

LeeRAIsPEm Resource

From: Brian Anderson
Sent: Thursday, September 25, 2008 5:46 PM
To: LeeRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO SRP SECTION 13.3 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE APPLICATION
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Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO
SRP SECTION 13.3 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE
APPLICATION

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September 26, 2008

Mr. Peter S. Hastings, P.E.
Licensing Manager, Nuclear Plant Development
Duke Energy
526 South Church Street
Charlotte, NC 28201-1006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO
SRP SECTION 13.3 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2
COMBINED LICENSE APPLICATION

Dear Mr. Hastings:

By letter dated December 12, 2007, as supplemented by letters dated January 28, 2008, February 6, 2008 and February 8, 2008, Duke Energy submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Brian Hughes, the lead project manager for the William States Lee III combined license at 301-415-6582.

Sincerely,

/RA/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

eRAI Tracking No. 50

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Brian Hughes, the lead project manager for the William States Lee III combined license at 301-415-6582.

Sincerely,

/RA/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

eRAI Tracking No. 50

Enclosure:
Request for Additional Information

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NRO-002

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NAME	KWilliams*	BAnderson*	SBrock*	BHughes*
DATE	8/5/08	8/8/08	8/29/08	9/26/08

*Approval captured electronically in the electronic RAI system.

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**Request for Additional Information
William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 13.03 - Emergency Planning
Application Section: 13.3-2**

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

RAIs ETE-1 through ETE-53 address the September 12, 2007, Evacuation Time Estimate report (KLD TR-407) (ETE) prepared by KLD Associates, Inc. An executive summary of the ETE is included in Appendix 4 to Part 5 (Emergency Plan) of the COL application, with the full report included as supplemental information to the emergency plan. Please provide the following information regarding the ETE. (Regulatory Basis: 10 CFR 52.79(a)(21), Section IV of Appendix E to 10 CFR Part 50)

13.03-1

ETE-1

Population is presented in the ETE as of the year 2007, extrapolated from the 2000 census using regression analysis on County-specific projections. The population is shown to have grown 7.4% in 7 years. The impacts of future population growth are not considered. However, for the “construction” scenario 12, Table 6-4, “Vehicle Estimates by Scenario,” indicates that the populations have been extrapolated to 2011 to coincide with peak construction employment. The populations presented in the ETE for the year 2007 appear to differ from those presented in the Lee ER and FSAR. However, the values in ER Table 2.5-1 and 2.5- 2, “The Projected Permanent Population for Each Sector 0 – 16 km,” for the year 2007 are not the same as shown in ER Figures 2.5-1 and 2.5-2, “Population Sector Map 0-16 km and 16-80 km”. The ER text in Section 2.5.1.1, “Population Distribution,” indicates that the figures “display area-weighted 2007 population estimates.” Identify which estimate is correct, and clarify why there is a difference. Describe how population growth beyond 2008 was considered.

13.03-2

ETE-2

In the Executive Summary, Tables 7-1C, “Time to Clear the Indicated Area of 95% of the Affected Population,” and 7-1D, “Time to Clear the Indicated Area of 100% of the Affected Population,” are described as the times needed to clear the indicated regions of the population. Clarify whether that these tables include schools, transit dependents, and special facilities.

13.03-3

ETE-3

The Executive Summary and Appendix G, “Traffic Management Plan” state that the Traffic Management Plan has been reviewed by local authorities (and expressed concerns over manpower and equipment shortages in an earlier version), but no information was provided on whether or not the county or state officials concurred with the traffic control point arrangements in the ETE. Clarify if the State and local police who reviewed the document have agreed and understand the priority of traffic control placement.

13.03-4

ETE-4

Section 1-2, "Lee Nuclear Station Site Location," states that Fig 1-1, "Lee Site Location," identifies communities in the area. However, communities in the EPZ do not appear to be identified. The Environmental Report (page 1.1-2) does mention unincorporated communities of Smyrna and Hickory Grove in York County, and Cherokee Falls 2.6 miles NW in Cherokee County. Please clarify.

13.03-5

ETE-5

Planning Element J.10a and Appendix 4, Section 1-a in NUREG 0654 calls for a topographical map which by definition should include elevations. No information on elevation or land formation, other than water body locations, is provided. Provide a detailed map of the 10-mile plume exposure pathway EPZ, which identifies transportation networks, topographical features (including elevations), and political boundaries.

13.03-6

ETE-6

Section 2.1 (2) "Data Estimates," states that population estimates at special facilities are based on available data from county emergency management offices. A review of publicly available information indicates that there may be additional facilities in the area including the J. Claude Fort Community Residence; Magnolias of Gaffney Assisted Living, and others. Discuss whether any other sources of data were used in identifying special facilities. If necessary, identify changes to the ETE that may occur if additional facilities, not in the current listing in Appendix E, "Special Facility Data," must be added.

13.03-7

ETE-7

a. Regarding Section 2.2, "Study Methodology Assumptions," Assumption #5. Discuss whether 100% of the population is considered when calculating the ETEs for the 10 mile EPZ or if 35% is used between the 5 and 10 mile ring as indicated in Figure 2-1.

b. Section 2.3, "Study Assumptions," Assumption #2, states that it is assumed that everyone within the group of ERPA forming a Region will evacuate. ERPAs extend to 10 miles from the plant. However, Figure 2-1, "Voluntary Evacuation Methodology," indicates that the area to be evacuated 100% extends to 5 miles from the plant. Clarify whether 100% of the people out to 10 miles are included in the ETE calculation. If so, Figure 2-1, "Voluntary Evacuation Methodology," may need to be modified to be representative of the evacuation assumptions.

13.03-8

ETE-8

Section 2.3, "Study Assumptions," Assumption #3a states that schools may be evacuated prior to notification of the general public. Notification will take place in 10 minutes with mobilization of buses within 90 minutes. Discuss the basis of the assumption including describing the "experience" used to establish the mobilization time.

13.03-9

ETE-9

Section 2.3, "Study Assumptions," Assumption #7 states that traffic control point numbers and locations depend on personnel resources and region being evacuated. Discuss whether this variable is considered in the ETE calculations and if so, what is the affect if they are not properly staffed?

13.03-10

ETE-10

Section 4, "Estimation of Highway Capacity":

a. Explain how the "Capacity Estimate on Approaches to Intersections" equation on page 4-2 is affected by traffic control at intersections. Discuss if the modeling addresses traffic through intersections considering traffic control or the equation presented.

b. Discuss the assumptions and inputs for the nodes and segments with respect to the field survey.

c. The definition of F on page 4-2 is defined as various known factors influencing h_m . Identify the important F factors for the turn movement h_m .

13.03-11

ETE-11

Table 6.4, "Vehicle Estimate by Scenario" presents the number of vehicles modeled for each scenario. Discuss whether Table 6.4 represents the total number of vehicles for a full EPZ evacuation and whether the numbers are different for each of the Regions.

13.03-12

ETE-12

The routes for individuals requiring public transit are identified in Chapter 8, "Transit-Dependent and Special Facility Evacuation Estimates," but there is no mention of how transit dependent individuals get from their residence to these bus routes. Annex Q, "Fixed Nuclear Facility," of the Cherokee County EOP indicates that people may call in for assistance and will be scheduled for pick-up. "*Walk to the nearest public school if it is within one-half mile. If you live over one-half mile from a public school, you should contact the Cherokee County Emergency Management Agency for assistance.*" School buses will then be used to transport these individuals to the reception centers.

a. Discuss if the ETE developed for school in session includes consideration that the same buses will be used to evacuate transit dependent individuals.

b. If the same buses are used, explain the effect on the ETE for the transit dependent residents under this scenario.

c. Discuss if the bus routes on Figure 8-2, "Proposed Transit Dependent Bus Routes," pass by schools to pick up residents.

d. Page 7-4 states that summer implies that school is not in session, but Tables 6-3, "Percent of Population Groups for Various Scenarios," and 6-4, "Vehicle Estimates by Scenario," show 10% of school buses evacuating in Scenarios 1 and 2, and 37 buses on the road for scenarios 1 and 2 (summer mid-week mid-day) and also for scenarios 9 and 10 (winter weekend mid-day). Discuss why 10% of the school buses are planned for use in Scenarios 1 and 2 which are summer and in Scenarios 9 and 10, which are winter weekend. From where are students being evacuated?

e. Regarding Table 8-7A, "Transit Dependent Evacuation Time Estimates – Good Weather," explain how the inbound bus speed was derived. These buses would be traveling through traffic control points that have been established to prevent pass through traffic. Discuss if this has been considered in the travel speed?

f. Provide a basis for using 30 minutes for pick up time in Table 8-7A “Transit Dependent Evacuation Time Estimates – Good Weather,” and Table 8-7B, “Transit Dependent Evacuation time Estimates – Rain.”

13.03-13

ETE-13

In Figure 3-2, “Permanent Residents by Sector,” and Figure 3-3, “Permanent Resident Vehicles by Sector,” explain what is meant by the note: “3 miles to EPZ Boundary”.

13.03-14

ETE 14

For Table 6-4, “Vehicle Estimates by Scenario,” discuss the basis for the number of shadow evacuation vehicles. Explain why the shadow evacuee number of vehicles did not increase for the projected 2011 population whereas the other populations (vehicles) projected to this year did increase.

13.03-15

ETE 15

In Table 8-1, “Transit Dependent Population Estimates”, the transit dependent population definition does not include any individuals with special needs. The South Carolina Radiological Emergency Response Plan, IV, (B)(6)(h) states that transportation will be provided to residents who are homebound and require special transportation. Provide information to support that there are no transit dependent special needs individuals who would require medical support during an evacuation or include appropriate details in the ETE to address this population group.

13.03-16

ETE 16

Figure 8-2, “Proposed Transit Dependent Bus Routes,” provides the transit dependent bus routes. Explain why the colors in the legend do not align with the colors in the map for each route.

13.03-17

ETE 17

Discuss why Table 8-7B, “Transit Dependent Evacuation time Estimates – Rain,” was developed for the transit dependent adverse weather condition when ‘ice’ was identified in Section 2, “Study Estimates and Assumptions,” page 2-6, as the more limiting adverse weather condition. Discuss whether using ice for the adverse weather would increase the ETEs provided in Table 8-7B.

13.03-18

ETE 18

It appears many of the bus routes in Figure 8-2, “Proposed Transit Dependent Bus Routes,” are through Gaffney, which Figures 7-3 thru 7-5, “Areas of Traffic Congestion after the Advisory to Evacuate” indicate would have level of service (LOS) F during this timeframe. Discuss how these buses can travel at more than 20 mph through LOS F conditions.

13.03-19

ETE 19

Explain the assumptions used for the time to return to the EPZ in Tables 8-7A, “Transit-Dependent Evacuation Time Estimate-Good Weather,” and 8-7B, “Transit-Dependent Evacuation Time Estimate-Rain.”

13.03-20

ETE 20

Transient population estimates include hotels/motels, outlets, and Kings Mountain parks. The primary locations of transients are the outlets in Gaffney and the Kings Mountain Park. The Environmental Report Section 2.3, “Water,” indicates Cherokee Ford Recreation Area 0.5 miles north; ER Section 2.2, “Land,” indicates 7 parks and 2 campgrounds in Gaffney. There is a boat launch site just upstream of 99 Islands Dam; Figure 3.4, “Transient Population by Sector,” indicates zero transients in this sector. Discuss whether these areas need to be included in the transient population estimates.

