-monitoring teams (FMTs) are equipped, briefed, and dispatched to determine the location of the radiological plume. Through radio or other communications the FMTs are provided direction where the dose assessment personnel believe the plume to be based on the computer projections. Using radiological instruments and air sampling devices, the FMTs survey the area and confirm the location of the plume or if it is not where the projection depicted, they are dispatched to locate it using their radiological instrumentation. In addition, information acquired by the FMTs is used to determine if the dose assessment is accurate for the current weather conditions. Protective Action Recommendations may be adjusted based on FMT generated information. To clarify the use on FMTs in the dose assessment activities, FPL will add a statement to Section J.10.e indicating the use of field monitoring teams for plume verification, enhancement of dose calculations, and modification of protective action recommendations, which reads: "Field Monitoring Teams, dispatched by FPL, are utilized to track the plume and verify or provide information to adjust the offsite dose estimates provided by the dose assessment computer projections."

This response is PLANT SPECIFIC.

#### References:

None

#### ASSOCIATED COLA REVISIONS:

##### RAI J-1

The first paragraph of COLA Part 5, Section J.1 will be revised in a future COLA revision, as shown below:

In the event of an emergency at Turkey Point, methods are established for notifying personnel within the Protected Areas and Owner-Controlled Area for all emergency classifications. The primary means of notification within the Protected Areas is the plant public address system and evacuation alarms, as described in Section F of this Plan. Announcements include the emergency classification and response actions to be taken by personnel onsite (such as ERO, non-ERO, contractor personnel, and visitors) **and are made within 15 minutes of the declaration of an emergency**. Provisions are made to alert personnel in high noise areas and outbuildings within the Protected Areas, as applicable. Turkey Point informs individuals located outside the Protected Areas, but inside the Owner-Controlled Area, via public address system announcements, alarms, and the activities of the Security Force (e.g. vehicle mounted public address systems) if needed **within approximately 30 minutes of the declaration of an emergency**. Turkey Point provides information regarding the meaning of the various warning systems and the appropriate response actions via plant training programs, visitor orientation, escort instructions, posted instructions, or within the content of audible messages. Escorts provide instructions to visitors who may not be trained to take specific emergency response actions.



