

## **PMTurkeyCOLPEm Resource**

---

**From:** Comar, Manny  
**Sent:** Tuesday, April 12, 2011 4:05 PM  
**To:** orthen, Richard; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher  
**Cc:** Comar, Manny  
**Subject:** Draft RAI 5679 related to SRP Section 13.03 - Emergency Planning for the Turkey Point Units 6 and 7 combined license application.  
**Attachments:** draft RAI 5679\_TPN.doc

To All,

Attached is the draft of RAI No:5679, regarding section 13.03- Emergency Planning for the Turkey Point Units 6 and 7 combined license application.

If you need a conference call to discuss the question(s) of the draft RAIs please contact me at 301-415-3863. Unless you request additional clarification we will normally issue the RAI as final within 3 to 5 days, from today.

Thanks

Manny Comar  
Senior Project Manager  
NRO/DNRL/NWE1  
Nuclear Regulatory Commission  
301-415-3863  
<mailto:manny.comar@nrc.gov>

**Hearing Identifier:** TurkeyPoint\_COL\_Public  
**Email Number:** 300

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D063F95AE7E5)

**Subject:** Draft RAI 5679 related to SRP Section 13.03 - Emergency Planning for the Turkey Point Units 6 and 7 combined license application.  
**Sent Date:** 4/12/2011 4:04:35 PM  
**Received Date:** 4/12/2011 4:04:37 PM  
**From:** Comar, Manny

**Created By:** Manny.Comar@nrc.gov

**Recipients:**

"Comar, Manny" <Manny.Comar@nrc.gov>  
Tracking Status: None  
"orthen, Richard" <richard.orthen@fpl.com>  
Tracking Status: None  
"Steve Franzone" <steve.Franzone@fpl.com>  
Tracking Status: None  
"STEVEN.HAMRICK" <steven.hamrick@fpl.com>  
Tracking Status: None  
"TurkeyCOL Resource" <TurkeyCOL.Resource@nrc.gov>  
Tracking Status: None  
"William Maher" <William.maher@fpl.com>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	578	4/12/2011 4:04:37 PM
draft RAI 5679_TPN.doc		43002

**Options**

**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

Request for Additional Information No. 5679

Turkey Point Units 6 and 7  
Florida P and L  
Docket No. 52-040 and 52-041  
SRP Section: 13.03 - Emergency Planning  
Application Section: Part 5: Emergency Planning

QUESTIONS from Licensing and Inspection Branch (NSIR/DPR/LIB) (EP)

13.03-\*\*\*

**ETE-1: Introductory Materials Related to the ETE Report**

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Section IV of Appendix E to 10 CFR Part 50, Section I of Appendix 4 to NUREG-0654.

Section 2.3, "Study Assumptions," Item 6 states that there is no expectation that operation of traffic control points will materially shorten evacuation times. However, Appendix I, "Evacuation Sensitivity Studies," shows in the sensitivity study for Special Traffic Treatments, that traffic control reduces evacuation times by as much as 1 hour and 50 minutes. Discuss why an evacuation time estimate was not developed that considers implementation of the traffic control plan for the EPZ.

13.03-\*\*\*

**ETE-2: Demand Estimation**

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Section IV of Appendix E to 10 CFR Part 50, Section II of Appendix 4 to NUREG-0654.

- A. Figure 3-2, "Permanent Residents by Sector," in the ETE Report shows one person residing within 3 miles in the north sector. The Turkey Point Units 6 and 7 Environmental Report Table 2.5-1, "Current Populations and Projections, by Sector, to 2080," shows a projected 2010 population of 4,293 residents in the 0 to 3 mile sector to the north of the plant. Explain which estimate is correct and revise the ETE Report as needed.
- B. Figure 3-2, "Permanent Residents by Sector," in the ETE Report shows 6,447 people residing in the west sector within 10 miles of the plant. The Turkey Point Units 6 and 7 Environmental Report Table 2.5-1, "Current Populations and Projections, by Sector, to 2080," shows a projected 2010 population of 10,243 residents in the west sector within 10 miles of the plant. Explain which estimate is correct, and revise the ETE Report as needed.
- C. Figure 3-2, "Permanent Residents by Sector," shows a 2009 projected population of 187,374 residents distributed within the EPZ. The Turkey Point Units 6 and 7 Environmental Report Table 2.5-1, "Current Populations and Projections, by Sector, to 2080," shows a projected 2010 total 0 to 10 mile population of 130,994 residents. Discuss in the ETE Report the difference between the ETE Report value of 187,374 residents and the Environmental Report value of 130,994 residents.