13.03-21

ETE 21

ER Section 2.5-1, “Demography,” discusses special events, such as the Gaffney Peach Festival (2500 persons) and the Christmas on Limestone (~2000 persons). The Ed Brown Rodeo has an attendance of more than 20,000 in Blacksburg each year. The special event selected is the Unit 2 reactor construction peak. The ETE uses a football game in Gaffney at 13,000 persons as a sensitivity analysis – this is only in Appendix I, and not mentioned in Section 3. The construction peak is not discussed except in a footnote to Table 6-4, “Vehicle Estimate by Scenario”.

- a. Identify the effect on the ETE of Peak Tourist volumes listed here, or other events, that might be identified through research, that may have greater peak tourist volumes.
- b. Regarding Section 2.2, “Land,” Assumption #6, discuss why there are no special events listed and why peak tourist populations are not included.

13.03-22

ETE 22

The number of routine employees at Lee is estimated to be 750. ER Section 5.8.1.3 “Physical Impacts on Station Operation - Roads,” indicates that the site will employ 1000. Discuss the difference in the number of on-site employees at any one time?

13.03-23

ETE-23

Section 8, “Transit-Dependent and Special Facility Evacuation Time Estimates,” page 8-1 states that transit service may be needed for residents, employees, and transients. Discuss how employees and transients are factored into needing transit service.

13.03-24

ETE 24

Discuss the reasoning behind transients not returning to their “residence” prior to evacuation. For those in hotels, they may return to gather their belongings. Discuss how this would affect the time for the transient population to evacuate.

13.03-25

ETE 25

Section 8, "Transit-Dependent and Special Facility Evacuation Time Estimates," covers the transit dependent population and special facilities. This section also includes information on school enrollment at 22 schools, evacuation procedures, and the number of buses required for the evacuation of each school. There are 10 preschools, 2 nursing homes, 1 jail, and one hospital within the EPZ. Table 8-4, "Special Facility Transit Demand," does not include all of the special facilities included in Appendix E, "Special Facility Data," such as the day care centers and the County Corrections Center.

- a. Explain why these facilities are not included in the special facility transit demand analysis.
- b. Explain how the inmates at the correctional center are dealt with.
- c. If necessary, provide information to support the evacuation time for these additional facilities and discuss the effect these may have on the ETEs provided.
- d. Table 8-2, "School Population Demand Estimates," (and Table E-2, "Lee EPZ Schools") lists 22 schools, but there are only 21 school reception areas in Table 8-3, "Assumed School Reception Centers." Where do the 13 buses from Limestone College go?

13.03-26

ETE-26

Table 8-4, "Special Facility-Transit Demands," does not appear to include all of the special facilities within the EPZ. Discuss why the J. Claude Fort Community Residence; Magnolias of Gaffney Assisted Living; and others were not included in the table. Explain any effect on the ETE if additional facilities are included in the ETE calculation.

13.03-27

ETE-27

Section 2.3, "Study Assumptions," Assumption 7b, indicates that medical facilities are required to have adequate emergency transportation for all residents, and that buses are provided through private contracting. Are these buses included in the ETE traffic? Is the 50% ride-share applied to the medical facility populations?

13.03-28

ETE-28

Table 8-2, "School Population Demand Estimates," indicates approximately 200 buses are needed to support the school evacuation. The ETE provided in Table 8-5A, "School Evacuation Time Estimates-Good Weather," and Table 8-5B, "School Evacuation Time Estimates-Rain," indicates one bus run. No information is provided to support that there are enough buses available to evacuate all schools simultaneously. Section 8-4, "Evacuation Time Estimates for Transit-Dependent-People, (page 8-4) states that if the impacted region is other than R3, there will likely be ample transit resources. It appears that R22 would impact all of the schools in Gaffney and Blacksburg and R21 would possibly affect these schools as well.

- a. Provide information to support that there are enough buses available to evacuate all schools simultaneously and begin the bus routes for transit dependent residents?
- b. If there are not enough buses to complete these activities concurrently, explain any effect on the ETE if multiple bus trips must be made.

13.03-29

ETE-29

The values in Table 8-4, "Special Facility Transit Demand," do not sum to the value in the table. The capacity of the three facilities listed sums to 402, but the value listed in the table is 277. Explain the difference in values.

13.03-30

ETE-30

Table 8-4, "Special Facility Transit-Demand," indicates that 20 ambulance runs are required. Explain whether this value will increase if additional facilities are included. Identify the assumptions on mobilization time, number of available ambulances, loading time, etc., to support a determination of number of waves needed. Discuss any impact on the ETE.

13.03-31

ETE 31

In Table 8-5A, "School Evacuation Time Estimates Good Weather," the speed of the outbound school buses is approximately 20 mph. The speed is discussed in Section 8.3 (page 8-5) and use of the model output is an excellent approach for establishing speeds. However, Figures 7-3 thru 7-5 "Areas of Traffic Congestion after Advisory to Evacuate" would indicate a level of service of F for many roadways during this timeframe. It may not be appropriate to use average speeds. Explain why the average speed for the evacuation was used rather than the speeds that would exist during this timeframe for the evacuation.

13.03-32

ETE 32

Special facilities are identified in Table 8-4, "Special Facility Transit Demand," and discussed in Section 8.3, "Special Facility Demand," and in Appendix E, "Special Facility Data," on an individual basis. Tables with names, address, direction from the Lee Station, distance in miles, and populations are also provided; a map is not provided. Include a map of special facilities within the EPZ.

13.03-33

ETE 33

Figures 7-3 through 7-6, "Areas of Traffic Congestion" as referenced in Section 7.3, "General Population Evacuation Time Estimates," are said to imply that evacuation is a continuous process; this is not obvious from the figures. Section 7.3 states that Figure 7.7, "Evacuation Time Estimates for WSL Summer, Midweek, Midday, Good Weather Evacuation of Region 03 (Entire EPZ)" indicates that there is a "long tail" in the rate at which traffic flows out of the indicated area; the idea may be correct but the figure does not show this. Provide additional explanation or a figure that does show the indicated information.

13.03-34

ETE 34

Discuss how the traffic management plan discussed in Section 9, "Traffic Management Strategy," and detailed in Appendix G, "Traffic Management Plan," was integrated into the ETE calculation. Was the ETE provided in Table 7-1D, "Time to Clear the Indicated Area of 100% of the Affected Population," calculated based upon these controls being in place?

13.03-35

ETE-35

Section 9, "Traffic Management Strategy," explains the importance of establishing traffic control in a prioritized manner; a Traffic Management Strategy is included in the plan in Section 9. The implementation of this strategy including access control points and traffic control points are included in Appendix G, "Traffic Management Plan". It is not clear how these strategies affect the ETEs or if they are even used in the calculation of evacuation estimates. Assumption #7 in Section 2.3, "Study Assumptions," states the traffic control points are resources and area dependent, but no overall effect is given. Explain any effect on the ETE if traffic control is not placed in the prioritized manner.

13.03-36

ETE-36

The existing node network on Figure 1-2, "Lee Link-Node Analysis Network," is significantly different than the evacuation network in Figure 10-2 thru 10-5, "Evacuation Route Map for Quadrants of the EPZ". It is not clear how the evacuation map was used in developing the nodal network, or vice versa. Also, the congestion patterns shown in Section 7, "General Population Evacuation Time Estimates," Figures 7-3 through 7-6, "Areas of Traffic Congestion 1-4 Hours after Advisory to Evacuate," indicate that traffic is backed up on roads that are not part of the indicated Evacuation Routes. Explain the connection between the Evacuation Routes and the node network.

13.03-37

ETE-37

Section 10, "Evacuation Routes," indicates that the evacuation routes should contain a component related to "routing of evacuees from the EPZ boundary to reception centers." The routes in Figures 10-2 through 10-5, "Evacuation Route Maps," end immediately outside of the EPZ 10-mile ring. It is not apparent that the evaluation considered traffic backup as far as the proposed reception centers in Spartanburg, Shelby, Gastonia, and Rock Hill. Would funneling of traffic, at least to the city limits if the exact Relocation Center sites are not known, impact the ETE?

13.03-38

ETE-38

Provide a legible map that includes the nodes identified on Figure 1-2, "Lee Link-Node Analysis Network," and in Appendix K, "Evacuation Roadway Network Characteristics." The nodes must be annotated to support the review. A larger scale is necessary. Provide a roadway map that includes the sector and quadrant boundaries.

13.03-39

ETE-39

Section 2.1 (3), "Study Estimates and Assumptions-Data Estimates," of the ETE states that roadway capacity was estimated for each segment based on the field surveys and on the Highway Capacity Manual 2000 (HCM). Section 4, "Estimation of Highway Capacity," (pg. 4-5) states the 2 lane roadway capacity is 1700 pc/hr as identified in Chapter 20 of the HCM. The HCM identifies these capacities for 'ideal conditions' which include physical and operational conditions. Chapter 20 of the HCM does identify 1700 pc/hr as the capacity of a 2 lane roadway when the roadway meets the Base Conditions of Chapter 12 such as 12 foot lane widths and 6 foot shoulders. Operational conditions would include

such items as time spent following other vehicles. Clarify if the field survey confirmed that lane widths meet the conditions for 'ideal'. Discuss the operational considerations applied to the roadway capacity estimate. If necessary, explain the affect on the ETE if the capacity is determined to be lower than the value used.

13.03-40

ETE-40

Section 4, "Estimation of Highway Capacity," (page 4-4) states "based on empirical data collected on freeways, we have employed a value of $R=0.85$ ". Provide additional information, such as a reference, for the basis of this empirical data. Was the R factor applied only to the Interstate 85 or was it also applied to the rural roads of the EPZ. Explain the basis for applying this factor to other than freeways.

13.03-41

ETE-41

Section 3, "Demand Estimation," (page 3-15) indicates that 300 vehicles per lane for major routes and 150 vehicles per lane for minor routes are on the roadway, traveling through for a total of 6,300 vehicles.

- a. Explain the calculation including number of lanes assessed such that 300 and 150 vehicles become 6,300 vehicles.
- b. Is Floyd Baker Boulevard in Gaffney included in the estimate of through traffic?
- c. Discuss if additional vehicles need to be added to Table 6-4, "Vehicle Estimates by Scenario".

13.03-42

ETE-42

Regarding "shadow evacuation:

- a. For the shadow evacuation values used in Table 6-4, "Vehicle Estimates by Scenario," provide the assumptions with regard to trip generation times and loading of the transportation network.
- b. For Appendix I, "Evacuation Sensitivity Studies", provide population values for the percent shadow evacuation in Table I-2, "Evacuation Time Estimates for Shadow Sensitivity Study".
- c. In Table I-3, "Evacuation Time Estimates for Trip Generation Sensitivity Study," explain how the 30% increase of vehicles was distributed throughout the EPZ. Was this uniform or based on the current population densities?
- d. Provide the basis for the population used to calculate the shadow evacuation vehicles identified in Table 6-4, "Vehicle Estimates by Scenario."

13.03-43

ETE-43

Section 4, "Estimation of Highway Capacity," describes the modeling of intersections and states on page 4-1 that critical intersections will often be provided by traffic control personnel. Explain how are intersections that are controlled by traffic personnel modeled? Explain any assumptions on traffic speed, service flow, capacity, and queue discharge through a manned intersection.

13.03-44

ETE-44

Discuss where voluntary evacuation population within EPZ as shown on Figure 2-1, "Voluntary Evacuation Methodology," (not the shadow evacuation as defined in Section 2.2, "Study Methodology

Assumptions”) is allocated within Table 6-3, “Percent of Population Groups for Various Scenarios,” and Table 6-4, “Vehicle Estimates by Scenario.”