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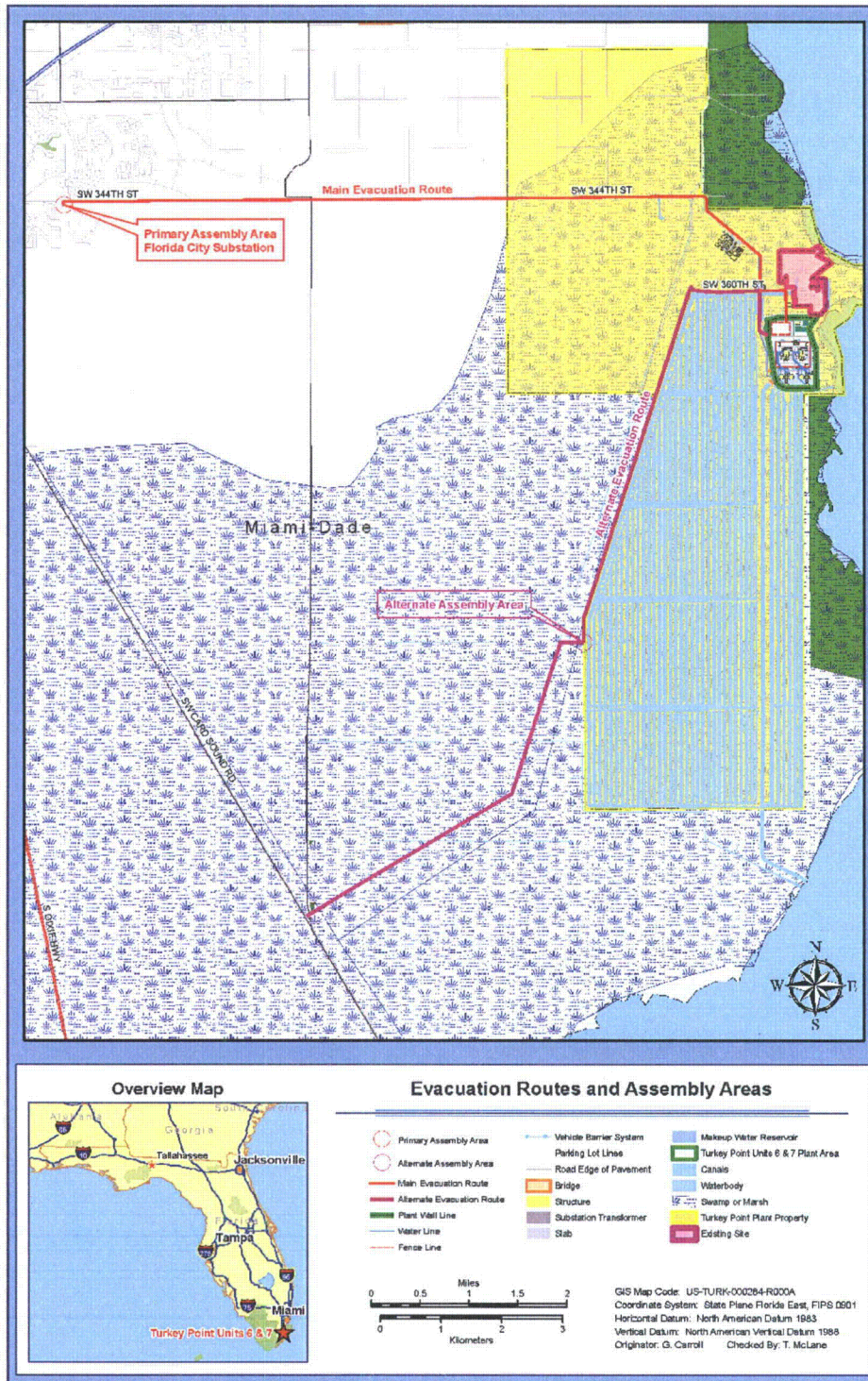
**RAI J-2**

A new sentence and Figure A1-2 will be added after the second paragraph of COLA Part 5, Annex 1, Section 5.3 in a future COLA revision, as shown below:

The alternate evacuation route will be used to evacuate personnel when radiological conditions prohibit the use of the primary evacuation route. This route uses the road north of the main discharge canal from the plant (Lake Warren), continuing west past the contractor entrance road through the access gates of the cooling canals, past the north end of the cooling canals and then turning south along the west perimeter road of the canals for approximately 4 miles to the alternate assembly area, turning west to the Levee 31 Access Road then south to Card Sound Road.