- D. Discuss in the ETE Report whether the evacuees from Homestead Air Reserve Base were considered part of the transient or permanent resident population. Revise the trip generation distributions, if necessary.
- E. Section 3.2, "Transient Population," states that there are approximately 400 people and 70 vehicles estimated visiting Biscayne National Park. This corresponds to 5.7 people per vehicle. Explain in the ETE Report why the ratio of persons per vehicle for this national park is significantly higher than 2-3 persons per vehicle, which is normally observed.
- F. Section 3.3, "Employees," states that the employment for each municipality was divided evenly among the major employers. Discuss in the ETE Report the basis for evenly distributing the total employment within a municipality.
- G. Appendix E, "Special Facility Data," provides a detailed listing of employees by facility in Table E-2, "Turkey Point EPZ: Major Employers." Explain in the ETE Report whether the total employees identified in Table E-2 is the total number per shift or the total number of employees.
- H. In Table E-2, "Turkey Point EPZ: Major Employers," four employers have 2,422 employees. One of these employers is Lowe's, which is similar in business type to Home Depot, which has 194 employees identified in Table E-2. Explain in the ETE Report why these four employers have the same number of employees and explain why Lowe's would have a considerably different number of employees than similar business types.
- I. The Homestead-Miami Speedway Track calendar lists numerous smaller events held weekly at the track, and these events attract thousands of visitors. Explain why the speedway is not included in Section 3.2, "Transients," or revise the ETE to include the speedway transients.
- J. Figure 21, "Turkey Point Warning Sirens," in the Miami-Dade County, "Florida Comprehensive Emergency Management Plan" shows that there are no sirens in this area where part of the Regatta is held. Describe in the ETE Report the notification and evacuation assumptions used for large boating events such as the Columbus Day Regatta, and explain how the times needed to notify and evacuate this population were addressed in the ETE Report.
- K. The ocean and Keys east of Turkey Point are popular transient locations providing recreational activities such as snorkeling and camping. Discuss in the ETE Report the notification and evacuation assumptions for people who will be evacuating from these recreational areas, and explain how the times needed to notify and evacuate this population were addressed in the ETE Report.
- L. Coconut Palm K-8 Academy, Goulds Elementary, and Mandarin Lakes K-8 Academy are located in plume exposure pathway EPZ. Explain why these three schools are not included in Table 8-2A, "Miami-Dade County Public Schools," or revise the ETE Report to include these schools.
- M. The Academy at Ocean Reef, is a private school located in Area 10 of the EPZ. Explain why this school is not included in Table 8-2B, "Miami-Dade County Private Charter Schools," or include in the ETE Report, as appropriate.
- N. Section 8.1, "Transit Dependent People – Demand Estimate," describes the process and assumptions for the evacuation of the transit dependent population. Identify in the ETE Report the number of special needs transit dependent people that require assistance to evacuate and the number of specialized vehicles needed to evacuate this population.

13.03-\*\*\*

### **ETE-3: Traffic Capacity**

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Section IV of Appendix E to 10 CFR Part 50, Section III Appendix 4 to NUREG-0654.