13.03-45

ETE-45

It appears the analysis may include truncated distributions:

a. The longest evacuation time for 100% of the ETE is 4 hours 50 minutes in Table 7-1D, “Time to Clear the Indicated Area of 100% of the Affected Population.” This is based on the distributions in Section 5. The distribution in Section 5 for “Time to Prepare Home for Evacuation” is 135 minutes; however, Figure F-11, “Time to Prepare Home for Evacuation” in Appendix F, Telephone Survey, indicates that 360 minutes, or 6 hours is the time for 100% of the population to “prepare to evacuate”. Explain how the maximum evacuation time for 100% of the public was calculated using the data from Figure F-11.

b. Table 5-3, “Time Distribution for Employees to Leave Work,” identifies 100% of the employees having left at 90 minutes. However, Figure F-9, “Time to Prepare to Leave Work/School,” indicates that the tail of the curve may go out to 150 minutes. Explain how 90 minutes was derived for Table 5-3. Discuss any effects on the ETE if the time is 150 minutes as indicated in Appendix F.

c. Table 5-4, “Time Distribution for Commuters to Return Home,” identifies 100% of the population returning home in 75 minutes. However, Appendix F, Telephone Survey, page F-9, states that nearly all individuals travel home in 90 minutes. Figure F-10, “Work to Home Travel Time,” indicates that the tail may go out to 150 minutes. Explain if the 100% ETE identified in Table 7-1D, “Time to Clear the Indicated Area of 100% of the Affected Population,” includes these tail values or if the tails were truncated for the tables in Section 5.

d. Table 5-5, “Time Distribution of Population Ready to Evacuate,” identifies 100% of the population ready to evacuate in 135 minutes. Appendix F, page F-10, states that 90% are ready in 1.5 hours and that the remaining population (100%) is ready in 3.5 hours. However, the tail in Figure F-11, “Time to Prepare Home for Evacuation,” indicates this could take as long as 6 hours. Discuss if the values in Table 5-5 were truncated.

e. In Figure 5-2, “Evacuation Mobilization Activities,” the time to prepare home is identified as approximately 140 minutes, however Appendix F, page F-10, would indicate this should be a minimum of 210 minutes and may be as long as 360 minutes. Explain why Figure 5-2 indicates 140 minutes. If necessary, reconcile Figure 5-2 with the comments above on other tables in Section 5.

f. If necessary, reconcile Figure 5-3, “Comparison of Trip Generation Distributions” and Table 5-8, “Trip Generation for the EPZ Population,” with the comments on other tables in Section 5.

13.03-46

ETE-46

For the trip generation time events and activities in Figure 5-1, “Events and Activities Preceding the Evacuation Trip,” it appears that for scenarios (b) and (d), the assumption is 100% of the public is at home when the sirens sound. These scenarios correspond to weekend, midday, summer and evening, non-summer. The “trip generation time distribution” of Figure 5-3, “100% of Residents with Commuters,” is about 230 minutes (3 hours and 50 minutes) [a similar result is given in Table 5-8]. Many of the ETE results presented in Table 7-1D, “Time to Clear The Indicated Area of 100 Percent of the Affected Population,” are between 3:00 and 3:50 – these are all for weekend scenarios; Table 6-3, “Percent of Population Groups for Various Scenarios,” indicates that 10% of households have commuters even on weekends. Explain the basis for not having a ‘prepare to leave activity’ and ‘travel home’ sequence for these scenarios.

13.03-47

ETE-47

For the trip generation time Table 5-3, “Time Distribution for Employees to Leave Work,” and Table 5-4 “Time Distribution for Commuters to Return Home,” in Section 5, there is a note that states the survey data was normalized to the “Don’t Know” response. Provide additional information to explain the normalization process.

13.03-48

ETE-48

Patterns of traffic congestion are discussed in Section 7.2, “Patterns of Traffic Congestion During Evacuation”. Congestion is expected to peak at 2 hours following evacuation and will begin to dissipate in most areas after the third hour. Figures 7-3 through 7-6, “Areas of Traffic Congestion 1-4 Hours After Advisory to Evacuate,” illustrate the patterns of traffic congestion that arise for the case when the entire EPZ (Region R03) is advised to evacuate during the summer, weekend, midday period under good weather conditions (Scenario 3). The maps show congested areas in red and absence of congestion in white but delay times are not indicated. Provide additional information on delay times.

13.03-49

ETE-49

In Table 7-1C, “Time to Clear the Indicated Area of 95% of the Affected Population,” there is a difference in evacuation time between normal and adverse weather. For the Regional Evacuation Table in the South Carolina Radiological Emergency Response Plan, there is a difference between normal and adverse weather for R03 of about 30 minutes. In Table 7-1D, “Time to Clear the Indicated Area of 100% of the Affected Population,” there is no such difference – except for a 20 minute difference for the Ice condition. Discuss why adverse weather does not affect the total evacuation time for the 100% evacuation.

13.03-50

ETE-50

Section 12, “Confirmation Time,” addresses the time needed to confirm that the evacuation process is effective, i.e., the public is complying with the advisory to evacuate. Please address the following questions:

a. On page 12-1 it states that “[a]lthough the counties within the EPZ may use their own procedures for confirmation, we suggest an alternative or complementary approach.” This statement suggests that the confirmation process and times discussed in Section 12, “Confirmation Time,” are an alternative for other that may be specific to the counties. It is unclear whether the counties have agreed with the (ETE) plan – or even if other county plans exist for confirmation of evacuation. Discuss whether the counties have agreed with the ETE plans for confirmation of evacuation, including the existence of other county plans. If other county plans exist, discuss how they would work with the ETE plan.

b. On page 12-1, it states that “[s]hould the number of telephone responses (i.e., people still at home) exceed 20 percent, then the telephone survey should be repeated after an hour’s interval until the confirmation process is completed.” Explain what is required if the telephone survey response is less than 20%, but still significant.

c. The estimate of the time needed to confirm that the evacuation is complete is 8.5 person hours. Discuss if the time required to mobilize the personnel needed to confirm the evacuation has been included in the time estimate. This would include the time and resources needed to obtain telephone numbers for the EPZ which are necessary prior to beginning the telephone survey. Discuss if the time

and resources needed to obtain telephone numbers for the EPZ, which are necessary prior to beginning the telephone survey, is included. Provide an estimate of the time needed to confirm that the evacuation is complete.

13.03-51

ETE-51

The report discusses intelligent transportation systems (ITS), dynamic message signs, and highway advisory radio in Section 9, "Traffic Management Strategy". It is not clear if the use of such systems was considered in the ETE or if the results are dependent upon their use. Appendix G, "Traffic Management Plan," provides traffic control tactics for traffic control points, which have been developed in conjunction with the county emergency management representatives and law enforcement personnel. Section 1.3, "Analytical Tools," page 1-8, states that the analyst can identify bottlenecks and develop countermeasures that are designed to expedite the movement of vehicles. Were any such adjustments integrated into the traffic management plan? Identify any adjustments that were made to expedite the movement of vehicles and improve evacuation times.

13.03-52

ETE-52

In Appendix E, "Special Facility Data," does the "staff" number include those listed as faculty as well as administrative, custodial, food service and adult volunteers on site during the school day? During an evacuation of special facilities, all adult "staff" should evacuate with the special population on the allocated busses and not permitted to leave on their own. Section 8.2, "School Population-Transit Demand," indicates "Those staff members who do not accompany the students will evacuate in their private vehicles." Is this a policy of the school district or local emergency plans? Review and revise the tables of Appendix E, "Special Facility Data," to include all staff assigned to each school, day care, medical facility and nursing home and the correction facility that would accompany the respective evacuating special population and address if these additional numbers will impact on the numbers of busses required to move this population group.

13.03-53

ETE-53

Appendix G, "Traffic Management Plan," refers to Table G-1 that summarizes the Traffic Control Points and the manpower and equipment needs. Explain why Table G-1, "*Tile Unknown*" was not included in the ETE submission.

13.03-54

SITE-1: Assignment of Primary Responsibilities for Emergency Response

Basis: 10 CFR 50, Appendix E.IV.A.8; NUREG-0654/FEMA-REP-1, Evaluation Criterion A.1.c.; Evaluation Criterion A.3

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

A. Section II.A, "Assignment of Responsibility (Organizational Control)", of the Lee Emergency Plan (pages II-1/11) defines assignment of responsibility. However, the Plan does not give the title of officials responsible for planning, ordering and controlling protective actions. Provide, by title, the State and/or local officials that will be responsible for implementing offsite protective actions.

B. Section II.A.1.c, "Organizational Interrelationships" (page II-8), of the Lee Emergency Plan contains a block diagram illustrating the interrelationships of all organizations participating in emergency response [Figure II-1 "Emergency Response Organization Interrelationships" (page II-9)]. The diagram does not show specific State and local agencies. The relationships are only shown by organization and not by position or title. The diagram does not make clear how organizations interact with each other. Provide the specific positions or titles that will interact during an emergency.

C. Appendix 7, "Certification Letters" (page A7-1), of the Lee Emergency Plan contains copies of the certification letters established between Duke Energy, State, local government agencies, and private sector organizations that will be supporting the emergency response effort. The actual agreement letters will not be available until later in the process. Clarify when the Letters of Agreement will be available.

13.03-55

SITE-2: Onsite Emergency Response Organization Assignments

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

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

A. Section II.B, "On-Site Emergency Organization", Table II-2 "Plant Staff Emergency Functions" (pages II-19/20), of the Lee Emergency Plan includes several positions that do not have sufficient detail to determine that the correct individual is assigned to the functional area. There is no position identified to address the following activities: accountability, decontamination and public information. Define who the communicator will be under the functional area for notification and communications. Define who will be the Emergency Operations Facility (EOF) Senior Manager under the functional area for radiological accident assessment. Provide information on which position and functional area will be responsible for accountability, decontamination and public information.

B. Lee Final Safety Analysis Report (FSAR), Table 13.1- 201, "Plant Management Organization" (no page #), provides generic titles and functions provided. Figure II-2, "Emergency Response Organization – Site Only" (page II-17) and Figure II-3, "Off-Site Emergency Response Organization" (page II-18), in the Lee Emergency Plan show the high level organizations that will be located in the Emergency Response Facilities (ERFs), but there are no details of the actual functions and titles of staff that will be located in these blocks on the diagrams. It is not possible from these figures to determine if all functions in the ERFs are adequately covered. Provide additional detail on functions and titles of staff assigned to the ERF positions.

C. Section II.B (page II-12) of the Lee Plan states that the Unit Supervisor on shift assumes the Emergency Coordinator position until relieved by a qualified member of management if the Operations Shift Manager is unable to fulfill the duties and responsibilities for any reason. A trained, higher level member of Duke Energy management may assume Emergency Coordinator responsibilities from the Operations Shift Manager after becoming familiar with plant and radiological conditions, status of emergency response/accident mitigation efforts, and determining that the ERFs are staffed adequately enough for them to perform the designated Emergency Coordinator functions. Describe the reasons why or situations where a higher level of Duke Energy management might take over from the Shift Manager.

D. Figure II-3, "Lee Nuclear Station Offsite Emergency Response Organization" (page II-18), of the Lee Emergency Plan is a diagram of the EOF organization however the specific job titles are not available

to evaluate whether staffing is adequate. Additional information on staffing of the EOF is said to be described in Emergency Plan Implementing Procedures (EPIPs) but not provided. Provide additional information on the organization of the EOF that will be included in the EPIPs.

E. Section II.B.8, "Support from Contractor and Private Organizations" (pages II-15/16), of the Lee Emergency Plan identifies information on the principal organizations in the private sector that are part of the overall response organization. Section II.B.9, "Local Emergency Response Support", (page II-16) of the Lee Emergency Plan identifies that Duke Energy has established and maintains agreements for local emergency response support services, including firefighting, rescue squad, medical and hospital services. However, only four specific organizations identified as "principle" are listed. Generic references are made to the architect/engineering firm, reactor supplier and other consultants and vendors that could be contacted. Provide the names of the designated engineering/technical services support firms and other consultants and vendors, as well as the supporting memorandum of understanding/memorandum of agreements (MOUs/MOAs) that might be requested to provide support during an emergency or determine if an Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) is needed.