**The primary and alternate evacuation routes are illustrated in Figure A1-2.**

**Figure A1-2 Evacuation Routes and Assembly Areas**



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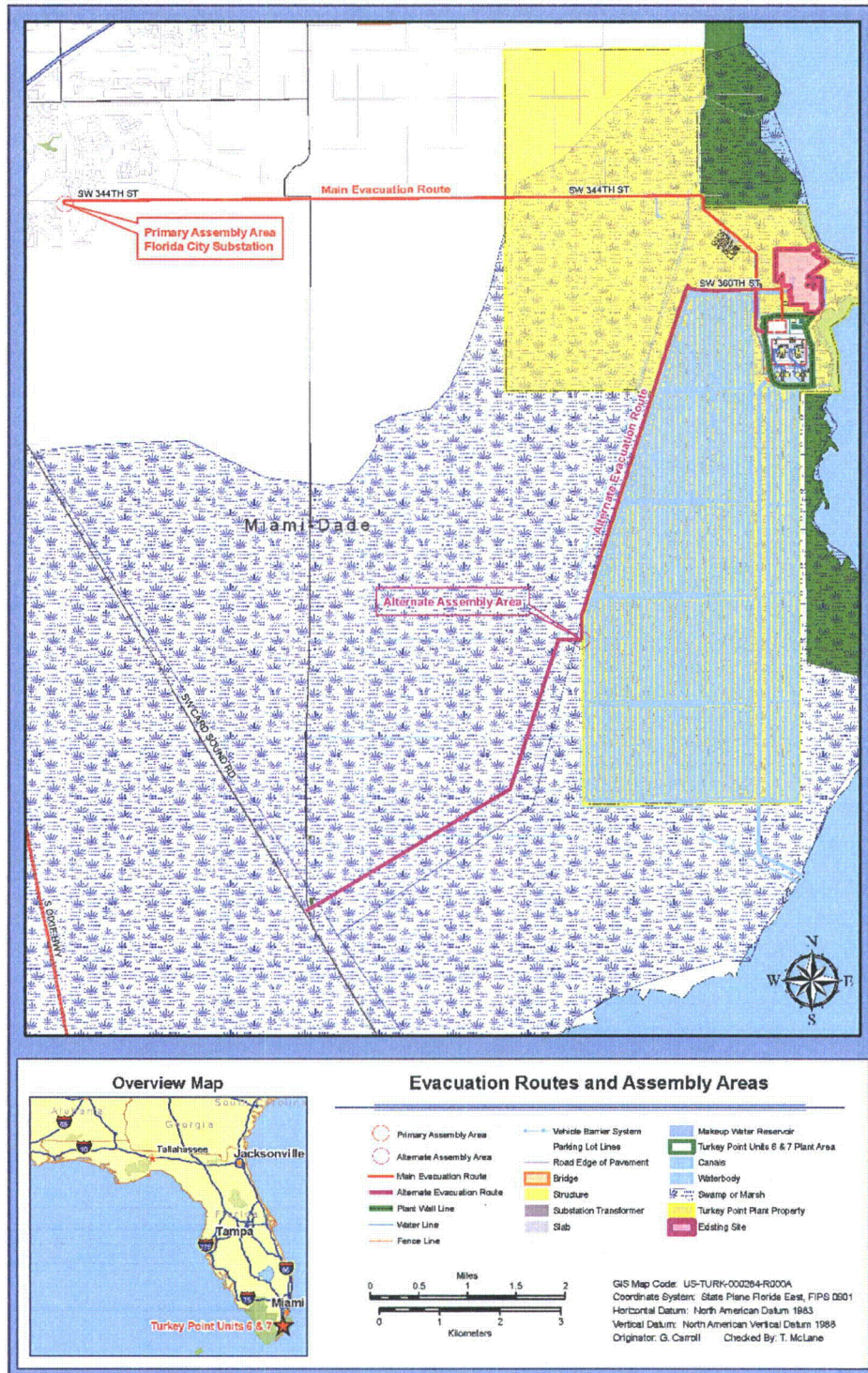
A new sentence and Figure B1-2 will be added after the second paragraph of COLA Part 5, Annex 2, Section 5.3 in a future COLA revision, as shown below:

The alternate evacuation route will be used to evacuate personnel when radiological conditions prohibit the use of the primary evacuation route. This route uses the road north of the main discharge canal from the plant (Lake Warren), continuing west past the contractor entrance road through the access gates of the cooling canals, past the north end of the cooling canals and then turning south along the west perimeter road of the canals for approximately 4 miles to the alternate assembly area, turning west to the Levee 31 Access Road then south to Card Sound Road.