- A. Section 1.3, "Preliminary Analysis," states that an annotated map is provided in electronic format for review at a large scale; however, the map was not included. Provide an annotated map of the nodal network as identified in Section 1.3.
- B. Appendix I, "Sensitivity Study," states that Figure H-2 shows the locations of the traffic control points and the special traffic control treatments. Explain whether the reference to Figure H-2 should be to Figure I-2 and correct other references in Appendix I, if necessary.
- C. Appendix I, "Sensitivity Study," describes two special traffic treatments that can reduce the ETE by as much as 2 hours. Explain in the ETE Report whether these traffic treatments were discussed with local authorities and whether authorities agreed to use these treatments during an evacuation.
- D. Section 3.6, "Pass-Through Demand," states that traffic traveling into the EPZ will be diverted at 90 minutes; however, Figure G-3, "Turkey Point Nuclear Power Plant Access Control Points (Sheet 1 of 12)," does not show an Access Control Point for diverting northbound traffic traveling into the EPZ. Explain in the ETE Report why an Access Control Point is not needed for northbound U.S. Highway 1 traffic and whether these northbound vehicles are included as pass through traffic throughout the evacuation.
- E. Table K-1, "Evacuation Roadway Network Characteristics," includes the upstream and downstream node numbers for each segment, with most segments identified as having 1, 2 or 3 lanes in a single direction. Nodes 4 to 10, 6 to 5, and 10 to 440 show four full lanes in one direction which could indicate high traffic capacity segments. In the ETE Report, identify the location of these 4 lane segments within the roadway network.
- F. Table K-1 identifies the segments between nodes 4 to 10 and 10 to 440 as having 4 lanes and a 70 mph free flow speed and lists the free flow speed of the 4 lane segment from node 6 to node 5 as 45 mph. Explain why the free flow speed from node 6 to node 5 is 45 mph when the free flow speed for the other 4 lane roadway segments is 70 mph.
- G. Table K-1 shows node 439 to 442 has 5 full lanes in one direction. In the ETE Report, identify the location of the 5 lane roadway segment in the roadway network.

13.03-\*\*\*

### **ETE-4: Analysis of Evacuation Times**

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Section IV of Appendix E to 10 CFR Part 50, Section IV of Appendix 4 to NUREG-0654.

- A. Appendix I, "Sensitivity Study," states that several races occur at the racing facility. Table I-2, "NASCAR ETE Sensitivity," identifies the ETE for the largest NASCAR event as 12 hours and 50 minutes if evacuation is ordered at the same time as evacuation for the EPZ population. **Explain why the raceway event in Appendix I, "Sensitivity Study," is not identified as the 'Special' event in Table 2-1, "Evacuation Scenario Definitions," and in Tables 7-1D, "Time to**

**Clear the Indicated Area of 100 Percent of the Affected Population,” or include this as the special event scenario.**

- B. Table 8-2B, “Miami-Dade County Private and Charter Schools,” lists 5,420 students and 61 required bus runs. Section 8.2, “School Population – Transit Demand,” states that it is assumed students at private and charter schools are picked up by their parents and states this activity is included in the trip generation time. **Explain in the ETE Report how the 61 required bus runs in Table 8-2B were factored into the analysis, when these students were assumed to be picked up by their parents.**
- C. Table E-7, “Turkey Point EPZ: Miami-Dade County Correctional Facilities,” identifies the Dade Juvenile Residential Facility with 55 inmates and a capacity of 56 inmates. **In the ETE Report, provide an ETE for the correctional facility which should include the time to mobilize any specialized vehicles or trained drivers.**

13.03-\*\*\*

**ETE-5: Other Requirements**

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Section IV of Appendix E to 10 CFR Part 50, Section V of Appendix 4 to NUREG-0654.

- A. The Executive Summary, “Traffic Management,” states that the comprehensive traffic management plan was reviewed with state and local law enforcement personnel. However, Appendix G, “Traffic Management,” states that the traffic management plan should be reviewed by state and local police. Discuss this inconsistency and revise the ETE Report as necessary. Also, Section 2.3, “Study Assumptions,” Item 11 states that it is assumed the northbound lane of the Miami-Dade Busway is used as an evacuation lane for the general public. Has state and local law enforcement agreed to establish this busway as an evacuation lane during an emergency? If no agreement has been established, revise the ETE Report accordingly.
- B. Discuss whether the ETE Report has been reviewed by principal State and local organizations involved in emergency response for the site and whether comments received have been addressed.