F. Subsection 5, "Plant Emergency Response Staff," of Section II.B, "On-site Emergency Organization," states that the minimum emergency response staffing in Table II-2, "Plant Staff Emergency Functions," of the Lee Emergency Plan is based upon guidance provided in Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies," of NUREG-0654. In addition, the justification provided in Subsection 5 states that the 75 minute goal for emergency response staff augmentation is consistent with those implemented for existing Duke Energy nuclear facilities. However, Table B-1 identifies the need for a capability for additional staff within 30 and 60 minutes while Table II-2 of the Lee Emergency Plan identifies a capability for additional staff within 75 minutes. Provide a justification for extending the augmentation times.

G. Table II-2, "Plant Staff Emergency Functions," in the Lee Emergency Plan indicates that the STA will perform the technical support tasks on shift at all times. However, footnote 1 states that shift staffing may vary with one or more units in cold shutdown or refueling mode as provided in FSAR Table 13.1-202, "Minimum On-duty Operations Shift Organization for Two-unit Plant." Note (1) in Table 13.1-202 states that the shift manager or another SRO on shift may also serve as the STA. The footnote also states that the combined SRO/STA position is addressed as Option 1 in NRC Generic Letter 86-04, "Policy Statement on Engineering Expertise on Shift." Discuss how the individual filling the SRO/STA combined position can handle the response tasks expected to be performed by an SRO and an STA during an emergency and specify the applicable mode ensuring that this emergency response function is staffed in all operating modes.

H. Table II-2, "Plant Staff Emergency Functions," in the Lee Emergency Plan indicates that there will be one health physics/chemistry technician and one individual with senior radiation protection expertise on shift at all times. However, footnote (4) states that a radiation protection technician need only be on site when there is fuel in a reactor and footnote (5) states that a chemistry technician needs to be on site during plant operation in modes other than shutdown and refueling as provided in FSAR Table 13.1-202, "Minimum On-duty Operations Shift Organization for Two-unit Plant." In light of the staffing levels specified in Table II-2, discuss how/why the emergency response functions are filled for all operating modes.

I. Table II-2, "Plant Staff Emergency Functions," in the Lee Emergency Plan indicates that there will be two non-licensed operators (NLOs) on each shift, whereas FSAR Table 13.1-202, "Minimum On-duty Operations Shift Organization for Two-unit Plant" identifies a minimum number for NLOs as three. Discuss the rationale for not having three NLOs in Table II-2.

J. Table II-2, "Plant Staff Emergency Functions," in the Lee Emergency Plan states in footnote 2 that for each unaffected unit in operation, maintain one Control Room Supervisor, one Reactor Operator, and one Non-licensed Operator. FSAR Table 13.1-202, "Minimum On-duty Operations Shift Organization for Two-unit Plant" shows that with one unit in operation eight individuals are needed on-duty. Discuss what functions the remaining eight individuals at the unaffected unit will perform in the event of an emergency at the other unit.

K. Staff augmentation methodology is required per 10 CFR 50.47(b)(2), with additional guidance and information provided in NUREG-0654 and NEI-99-01, Revision 4, Sections 3.12, "Classifying Transient Events," and 3.13, "Operating Mode Applicability." In footnote 3 on page II-2 of the Lee Emergency Plan deviations from staff augmentation are discussed, which appear to allow latitude to not augment the staff in some cases. Explain how the actions represented by this footnote satisfy acceptable or appropriate precautionary actions in accordance with regulations, and guidance.

L. The terms "operational" and "activated" are not defined in the Lee Emergency Plan, but have specific relevance regarding emergency response facility functional capabilities. Define these terms in regard to facility functional capabilities. Discuss EOF, TSC and OSC activation, operation, full operation time capabilities with respect to staffing levels.

M. Dose assessment capability and use in determination for radiological protective action decision-making is required per 10 CFR 50.47(b)(9), and is further described in guidance in NUREG-0654; however it is not clear that function is assigned to on-shift or early response personnel. This specific functional capability discussion does not appear to be consistently described in the Lee Emergency Plan, (for example, pages II-10 and II-19). On-shift capability for dose assessment in the determination of emergency classification, on-site protective action, and offsite protective action recommendations does not appear to be specifically addressed. Provide additional information on the specific emergency responder assignments for dose assessment on-shift, and how on-shift and augmented staff functional assignments for this activity meet or exceed NUREG-0654 augmentation guidance, as you commit on page II-12.

N. On Table II-1, "Responsibility for Emergency Response Functions," on page II-10 of the Lee Emergency Plan, emergency response functions are not consistently described as a comparison to NUREG-0654 functional capabilities. For example, functions for firefighting, rescue, and security are missing from the table, but appear under functional capabilities in Table II-2, "Plant Staff Emergency Functions," on page II-19. Additionally, some functional capabilities listed in Table II-1 in relation to facility and classification do not appear to agree with Table II-2 functional capabilities based on personnel availability. Provide information on how these two tables describe a consistent description for functional capabilities.

O. Section II.B.1, "On-site Emergency Organization," of the Lee Emergency Plan does not appear to agree with the on-shift personnel availability or functional capabilities described in Table II-2, "Plant Staff Emergency Functions." Provide information on how the narrative in Section B.1 applies to personnel assignments and capabilities listed in Table II-2.

P. Table II-2, "Plant Staff Emergency Functions," describes the proposed staff augmentation capabilities for listed emergency functions.

P.1. Discuss how specifically the on-shift/per unit personnel numbers would be assigned without collateral duty assignments. Of specific interest include the repair and corrective action and radiation protection functions. Identify the total number of personnel that are not assigned collateral duties.

P.2. Describe how a 75 minute timeliness to fulfill the dose assessment function is in accordance with regulations and meets or exceeds NUREG-0654 guidance.

P.3. Though implied, the Lee Emergency Plan should state whether activation time clock initiates upon declaration of the emergency classification or some other initiator.

Q. Appendix 2, "Radiological Monitoring and Assessment," to the Lee Emergency Plan does not describe the emergency response facilities (including the control room) where the capability to perform dose assessment resides. Provide additional information on where this capability exists and align other references in the emergency plan, in tables such as Tables II-1 and II-2).

13.03-56

SITE-3: Requesting, Using and Accommodating Emergency Response Support Resources
Basis: 10 CFR 50.47(b)(3); Planning Standard C; NUREG-0654/FEMA-REP-1; Evaluation Criterion C.1.a; Evaluation Criterion C.1.b; Evaluation Criterion C.3, Evaluation Criterion C.4
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1 and 18

A. Section II.C, "Emergency Response Support and Resources" (pages II-21/22), of the Lee Emergency Plan, describes arrangements for Federal emergency response support and resources. Discuss when the Federal Assets [Federal Coordination Agency, DOE Radiological Assistance Program, and Radiation Emergency Assistance Center/Training Site (REAC/TS)] will be requested.

B. Section II.A.1.b., "Concept of Operations" (page II-8), of the Lee Emergency Plan references the National Response Plan, rather than the National Response Framework (NRF) which has now been implemented. Reference the NRF in the Lee Nuclear Station Emergency Plan.

C. Section II.C.3, "Radiological Laboratories" (pages II-21/22), of the Lee Emergency Plan identifies mobile monitoring and assessment capabilities in addition to fixed facilities for gross counting and spectral analysis. There is no additional detail on the location and abilities of the fixed facilities. The Lee Emergency Plan also states that other Duke Energy facilities at McGuire, Oconee, and Catawba could provide additional support within 1-4 hours, but the criteria for when the support would be requested or how it would be requested is not included. Discuss the location and capabilities for the fixed radiological facilities located at the Lee Nuclear Station site; and how the request will be initiated.

D. Section II.C.4, "Other Supporting Organizations" (page II-22), of the Lee Emergency Plan identifies additional emergency response support from: Institute on Nuclear Power Operations (INPO) Fixed Nuclear Facility Voluntary Assistance Agreement signatories, and REAC/TS. No letters of agreement were found for INPO or REAC/TS. (Note: Section II.A.1.b (page II-8) states that "...responsibilities of many Federal agencies is established in the National Response Plan and therefore no certification letters are required..."). Provide letters of agreement or other appropriate supporting documentation related to the emergency assistance provided by INPO and REAC/TS.

E. Subsection 1.a, "Federal Response Capability," of Section II.C "Emergency Response Support and Resources" states: "The EOF Director or Radiological Assessment Manager may request FRMAC assistance directly or through the NRC (Federal Coordinating Agency)." However, requesting federal

assets such as the FRMAC should be coordinated through the state based on the situation, and other factors such as a state and federal disaster declaration or similar action. If there is no disaster declaration the NRC, as the Coordinating Agency under the Nuclear /Radiological Incident Annex of the National Response Framework, would contact DOE. The decision to deploy the FRMAC is coordinated between DOE and FEMA. Discuss whether paragraph subsection C.1.a should be revised, and if not, why.

13.03-57

SITE-4: Emergency Classification System

Regulatory Basis: 10 CFR 50.47(b)(4) and Sections IV.B. and C. of Appendix E to 10 CFR Part 50.

Reference: NUREG-0654/FEMA-REP-1 Evaluation Criterion D.1

SRP ACCEPTANCE CRITERIA: Requirement 2; Acceptance Criterion 3

A. Section II.D, "Emergency Classification System," of the Lee Emergency Plan states that the initiating conditions include the conditions provided in NEI 07-01, Rev. 0, "Methodology for Development of Emergency Action Levels, Advanced Passive Light Water Reactors" (NEI 07-01). However, NEI 07-01 was submitted for NRC review and endorsement in March 2008, and currently remains under review by the NRC staff. Emergency Action Levels (EALs) and initiating conditions (ICs), based upon the September 2007 draft of NEI 07-01, are included in the Lee Emergency Plan as Appendix 1, "Emergency Action Levels." Since NEI 07-01 has not been endorsed by the NRC, the staff cannot cross-check EAL Recognition Categories (RCs) and Initiating Conditions (ICs) as referenced. Remove this reference from all submitted emergency planning information, or justify why it should be retained.

B. The Letters of Certification with state and local governments that are included in Appendix 7, "Certification Letters," of the Lee Emergency Plan state that the signature on the letter indicates that the parties concurred with the emergency classification system, initiating conditions, and emergency action levels for the Lee Nuclear Station. EALs and initiating conditions, based upon the September 2007 draft of NEI 07-01, are included in the Lee Emergency Plan as Appendix 1, "Emergency Action Levels." However, NEI 07-01, "Methodology for Development of Emergency Action Levels, Advanced Passive Light Water Reactors," Rev. 0, has not been endorsed by the NRC. Discuss when the final version of the initial emergency action levels will be discussed with, and agreed upon, with state and local governmental authorities.

C. Discuss when the content of subsection 5.3, "Site-specific Implementation," in Section 5.0, "Emergency Action Levels," of Appendix 1 to the Lee Emergency Plan will be provided. Will an ITAAC or License Condition be developed to track the submittal of this information?

13.03-58

SITE-5: Activation and Notification Processes

Basis: 10 CFR 50.47(b)(5); 10 CFR 50, Appendix E.IV.C; 10 CFR 50, Appendix E.IV.D.1; NUREG-0654/FEMA-REP-1; Evaluation Criterion E.2; Evaluation Criterion E.3; Evaluation Criterion E.4; Evaluation Criterion E.7

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1, 2 and 6

A. Section II.E, "Notification Methods and Procedures" (page II-25), of the Lee Emergency Plan is unclear. The first sentence of the second paragraph states that elected local officials are responsible for off-site radiological emergency response. The fourth sentence indicates that the State agency providing direction and control initiates action to.....provide guidance and assistance to local governments. Paragraph three states that the Lee Nuclear Station will communicate with the affected

counties who can then activate their EOC's. It is not clear how the counties are being notified. Clarify the notification process(es) to the State and counties detailing how effective and timely implementation of protective actions is achieved if the licensee is not communicating directly with the local governments.