**The primary and alternate evacuation routes are illustrated in Figure B1-2.**



**Figure B1-2 Evacuation Routes and Assembly Areas**



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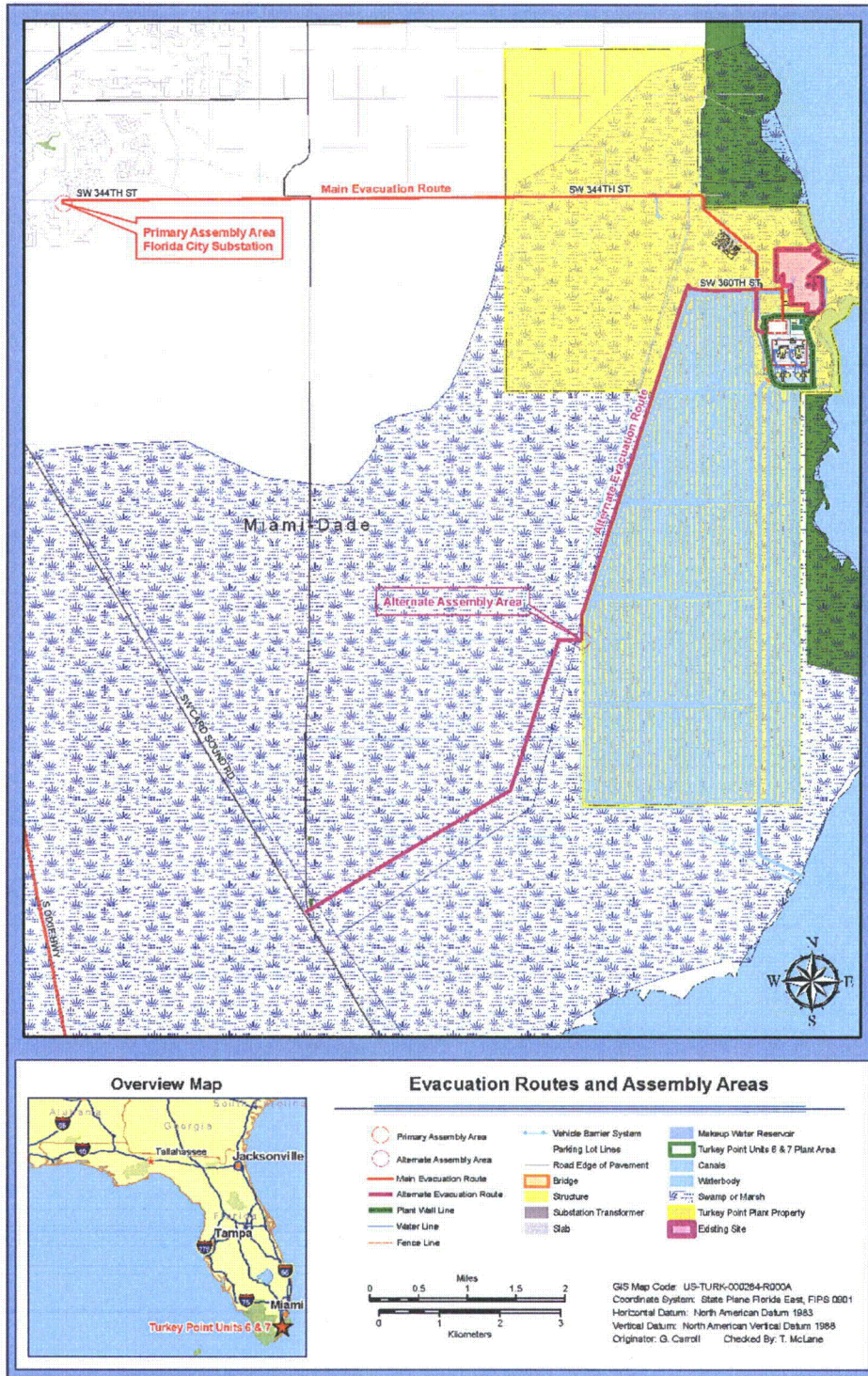
A new sentence and Figure C1-2 will be added after the second paragraph of COLA Part 5, Annex 3, Section 5.3 in a future COLA revision, as shown below:

The alternate evacuation route will be used to evacuate personnel when radiological conditions prohibit the use of the primary evacuation route. This route uses the road north of the main discharge canal from the plant (Lake Warren), continuing west past the contractor entrance road through the access gates of the cooling canals, past the north end of the cooling canals and then turning south along the west perimeter road of the canals for approximately 4 miles to the alternate assembly area, turning west to the Levee 31 Access Road then south to Card Sound Road.