B. Section II.E, "Notification Methods and Procedures" (pages II-25/28), of the Lee Emergency Plan outlines communication procedures, mobilization, message content (see State plans for content), and follow-up messages, however, it does not address the administrative or physical means for notifying local, State and Federal officials and agencies. The Lee Emergency Plan only provides a list of warning points notified that does not include a list of officials by title and agency located in the Emergency Planning Zones (EPZs). Provide the local governments and position titles that will be notified by the Lee Nuclear Station when a radiological emergency occurs at the plant. Describe the procedure for and physical means for making notifications to offsite agencies.

C. The Lee Emergency Plan does not include potentially affected areas and populations as listed in the Guidance in NUREG-0654, FEMA-REP-1, Evaluation Criterion E.3. There is no mention of a notification form. Provide additional description of the notification forms.

D. Section II.E.4, "Follow-up Messages to Off-site Authorities" (page II-27), of the Lee Emergency Plan states that there are dedicated communications for continuous communication allowing regular updates. However, the Lee Emergency Plan does not provide any detail on where the communication system is located or who provides the communication. Provide information identifying the communicators and where they will be located during an emergency.

E. Section II.E.7, "Written Messages to the Public" (page II-27), of the Lee Emergency Plan states that Duke Energy will assist with the development of the messages, but does not identify who will assist and in what EPIP the procedure for providing assistance will be located. Provide details on how the supporting information for written messages to the public will be provided. Discuss what position in the ERO will provide this assistance.

13.03-59

SITE-6: Communication Processes

Basis: 10 CFR 50, Appendix E.IV.E.9; 10 CFR 50, Appendix E.IV.E.9.b; 10 CFR 50, Appendix E.IV.E.9.c; 10 CFR 50, Appendix E.IV.E.9.d; NUREG-0654/FEMA-REP-1; Evaluation Criterion F.1.a; Evaluation Criterion F.1.c; Evaluation Criterion F.1.d; Evaluation Criterion F.3.

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

A. Section II.F.3, "Communication System Reliability" (page II-31), of the Lee Emergency Plan states that failure of normal power supplies does not impact offsite communications because, in most cases, backup power is provided. Discuss how the communications will be maintained and what instances that the communications will be lost and what compensatory measures will be in place.

B. Section II.F, "Emergency Communications" (pages II-29/31), of the Lee Emergency Plan provides communication system descriptions but does not identify communication between the licensee and Federal emergency response organizations other than Nuclear Regulatory Commission (NRC). Provide information regarding communications between the licensee and Federal emergency response organizations other than NRC.

C. Section II.N.2.a, "Communications Drills" (page II-61), of the Lee Emergency Plan states, "Duke Energy tests communications with Federal emergency response organizations and States within the

EPZ (Emergency Planning Zone)..... quarterly.” This does not meet the monthly requirement. Clarify the testing frequency from the licensee to the NRC Headquarters and the appropriate NRC Regional Office Operations Center.

D. Section II. F, “Emergency Communications” (page II-29), of the Lee Emergency Plan states that responsibilities of designated personnel for the communication systems can be found in State and local plans and in the Emergency Plan Implementing Procedures (EPIPS). Provide information on who is designated to use communication systems and what responsibilities they have for using those communication systems.

13.03-60

SITE-7: Distribution of Public Information

Basis: 10 CFR 50.47(b)(7); 10 CFR 50, Appendix E.IV.D.2; NUREG-0654/FEMA-REP-1; Evaluation Criterion G.1; Evaluation Criterion G.2; Evaluation Criterion G.4.b

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

A. Section II.G, “Public Education and Information” (page II-32), of the Lee Emergency Plan states that Duke Energy commits to coordinating with the State and local authorities to disseminate information to the public on responding to a radiological emergency at the Lee Nuclear Station site. The Lee Emergency Plan does not state who is responsible for the actions that Duke Energy will take or what they will actually do to coordinate and assist the State and locals. Section II.G.2, “Distribution and Maintenance of Public Information” (page II-32), gives a list of how written information may be provided to permanent residences and transient populations, but it does not provide sufficient detail to determine if the dissemination of material is sufficient to meet the regulations and guidance. Additionally, the Lee Plan does not address who will be responsible for creating the material and having the material disseminated. Provide information on who at Duke Energy will be responsible for coordinating with the State and local authorities and what responsibilities this individual will have. In addition, provide more specific information on how the public information will be distributed and who is responsible for creating and distributing the material. Describe how the information planned to be distributed to the public addresses how they will be notified in an emergency. In addition to providing information related to special needs of the handicapped, describe how the information planned to be distributed to the public addresses information for individuals whose mobility may be impaired, such as those without transportation, in nursing homes, in day care centers, etc. Discuss the method that will be used to advise parents, relatives, and neighbors not to pick up their children at school prior to arrival of the buses.

B. Section II.G.4.b, “(Information Exchange)” (page II-33), of the Lee Emergency Plan states that liaisons coordinate with licensee and designated members of the State and local emergency response organizations on a periodic basis. Appendix 9, “Justification for Common EOF (Emergency Operations Facility)” (page A9-3) states “State and utility staff at the Joint Information Center (JIC) are responsible for providing timely and accurate information concerning an emergency to the media.” However, there is no explanation of how timely and accurate information is provided to the media. Discuss the timely exchanges of information and identification of designated spokespersons and details on how timely and accurate information is provided to the media during an emergency.

13.03-61

Site 8: Emergency Facilities and Equipment

Basis: 10 CFR 50.47(b)(8); 10 CFR 50, Appendix E.IV.E.2; Appendix E.IV.E.3; Appendix E.IV.E.4; Appendix E.IV.E.8; Appendix E.IV.G; 10 CFR 52.79(a)(17), Three Mile Island Requirements; 10 CFR

50, Appendix E.VI Emergency Response Data System; Appendix E.VI. Maintaining Emergency Response Data System; Appendix E.VI Implementing the Emergency Response Data System Program; NUREG-0654/FEMA-REP-1; Evaluation Criterion H.1; Evaluation Criterion H.4; Evaluation Criterion H.5; Evaluation Criterion H.6; Evaluation Criterion H.8; Evaluation Criterion H.9; Evaluation Criterion H.10; Evaluation Criterion H.11

SRP ACCEPTANCE CRITERIA: Requirements A, B and E; Acceptance Criteria 1, 2, 4, 5, 12, 25, 26, 27, 28, 29

A. Section II.H.1, "(On-Site Emergency Response Facilities)" (page II-35), of the Lee Emergency Plan contains the statement: "in the event that all off-site AC power is unavailable, the TSC (Technical Support Center) could be evacuated and ...function transferred to a location unaffected..." A description of the procedure and locations to be considered is not provided. Section II.H.1 (page 35) also contains the statement: Implementing procedures make provisions for the relocation of the OSC (Operations Support Center) as needed..." The information supporting this statement is not provided. Provide detailed information regarding the relocation of the TSC and the OSC when off-site AC power is unavailable or they become uninhabitable.

B. Section II.H.10, "Emergency Equipment and Supplies" (page II-39), of the Lee Emergency Plan states that Duke Energy performs inspections and operational test of emergency equipment once each calendar quarter. Procedures to review audit and update the emergency plan are covered in section II.P.4, "Plan Reviews and Updates" (II-67/68). The Lee Emergency Plan is to be reviewed and updated on an annual basis. Implementing procedures are discussed in Section II.P.7, "Implementing Procedures" (page II-69) and Appendix 5, "Implementing Procedures" (pages A5-1/2). Procedure for these processes are said to be provided in the implementing procedures but are not in the Lee Emergency Plan. Discuss the procedures used to inspect and test dedicated emergency equipment.

C. Lee Nuclear Station DCD Tier 2, Chapter 7, "Instrumentation and Controls", Section 7.7, "Control and Instrumentation Systems (pages 7.7-1/25), discusses most of the systems parameters. Meteorological data parameters transmitted are discussed in Chapter 2, "Site Characteristics", Section 2.3.3, "Onsite Meteorological Measurement Programs" (pages 2.3-26/32), of the FSAR and II.H.8, "Meteorological Instrumentation and Procedures" (page II-36), of the Lee Emergency Plan. Radiation Monitoring is discussed in the Lee Nuclear Station DCD, Tier 2, Chapter 11, "Radioactive Waste Management", Section 11.5, "Radiation Monitoring" (pages 11.5-1/29) and Section II.I.2, "Plant Monitoring Systems" (page II-40) of the Lee Emergency Plan. Containment parameter monitoring is discussed in Section 7, of the DCD. Description of area radiation monitors and there locations can be found in Lee DCD Tier 1, Chapter 3, "Non-System Based Design Descriptions and ITAAC", Section 3.5, "Radiation Monitoring" (page 3.5-1/8). Provide additional information on the data points transmitted for selected plant conditions. Verify that data points can be transmitted for reactor core and coolant system conditions; reactor containment conditions; radioactivity release rates; and plant meteorological tower data. Verify that a separate data feed will be provided for each reactor unit. If the Emergency Response Data System (ERDS) is to communicate with a safety system, verify that appropriate isolation devices will exist at these interfaces.

D.1 The Lee Emergency Plan, FSAR, or AP 1000 DCD, did not contain information on the transmission time of the ERDS. Verify that the system is capable of transmitting ERDS parameters in not more than 60 seconds or no less than 15 seconds.

D.2 The Lee Emergency Plan, FSAR, or AP 1000 DCD, did not contain information on the compatibility of the data transmission system with the Nuclear Regulatory Commission (NRC) receiving system. Verify that the link control and data transmission is established in a compatible format with NRC receiving equipment.

D.3 The Lee Emergency Plan, FSAR, or AP 1000 DCD, did not contain information on maintaining the ERDS. 1. Verify that any hardware or software changes that affect the transmitted data points identified in the ERDS Data Point Library will be submitted to the NRC within 30 days after the changes are completed. 2. Verify that Hardware and software changes that could affect the transmission format and computer communication protocol to the ERDS will be provided to the NRC at least 30 days prior to the modification.

D.4 The Lee Emergency Plan, FSAR, or AP 1000 DCD, did not contain information on implementing the ERDS Program. Verify that an ERDS implementation program plan has or will be submitted to the NRC.

E. Section II.H.8, "Meteorological Instrumentation and Procedures" (page II-38), of the Lee Emergency Plan discusses the on-site meteorological data collection system and states that the dosimeters are posted and collected in accordance with Table 1 of Revision 1 of the Branch Technical Position included with Generic Letter 79-65, "Environmental Monitoring for Direct Radiation". Locations of dosimeter and air sampler postings are in the Off-site Dose Calculation Manual (ODCM). Provide additional information on monitoring systems and the locations of dosimeters and air samplers that is available in the ODCM.

E.1. Section II.H.8, "Meteorological Instrumentation and Procedures" (page II-38), of the Lee Emergency Plan states that meteorological data is acquired from an on-site meteorological tower. The tower measures wind speeds, ambient temperatures, atmospheric stability, dew point, and precipitation. The meteorological monitoring program and climatology are described in the Lee FSAR Section 2.3. All measured data from on-site meteorological tower is available to the plant and ERF display systems. Meteorological data can also be obtained from the Catawba Nuclear Station and the National Weather Service in Greer, SC. Discuss the representativeness of the meteorological data from Catawba Nuclear Station and the National Weather Service in Greer, SC to the proposed Lee site.