**The primary and alternate evacuation routes are illustrated in Figure C1-2.**



**Figure C1-2 Evacuation Routes and Assembly Areas**



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**RAI J-4.**

No COLA changes have been identified as a result of this subpart response.

**RAI J-5.**

A new sentence will be added to the end of the third paragraph in COLA Part 5, Section J.10.e in a future COLA revision, as shown below:

Many assumptions exist in dose assessment calculations, involving both source term and meteorological factors, which make computer predictions over long distances suspect. **Field Monitoring Teams, dispatched by FPL, are utilized to track the plume and verify or provide information to adjust the offsite dose estimates provided by the dose assessment computer projections.**

**ASSOCIATED ENCLOSURES:**

None

**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-10 (eRAI 5681)**

**SITE-11: Radiological Exposure Control**

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(11), NUREG-0654 Evaluation Criteria K.3.b and K.5.a]

**RAI K-1**

COLA Part 5 Section K.3, "Personnel Monitoring," states that emergency worker dose records are maintained by the Radiation Protection Manager (as appropriate) in accordance with the emergency and radiological protection procedures. Emergency Plan Appendix 3, "Procedure Cross-Reference to the Emergency Plan," does not list an implementing procedure that addresses this Emergency Plan section (e.g., K.3.b). Identify the implementing procedure and revise the Emergency Plan to include its reference or description, or explain why this is not required.

**FPL RESPONSE:**

FPL tracks and regulates the exposure of personnel during an emergency and implements ALARA principles throughout the emergency response and recovery activity. Personnel monitoring for the in-plant personnel including security officers is monitored and regulated by the Operations Support Center (OSC) Staff. The record of their exposures are evaluated and documented in the OSC Activation and Operation procedure. Exposure information for personnel outside of the Protected Area, such as field monitoring teams, are tracked and regulated by the protective measures personnel in the Emergency Operations Facility (EOF). When the emergency is terminated and the exposure records from the response activities are compiled, the dose information will be recorded in the individual's radiological exposure records maintained by FPL. FPL will make an addition to Appendix 3, Procedure Cross-Reference to the Emergency Plan indicating that Section K.3 of the Emergency Plan is implemented in both the OSC Activation and Operation and the EOF Activation and Operation Implementing Procedures.

This response is PLANT SPECIFIC.

**References:**

None

**ASSOCIATED COLA REVISIONS:**

The "Procedure Cross-Reference to the Emergency Plan" table in COLA Part 5, Appendix 3 will be revision in a future COLA revision, as shown below:

**Procedure Cross-Reference to the Emergency Plan**

<b>Implementing Procedure</b>	<b>Plan Section Implemented</b>
Emergency Classification	B; D.1; D.2; I.1; Annex 1, Section 3; Annex 2, Section 3; Annex 3, Section 3



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Notifications/Communications	A.2; B.4; D.1, E; F
Protective Action Recommendations	B.4; D.1; E.2; E.4; J
Dose Assessment Methodology	I.4
Core Damage Assessment	I
TSC Activation and Operation	A; B.5: D.1; F.1; H
OSC Activation and Operation	A; B.5; D.1; F.1; H; <b>K.3</b> , Annex 1, Section 4; Annex 2, Section 4; Annex 3, Section 4
EOF Activation and Operation	A; B.5; D.1; F.1; H; <b>K.3</b>
Emergency News Center Activation and Operation	A; B.5; D.1; G.3; G.4; H
Evacuation and Accountability	J.4; J.5; Annexes 1, 2, 3, Section 5.1
Offsite Radiological Monitoring	I; J.3; K.5
Medical Response	L
Reentry and Recovery	M
<b>Administrative Procedures</b>	<b>Plan Section Implemented</b>
Maintaining Emergency Preparedness	P
Emergency Response Facilities & Equipment	H; Annex 1, Section 4; Annex 2, Section 4; Annex 3, Section 4
Drills & Exercises	N
Radiological Emergency Response Training	O
Public Education and Information	G
Emergency Response Directory	P