F. Section II.H.1, "On-site Emergency Response Facilities" (page II-34/35), of the Lee Emergency Plan states the OSC provides resources for communication with the Control Room (CR) and TSC. Its primary function is to dispatch assessment, corrective action, and rescue personnel to plant locations. As part of the aforementioned departure from the Lee Nuclear Station DCD (WLS DEP 18.8-1) listed in Part 7, "Departures and Exemptions Requests" of the William States Lee III Nuclear Station COL Application, the OSC is being moved to the control support area (CSA) initially for the TSC. Section II-H.1 (page II-35) contains the statement: "Implementing procedures make provisions for the relocation of the OSC as needed..." The information supporting this statement is not provided. Communication is covered in sections II.E, "Notification Methods and Procedures" (pages II-25/28) and II.F, "Emergency Communications" (pages II-29/31); however the detail is not sufficient to determine that adequate communications are available in the OSC. Clarify how the facilities meet guidance for NUREG-0696" and the clarification in NUREG-0737, Supplement 1.

G. Appendix 6, (pages A6-1/2), of the Lee Emergency Plan states that there will be emergency equipment, but does not provide details to determine the adequacy of the equipment, who is responsible for the equipment, or information related to inventory and maintenance of the equipment. Additional information is necessary to determine the adequacy of this provides a description of the emergency equipment and supplies to be provided. Kit inventory is described which seems to include every category but the kits are not listed by general category. Provide additional information on emergency kit contents.

H. WSL DEP18.8-1 states that the Operational Support Center (OSC) location will be described in the applicant's emergency plan. In section H.1, "On-site Emergency Response Facilities," of the Lee Emergency Plan it states that the OSCs are located in the space designated in the AP 1000 DCD for the TSC. Section 1.2.5, "Annex Building," of the AP1000 DCD refers to the Annex Building as being as described in Figures 1.2-17 through 1.2-20. However, these figures are blank in Revision 16. Provide figure/drawing(s) of the location of the OSC in the Annex Building(s). This figure/drawing, or a similar one, should also be included in the Lee Emergency Plan.

I. Section II.H., "Emergency Facilities and Equipment," of the Lee Emergency Plan states that the TSC was designed to meet the intent of the guidance in NUREG-0696, "Functional Criteria for Emergency Response Facilities." Provide a summary of the information in the Lee Emergency Plan to describe how it meets the intent of the guidance in NUREG-0696. For example, explain how the following items from NUREG-0696 related to the TSC are addressed in the Lee Emergency Plan: (a) Address training of TSC staff to follow procedures; (b) Address management plans, facility staffing and task assignments of TSC personnel; (c) Provide a detail staffing plan for the TSC to address the overall management of licensee resources and the continuous evaluation and coordination of licensee activities during and after an accident; (d) Provide the TSC staff assignments to address that TSC management of licensee onsite and offsite radiological monitoring, to perform radiological evaluations, and to interface with offsite officials. Address if the personnel assigned to the TSC varies according to the emergency class; (e) Address procedures for and training of personnel to use the data systems and instrumentation and include limitations of instrumentation; (f) Address how TSC staff maintain proficiency (participation in drills); and (g) Address whether there are means for facsimile transmission capability between the EOF, TSC and NRC Operations Center.

J. In accordance with SRP Chapter 15.0.3, Section II D(3), the staff reviews whether the total calculated radiological consequences in the TSC for the postulated fission product releases fall within the exposure acceptance criteria specified in GDC 19 of 5 rem TEDE (0.05 Sv) for the duration of the design basis accidents (DBAs). Provide the radiological consequence analyses for the Lee TSC for the postulated DBAs. The DBAs are listed and evaluated in Chapter 15 of the certified AP1000 DCD, Revision 15 and in the AP1000 Design Certification Amendment Application (AP1000 DCD, Revision 16). The radiological analyses must include, but not limited to, the following parameters:

1. TSC ventilation air inlet and recirculation flow rates
2. HEPA filter and charcoal adsorber fission product removal efficiencies
3. TSC unfiltered air in-leakage rate
4. Atmospheric dispersion factors (χ/Q values) at TSC air intake
5. TSC occupancy factors
6. TSC free air volume
7. Occupant breathing rate
8. Description of the ventilation design

13.03-62

SITE-9: Plant Systems and Instrumentation

Basis: 10 CFR 50.47(b)(9); NUREG-0654/FEMA-REP-1; Evaluation Criterion I.1; Evaluation Criterion I.2; Evaluation Criterion I.3; Evaluation Criterion I.4; Evaluation Criterion I.5; Evaluation Criterion I.6; Evaluation Criterion I.7; Evaluation Criterion I.8; Evaluation Criterion I.10; Supplement 1 to NUREG-0737, Section 6.1.b. - Control Room; Post-accident sampling capability

SRP ACCEPTANCE CRITERIA: Requirements A, B and E; Acceptance Criteria 1, 3, 4, 5, 12, 25, 26, 27, 28, 29

A. The Lee Emergency Plan does not specifically call out Type A, B, etc. variables or reference Regulatory Guide 1.97. Discuss the Emergency Preparedness (EP)-related instrumentation found in the Control Room that is available for use in emergency classification and dose assessment.

B. Section II.H.8, "Meteorological Instrumentation and Procedures" (page II-38), of the Lee Emergency Plan and Chapter 2, "Site Characteristics", Section 2.3.3, "Onsite Meteorological Measurement Programs" (pages 2.3-26/32), of the Lee FSAR provides information on meteorological monitoring. The Lee Emergency Plan does not describe the operational distribution of meteorological data from the onsite data collection system. Provide a description of the meteorological data available in the Control Room.

C. Section II.H.8, "Meteorological Instrumentation and Procedures" (page II-38), of the Lee Emergency Plan states that meteorological data are also available from Catawba Nuclear Station and the National Weather Service (NWS) in Greer, SC. There is no discussion of the procedure for obtaining data from the NWS, the type of data to request, and interpretation of the data to make them appropriate for the Lee site and dose assessment methodologies. Describe the procedures involved in obtaining and using meteorological data from Catawba Nuclear Station and the National Weather Service.

D. Section II.I.3, "Determination of Source Term and Radiological Conditions" (page II-40), of the Lee Emergency Plan refers to Appendix 2, "Radiological Assessment and Monitoring" (pages A2-1/8), of the Lee Emergency Plan for descriptions of the means for relating various measured parameters, including containment radiation monitor reading, to the source term available for release within plant systems and effluent monitor readings to the magnitude of the release of radioactive materials. Appendix 2 describes the method of estimating source terms in very general terms using a combination of user input and monitoring data and the Raddose-V computer code. Describe the process used to estimate source terms which should include: 1) A list of procedures that cover the estimation of accident source terms (radionuclides and activities) and describe the contents of each procedure; 2) Identify who is responsible for making source term estimates at various stages of the event; 3) What assumptions are made related to the pathway from the reactor to the environment; 4) Discuss whether or not the assumptions include reduction of the source term to account for filters, sprays, or other safety; 5) Whether the source term estimates will be modified during the course of the event to account for changes in the release pathway; 6) How long it takes to obtain source term estimates; 7) How are source term estimates obtained in the event that the computer-based methods are not available.

E. Section II.I.4, "Relationship Between Effluent Monitor Reading and Exposure and Contamination Levels" (page II-40), of the Lee Emergency Plan introduces the dose assessment capability. Appendix 2, Section 3.0, "Conceptual Design Description: Atmospheric Transport and Diffusion Assessment" (pages A2-4/6), describe the dose assessment programs. Appendix 2, Sections 3.3, "Data Acquisition" (pages A2-4/5), 3.4, "Modeling" (pages A2-5/7), and 3.5 "Data Output" (pages A2-7/8), of the Lee Emergency Plan describe the method of estimating offsite exposures and contamination from monitoring readings and meteorological data using the Raddose-V computer code. It does not list specific procedures or describe backup methods. It is not clear that the method provides estimates of onsite exposures and contamination or that it is appropriate for making those estimates. Discuss the exposure and contamination level levels which should include: 1) A list procedures that cover the estimation onsite exposures and contamination and describe the contents of each procedure; 2) Identify who is responsible for making estimates of onsite exposures and contamination; 3) A List of procedures that cover the estimation offsite exposures and contamination and summarize the contents of each procedure; 4) Identify who is responsible for making estimates of offsite exposures and contamination; 5) Identify how exposure and contamination estimates would be made in the event that the computer method is unavailable; 6) Describe how exposure and contamination estimated would be adjusted in the event that onsite meteorological data are not available.

F. Section II.H.6.a, "Access to Data from Monitoring Systems" (page II-37), Section II.H.8, "Meteorological Instrumentation and Procedures" (pages 38) and Appendix 2, "Radiological Assessment and Monitoring" (pages A2-1/6), of the Lee Emergency Plan briefly discusses meteorological data acquisition and evaluation. Chapter 2, "Site Characteristics", Section 2.3.3, "Onsite Meteorological Measurement Programs" (pages 2.3-26/32), of the Lee Nuclear Station provides a more detailed discussion. However, there is no description of the distribution of meteorological data to the emergency response facilities, the Nuclear Regulatory Commission (NRC) and to the States. In addition, there is no discussion of an on-site backup meteorological data system to provide wind speed and direction when data are not available from the primary system. Finally, there are no details of how the National Weather Services is to be contacted, what data are to be requested, and how the data should be interpreted to get information that is representative of the Lee site. Discuss the acquisition and distribution of meteorological information representative of the Lee site to emergency response facilities, the NRC, and the states. Discuss provisions for obtaining and evaluating meteorological information in the event data from the primary meteorological data system are not available.

G. Section II.I.6, "Determination of Release Rates and Projected Doses When Installed Instruments are Inoperable or Off-Scale" (page II-41), of the Lee Emergency Plan states that plant implementing procedures establish processes for estimating release rates and doses when instrumentation used for assessments is not available. It mentions two considerations, field monitoring data and surrogate instrumentation and methods for estimating fuel damage. Describe the applicable implementing procedures to include the following information: 1) Methods for determining release rates and doses when instrumentation used for assessments in inoperable or readings are off scale, and summarize the contents of each procedure; 2) Identify who makes the decision to use alternative methods for estimating release rates and doses; 3) Identify who estimates release rates in these cases; 4) What compensatory measures are taken in the assessment; 5) Describe how are release rates estimated from field monitoring data; 6) What assumptions are made in the process; 7) What is the sensitivity of the release rate estimates to the assumptions.

H. Section II.I.10, "Relating Measured Parameters to Dose Rates" (page II-42), of the Lee Emergency Plan states that details of the capability are set forth in Appendix 2, "Radiological Assessment and Monitoring" (pages A2-1/8), and involve use of the dose assessment models and procedures generally described in that appendix. However, no specific procedures are listed or described. Provide a list of procedures used to related measured parameters to dose rates for key isotopes and for comparing integrated dose estimates with Environmental Protection Agency (EPA) protective action guides.

13.03-63

SITE-10: Evacuation Provisions and Actions

Basis: NUREG-0654/FEMA-REP-1; Evaluation Criterion J.1; Evaluation Criterion J.2; Evaluation Criterion J.3; Evaluation Criterion J.5; Evaluation Criterion J.6; Evaluation Criterion J.10.a

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

A. Section II.J.1, "On-Site Notification" (page II-43), of the Lee Emergency Plan indicates in high noise areas, measures other than the public address system may be used to notify people located within the protected area of an emergency. However these measures are not described. Individuals within the Protected Area are notified within 15 minutes of the declaration an emergency. The plan does not address the time necessary to warn people outside the Protected Area. Clarify the statement: in high noise areas, measures other than the public address system may be used to notify people located within the protected area of an emergency. Discuss the time it will take to notify personnel and visitors outside the protected area after identification of an emergency.