**ASSOCIATED ENCLOSURES:**

None



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**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-11 (eRAI 5681)**

**SITE-14: Exercises and Drills**

[Basis: 10 CFR 52.47(a)(21), 10 CFR 50.47(b)(14), Section IV.E.9(b) of Appendix E to 10 CFR Part 50]

**RAI N-1**

Describe in the Emergency Plan the testing frequency for the Emergency Response Data System (ERDS)

**FPL RESPONSE:**

**RAI N-1**

FPL will revise the Emergency Plan to address the requirement in Section IV.E.9(b) of Appendix E to 10 CFR Part 50 and will include in Section N.2.a a quarterly drill for the activation and testing of the Emergency Response Data System (ERDS) to ensure that there is a capability to transfer data to the NRC.

This response is PLANT SPECIFIC.

**References:**

None

**ASSOCIATED COLA REVISIONS:**

**RAI N-1**

A new bulleted statement will be added between the first and last bullet of COLA Part 5, Section N.2.a in a future COLA revision, as shown below:

- Monthly: (1) Communication between the Control Rooms, TSC, EOF state and county warning points and EOCs shall be tested. (2) Communication between the Control Rooms, TSC, and EOF to the NRC Operations Center shall be tested using the Emergency Notification System (ENS).
- **Quarterly: Emergency Response Data System (ERDS) will be activated and tested to ensure capability for data to be transferred to the NRC.**
- Annually: (1) Communications between Turkey Point and the state and local EOCs and Field Monitoring Teams shall be tested. (2) Communications between the Control Rooms, TSC, EOF, and ENC shall be tested. Communications between the Turkey Point emergency response facilities and the appropriate offsite response organizations shall be tested during annual drills and include the aspect of understanding the content of messages.

**ASSOCIATED ENCLOSURES:**

None

Proposed Turkey Point Units 6 and 7  
Docket Nos. 52-040 and 52-041  
FPL Response to NRC RAI No. 13.03-13 (eRAI 5681)  
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**NRC RAI Letter No. PTN-RAI-LTR-035**

**SRP Section: 13.03 – Emergency Planning**

Question from Licensing and Inspection Branch

**NRC RAI Number: 13.03-13 (eRAI 5681)**

**SITE-16**

Responsibility for Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans. [Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(16), NUREG-0654 Evaluation Criteria P.6 and P.9]

**RAI P-1**

COLA Part 5 Section P.6, "Supporting Emergency Response Plans," contains a listing of supporting plans. Add the appropriate county supporting plans to the list of supporting plans.

**FPL RESPONSE:**

**RAI P-1**

FPL will revise Emergency Plan Section P.6 to include the appropriate county emergency response plans that support PTN emergency response:

- Turkey Point Response Plan, Miami-Dade County Florida
- Radiological Emergency Preparedness Plan, Monroe County, Florida

This response is PLANT SPECIFIC.

**References:**

None

**ASSOCIATED COLA REVISIONS:**

**RAI P-1**

Two new bullets will be added to COLA Part 5, Section P.6 in a future COLA revision, as shown below:

Other plans that support this Emergency Plan are:

- NUREG-0728, *NRC Incident Response Plan*
- National Response Framework
- State of Florida Radiological Emergency Management Plan, Appendix II, Turkey Point Nuclear Power Plant Site Plan
- **Turkey Point Response Plan, Miami-Dade County, Florida**
- **Radiological Emergency Preparedness Plan, Monroe County, Florida**
- Interagency Radiological Assistance Plan
- DOE, Region 3, *Radiological Assistance Plan*
- INPO Emergency Resources Manual
- Turkey Point Physical Security Plan

**ASSOCIATED ENCLOSURES:**

None