B. Section II.J.2, "Evacuation Routes and Transportation" (page II-43), of the Lee Emergency Plan states provisions for evacuation of on-site individuals include evacuation by private automobile (15-30 min. high traffic density not expected), but preplanned routes are not identified. Section J.2 also states that Security forces will arrange transportation for those without cars, but does not provide information on what type of transportation the Security Force will have available to transport people without cars. Section J.2 also states that designated relocation site will have decontamination and contamination control capability and equipment, but the locations of these facilities are not identified. Explain why prearranged routes, coordinated with the State and local governments were not identified in the Lee Emergency Plan. Discuss the type of transportation the Security Force will use to transport people without cars. Discuss where the relocation center will be established. Additionally, if the relocation center is not within the control of Duke Energy, provide information on when the letters of agreement be available.

C. Section II.J.3, "Personnel Monitoring and Decontamination" Appendix 6, "Emergency Equipment and Supplies" (page A6-2), is a general list of the types of equipment available, but there are no details on what type of equipment is actually available, where it is stored, how often it tested and when is it inventoried. Relocation sites will provide a location for personnel monitoring. According to Section J.2, the Emergency Coordinator directs contamination monitoring of personnel, vehicles, and personal property arriving at the relocation site. Describe the decontamination capabilities and equipment sufficient to assess adequacy and information on the criteria used for personnel and other monitoring.

D. Section J.6, "Protective Measures" (pages 45/46), of the Lee Emergency Plan states that measures are taken to minimize ingestion and or inhalation of radionuclides to minimize exposure below limits. However, the measures used are not identified. Section J.6 addresses that self contained breathing apparatus (SCBAs) are used in location where there is low oxygen or fires. Other respiratory protection is available and issued by Radiation Protection or Safety and Health. The Lee Emergency Plan does not address training for use of (SCBAs) or other respiratory protection equipment. In addition, Section J.6 does not address the number of respirators available or the maintenance of the equipment. The criteria for use of protective clothing (PCs) are given, however, the location of the equipment and inventory is not addressed to ensure that the PCs are available when needed. The use of radioprotective drugs (potassium iodide [KI]) is mentioned in the Lee Emergency Plan, but there are no criteria for issuance, how and where it is stored and inventoried, and who makes the decision on issuance. Describe the measures to be used so an assessment of the adequacy of the measures used to minimize exposure can be made. Describe the training in the use of respiratory equipment as well as the inventory and maintenance of the equipment and on storage and inventory of PCs. Describe the criteria for issuance of KI, how and where it is stored and inventoried, and who makes the decision on issuance.

E. Appendix 4, "Evacuation Time Estimate" (pages A4-1/12), of the Lee Emergency Plan includes maps of evacuation routes, evacuation areas, and general locations of shelter areas and relocation sites. Pre-selected radiological sampling and monitoring point locations are not identified. Provide the specific locations of the shelter areas and the relocation sites and the pre-identified monitoring locations or provide an Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) for when those locations would be identified.

13.03-64

SITE-11: Contamination Control and Dose Limits

Basis: NUREG-0654/FEMA-REP-1; Evaluation Criterion K.1.a; Evaluation Criterion K.2; Evaluation Criterion K.3.a; Evaluation Criterion K.3.b; Evaluation Criterion K.5.a; Evaluation Criterion K.5.b; Evaluation Criterion K.6; Evaluation Criterion K.6.b; Evaluation Criterion K.6.c; Evaluation Criterion K.7
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

A. Section II.K.1, "On-Site Exposure Guidelines and Authorizations" (pages II-51/52), of the Lee Emergency Plan only reiterates material from NUREG-0654 and EPA 400-R-92-001 expect for assigning responsibility for authorizing emergency exposures. Describe the procedure for requesting emergency exposures in excess of occupational dose limits.

B. Section II.K.2, "Radiation Protection Program" (page II-52), of the Lee Emergency Plan refers to Chapter 12, "Radiation Protection", of the Lee Nuclear Station Final Safety Analysis Report (FSAR) for a description of the Lee Nuclear Station radiation protection program (RPP), which is claimed to be consistent 10 CFR 20. Section II.K.1, "On-Site Exposure Guidelines and Authorizations" (pages II-51/52), of the Lee Emergency Plan describes the provisions made for implementation of emergency exposure guidelines. No details of the RPP are provided. Describe the portions of the occupational radiation protection programs outlined in the FSAR, the Design Control Document (DCD), NEI 07-08, and NEI 07-03 and that are relevant to radiation protection during emergencies at Lee Nuclear Station. Describe Lee Nuclear Station exceptions, clarifications, and extensions to the RPP related to emergency conditions. List applicable procedures and summarized the contents of each procedure.

C. Section II.K.3, "Dosimetry and Dose Assessment" (pages II-52/53), of the Lee Emergency Plan states implementing procedures associated with the Lee Emergency Plan establishes requirements for distributing dosimeters to emergency responders, including individuals from off-site locations. However, no implementing procedures related to external and internal dosimetry are included. There is no mention of contingency arrangements. Provide a list of implementing procedures related to external and internal dosimetry and summarize the applicability and contents of each procedure. Describe the process by which responders, particularly those from off site, obtain dosimetry. Where do they report, etc? Describe contingency plans for providing dosimetry services in the event of loss of power, instrument failure, inadvertent contamination of counting areas, etc.

D. Section II.K.3, "Dosimetry and Dose Assessment" (pages II-52/53), of the Lee Emergency Plan states that "Station procedures establish guidance for wearers to periodically read their self-reading dosimeters..." and "...Duke Energy maintains individual dose records in accordance with the requirements of 10 CFR 20 and the radiation protection program and its supporting procedures". cursory review of Chapter 12 of the Lee FSAR (the RPP) fails to disclose any significant discussion of maintenance of dose records or supporting procedures in this area. The Lee Emergency Plan does not discuss contingency plans for accessing dose records should normal access be precluded by post-accident conditions. List all procedures related to reading dosimeters and summarize the contents of each. Describe guidance related to frequency of reading dosimeters during emergency conditions. List procedures related to maintenance of emergency worker dose records and discuss the contents of each. Identify and discuss contingency plans for accessing dose records should post-accident conditions preclude normal access.

E. Section II.K.5.a, "Decontamination Action Levels" (page II-53), of the Lee Emergency Plan states that Duke Energy implements procedures and has supplies. It does not state what the decontamination levels are, who decides how and when to decontaminate, etc. The Lee Emergency Plan does not reference the RPP in this area or describe any procedures related to decontamination. Provide a list of procedures related to decontamination and a description of the contents of each procedure. List

decontamination levels for personnel, equipment, and areas. Provide criteria for returning personnel and items to normal use. Provide specific references to location where decontamination procedures are called out.

F. Section II.K.5, "Decontamination Action Levels" (page II-53), of the Lee Emergency Plan states that Duke Energy implements procedures for decontamination of on-site emergency personnel wounds, etc., and refers to the general list of decontamination supplies found in Appendix 6, "Emergency Equipment and Supplies" (page A6-1/2) of the Lee Emergency Plan. Section II.K.5 does not state what procedures are appropriate, who is responsible for decontamination, where the decontamination supplies are kept, who is responsible for maintaining decontamination supply inventories, etc. The Lee Emergency Plan does not address waste disposal other than including it in a list of items to be covered by implementing procedures. The Lee Emergency Plan does not reference the RPP in this area or describe any procedures related to decontamination of wounds, etc. Provide a list of procedures that address means available for decontamination of surfaces, equipment, and personnel. Describe the contents of each procedure. Describe plant facilities that provide the means for decontamination. Describe the means of handling wastes resulting from decontamination. Elaborate on the emergency equipment and supplies list. What are surface contamination control and survey supplies? What are contamination control and decontamination supplies? Where will the emergency equipment and supplies be stored? How does relocation of the Technical Support Center (TSC) and Operations Support Center (OSC) from the DCD location affect decontamination efforts?

G. Section II.K.6.a, "Contamination Control Measures" (page II-53), of the Lee Emergency Plan discusses access control in the event of an emergency by stating that requirement for site access control is established in the FSAR and Security Plan. State and local agencies will control access to the owner controlled area consistent with State and local plans. The Lee Emergency Plan also states that the Station Security Force will control entry to the protected area in the event of an emergency, but no implementing procedures are included. Provide a list of procedures related to access control.

H. Section II.K.6.b, "Contamination Control Measures" (page II-53/54), of the Lee Emergency Plan states that Nuclear Supply Chain personnel will make arrangements for transport of non-contaminated off-site supplies in event of contamination. However, no implementing procedures are included. Describe how uncontaminated water and food will be made available onsite should onsite water and food become contaminated. List any procedures to be followed in obtaining and distributing uncontaminated food and water supplies.

I. Section II.K.6.c, "Contamination Control Measures" (page II-54), of the Lee Emergency Plan states that areas and items are permitted to return to normal use following conduct of appropriate surveys and verification that the contamination levels meet criteria specified in the RPP or its supporting procedures. However, no implementing procedures are included. Define appropriate surveys and summarize the RPP criteria for decontamination. List procedures associated with decontamination and release of previously contaminated areas and items to normal use. Identify specific locations where details related to return of previously contaminated areas and items to normal use can be found.

J. Section II.K.7, "Decontamination of Relocated Lee Nuclear Station Personnel" (page II-54), of the Lee Emergency Plan states that Lee Nuclear Station makes provisions for protective clothing, contamination monitoring, at the designated relocation site. A general description of the equipment and supplies that are typically available is included in Appendix 6. However, no implementing procedures are included. Describe the facilities at the relocation site that would be used in decontamination of relocated personnel. List procedures related to the decontamination of relocated personnel.

13.03-65

SITE-12: Medical Services for Lee Nuclear Station Workers and Contaminated Injured Individuals
Basis: 10 CFR 50.47(b)(12); NUREG-0654/FEMA-REP-1; Evaluation Criterion L.1; Evaluation Criterion L.2

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

Section II.O.1.a “Off-site Emergency Response Training” (page II-69) of the Lee Emergency Plan states that Duke Energy provides or supports training for affected hospital, ambulance/rescue personnel. Periodic drills, exercises, and material support are provided consistent with agreements to be developed with medical support providers. Section II.L.1, “Hospital and Medical Support” (Page II-55) of the Lee Emergency Plan states that an agreement has been established with Piedmont Medical Center to provide medical services for injured personnel. Certification letters are in Appendix 7, “Certification Letters” (page A7-1) of the Lee Emergency Plan. Final agreements letters have not been established. Provide information on when the agreements will be finalized between Duke Energy and the medical support providers.

13.03-66

SITE-13: Recovery and Reentry Actions

Basis: NUREG-0654/FEMA-REP-1; Evaluation Criterion M.2; Evaluation Criterion M.3; Evaluation Criterion M.4

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

A. Section II.M.2, “Recovery Organization” (pages II-57/58), of the Lee Emergency Plan discusses the basis and procedure for the development of a recovery organization. The primary positions in the Recovery Organization are described on pages II-57/58. Emergency Operations Facility (EOF) Director assumes control and direction of the recovery operation with the authority and responsibilities set forth in the Emergency Plan Implementing Procedures (EPIPs). Provide the position/title and authority and responsibilities for the facility recovery organization.

B. Section II.M.3, “Changes in Organizational Structure”, (pages II-58/59), of the Lee Emergency Plan does not address the means for informing members of the onsite response organizations that a recovery operation has been initiated. The Lee Emergency Plan does state that the EOF Director will notify the Nuclear Regulatory Commission (NRC) Operations Center and the State and local Emergency Operations Center (EOC). The means for this notification was not addressed. Discuss the notification of emergency response personnel onsite and emergency response organizations offsite that the emergency has been terminated and that a recovery organization has been implemented.

C. Section II.M.4, “Updating Total Population Exposure During Recovery Operations” (page II-59), of the Lee Emergency states that the Radiological Assessment Manager will work with South Carolina and North Carolina officials to periodically update estimates of total population exposure using population distribution data. The information on who they will be communicating with is not provided. Discuss who the Radiological Assessment Manager will be communicating with at the state level.

13.03-67

SITE-14: Drill and Exercise Evaluation and Critiques

Basis: 10 CFR 50, Appendix E.IV.F.2.f.; 10 CFR 50, Appendix E.IV.F.2.g; NUREG-0654/FEMA-REP-1; Evaluation Criterion N.1.b. ; Evaluation Criterion N.4; Evaluation Criterion N.5

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

Section II.N., "Exercises and Drills" (pages II-60/63), of the Lee Emergency does not contain a statement about remedial exercises being performed if the emergency plan is not satisfactorily tested during the biennial exercise. Discuss remedial exercises.

13.03-68

SITE-15: Training Program for Emergency Responders, Instructors and Directors and Coordinators
Basis: 10 CFR 50, Appendix E.IV. F.1.ix; NUREG-0654/FEMA-REP-1, Evaluation Criterion O.3; Evaluation Criterion O.4; Evaluation Criterion O.4.a; Evaluation Criterion O.4.b; Evaluation Criterion O.4.c; Evaluation Criterion O.4.d; Evaluation Criterion O.4.e; Evaluation Criterion O.4.f; Evaluation Criterion O.4.g; Evaluation Criterion O.4.h; Evaluation Criterion O.4.i; Evaluation Criterion O.4.j
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1 and 2

Section II.O.4.g, "Emergency Response Training and Qualification" (page II-66), of the Lee Emergency Plan states that Duke Energy provides position-specific training for local support services/emergency service personnel. Content of the training program is appropriate for the duties and responsibilities of the assigned position. Section II.O.1.a, "Off-site Emergency Response Training" (page II-64), of the Lee Emergency Plan describes off-site emergency response personnel training. There is no mention of local news media personnel. Discuss training of local news media personnel.

13.03-69

SITE-16: Emergency Preparedness Program Maintenance and Implementing Procedures
Basis: NUREG-0654/FEMA-REP-1; Evaluation Criterion P.7; Evaluation Criterion P.9; Evaluation Criterion P.10
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 1

A. Appendix 5, "Implementing Procedures" (page A5-2), of the Lee Emergency Plan provides topical listing of Emergency Plan Implementing Procedures (EIPs) that support the Lee Emergency Plan, however, the Lee Emergency Plan calls out procedures that do not appear to be listed in the topical list. Provide information about procedures that are discussed in the plan, but not listed in Appendix 5.

B. Section II.P.9, "Emergency Plan Audits" (pages II-69/70), of the Lee Emergency Plan describes Duke Energy's Nuclear Performance Assessment organizations independent audit of the Lee Nuclear Station emergency preparedness program. Frequency of the periodic audits is based on an assessment of performance, but all elements of the Lee Emergency Plan program must be reviewed at least once every 24 months. 10 CFR 50.54(t)(1), states that the independent audit must be conducted at least every 12 months. Discuss the audits being conducted not less than once every 24 months instead of every 12 months.

13.03-70

SITE-17: Plume Exposure EPZ
Basis: 10 CFR 50.33(g), 10 CFR 52.77 and 10 CFR 50.47(c)
SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criterion 10

A. Section C.2, "Emergency Planning Zones," in Part 5, "Emergency Plan," describes plume exposure pathway and ingestion pathway emergency planning zones (EPZs). The plume exposure pathway EPZ consists of an area about 10 miles in radius around the site. Figure I-1, "Plume Exposure Pathway Emergency Planning Zone," provides an illustration of the plume exposure pathway EPZ. The plume exposure pathway EPZ is also described to be the area where the principal sources of incident-related

radiation exposures are likely to be whole body gamma radiation exposures and inhalation exposures from the passing radioactive plume. Discuss why the plume exposure pathway description does not include whole body external exposure to gamma radiation from deposited material as specified on page 9 of NUREG-0396/EPA 520/1-78-016, "Planning Basis for the Development of State and local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Reactors."

B. Section C.2, "Emergency Planning Zones," in Part 5, "Emergency Plan," describes plume exposure pathway and ingestion pathway emergency planning zones (EPZs). Discuss whether the exact sizes and configurations of the EPZs surrounding the plant were determined in relation to the local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries.

13.03-71

SITE-18: Basis: 10 CFR 50.33(g), 10 CFR 52.77

SRP Acceptance Criteria: Requirements A; Acceptance Criterion 10 and 18

Coordination with Catawba Indian Nation. The Lee Emergency Plan lists coordination with Risk Counties and States of North and South Carolina. Since the Catawba Indian Nation Office of Tribal Government is located in Rock Hill, SC (Within the 50 Mile IPZ) the Tribal Government should be coordinated with as a Sovereign Nation, even if it does not have a direct emergency response roll. Explain measures or show documentation that the Lee Emergency Plan has been coordinated with the Catawba Indian Nation Tribal Government.

13.03-72

SITE-19: Evaluation Against the SRP

Basis: 10 CFR 52.79(a)(41) and 10 CFR 50.34(h)

SRP ACCEPTANCE CRITERIA: Requirement A; Acceptance Criteria 1 and 11

Table 1.9-202, "Conformance with SRP Acceptance Criteria," in Part 2 of the COL Application states that the Section 13.3, "Emergency Planning," is acceptable from a design certification perspective. However, the SRP Acceptance Criteria related to Emergency Planning in Section 13.3 of the NUREG-0800, Standard Review Plan," (SRP) were not evaluated against the content of Part 5, "Emergency Plan," of the COL Application. Provide an evaluation design certification perspective without an evaluation of the Lee Emergency Plan against Revision 3 of the Standard Review Plan dated March 2007. Identify all differences between the Lee Emergency Plan and SRP Chapter 13.3, "Emergency Planning." Where differences exist, discuss how the proposed alternative provides an acceptable method of complying with applicable regulations, or portions of the regulations.

13.03-73

SITE-20: COL Information Items

Basis: 10 CFR 50.47 and Appendix E to 10 CFR Part 50

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

A. COL Action Item 13.3-1 in NUREG-1793, "Final Safety Evaluation Report Relating to Certification of the AP1000 Standard Design," states in part that the COL applicants that reference the AP1000

certified design will address communication interfaces associated with the TSC. Explain why this aspect of the COL Action Item was not captured in STD COL 13.3-1?

B. COL Action Item 13.3.3.3.5-1 in NUREG-1793, "Final Safety Evaluation Report Relating to Certification of the AP1000 Standard Design," states: "Combined license applicants referencing the AP1000 certified design will address activation of the emergency operations facility consistent with current operating practice and NUREG-0654/FEMA-REP-1."

Section 13.3, "Emergency Planning," of Part 2 of the FSAR states in STD COL 13.3-2 states: "The emergency plan describes the plans for coping with emergency situations, including communication interfaces and staffing of the emergency operations facility." Discuss the relationship between the two Information Items. For example, while COL Action Item 13.3.3.3.5-1 addresses activation of the emergency operations facility, STD COL 13.3-2 addresses staffing and communication interfaces of the emergency operations facility.

13.03-74

SITE-21: ITAAC

Regulatory Basis: 10 CFR 52.80(a)

SRP ACCEPTANCE CRITERIA: Requirement E; Acceptance Criterion 23

A. Some EP ITAAC will be completed for Unit 1 before those for Unit 2. To allow closure of the common ITAAC for both units when Unit 1 is constructed, was the development of separate ITAAC tables for each unit considered so that the common ITAAC would not need to stay open until Unit 2 is constructed?

B. In Table 3.8-1, "Inspections, Tests, Analyses, and Acceptance Criteria," in Part 10 of the COL Application, Acceptance Criterion 6.3 ends with the words "for various radiological conditions." Table 14.3.10-1, "Emergency Planning Generic Inspections, Tests, Analyses, and Acceptance Criteria," of Section 14.3.10, "Emergency Planning Generic Inspections, Tests, Analyses, and Acceptance Criteria," of NUREG-0800, "Standard Review Plan," contains corresponding Acceptance Criteria 9.3 that ends with the words "for various meteorological conditions." Justify the wording difference between Acceptance Criterion 6.3 in the COL Application and corresponding Acceptance Criterion 9.3 in NUREG-0800.

C. Table 3.8-1, "Inspections, Tests, Analyses, and Acceptance Criteria," in Part 10 of the COL Application, each acceptance criterion is prefaced with the phrase "A report exists that confirms ..." The goal of ITAAC Acceptance Criteria is to be objective criteria that can be demonstrated to have been met prior to fuel load. The Acceptance Criteria must be specific and sufficiently objective, in order to clearly identify what the requirements are, and to provide the ability to determine whether they have been met. In RIS 2008-05, "Lessons Learned to Improve Inspections, Tests, Analyses, and Acceptance Criteria Submittal," February 27, 2008, the following guidance is provided in regard to the use of such a phrase:

If applicants use the phrase, "a report exists and concludes that ...," they should consider specifying the scope and the type of report. For example, they should explain whether the scope of the report includes the design, the as-built construction (as reconciled with the design), or any other information.

The use of the phrase "A report exists that confirms ..." in the Acceptance Criteria does not clearly describe how verification is actually conducted to confirm that the acceptance criteria are met. An area

that might be appropriate for using a report to confirm that various ITAAC have been met is Planning Standard 8.0, "Exercises and Drills," for which an Exercise Report could serve to verify that various exercise-related ITAAC (e.g., exercise objectives) have been met.

Consistent with RIS 2008-05, discuss the type and scope of the reports cited in ITAAC Table 3.8-1, including how the report will serve to provide accurate and reliable confirmation that the Acceptance Criteria have been met, or consider removing the words "A report exists that confirms" from the Table, to create specific and sufficiently objective Acceptance Criteria. The removal of the reference to future reports will provide for objective ITAAC Acceptance Criteria, and leave open the specific method(s) that the licensee will use to confirm that the ITAAC acceptance criteria have been met.

D. Table 3.8-1, "Inspections, Tests, Analyses, and Acceptance Criteria," in Part 10, "Proposed Combined License Conditions (Including ITAAC," of the COL Application provides four separate acceptance criteria for planning standard 8.0, "Exercises and Drills." Address the following questions pertaining to the full-participation exercise, and the applicable guidance provided in Regulatory Guide (RG) 1.206, Appendix B, Table C.II.1-B1, "Emergency Planning – Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)."

- D.1 Table C.II.1-B1 acceptance criterion 14.1.3 addresses offsite exercise objectives associated with the full participation exercise. Explain why Table 3.8-1 does not include an acceptance criterion to reflect the offsite exercise objectives associated with the full participation exercise, and how this is consistent with the intent of this generic ITAAC. Either provide the appropriate acceptance criterion, or explain why it is not required.
- D.2 Table 2.3-1 acceptance criteria 8.1.2.1 and 8.1.2.2 appear to address Table C.II.1-B1 acceptance criterion 14.1.2. Explain why 8.1.2.2 does not include the word "successfully" in regard to emergency response personnel performing their assigned responsibilities.
- D.3 Table C.II.1-B1 acceptance criterion 14.1.2 includes the bracketed statement that "[t]he COL applicant will identify responsibilities and associated acceptance criteria." Explain why Table 3.8-1 (acceptance criteria 8.1.2.1 and/or 8.1.2.2) does not identify any responsibilities and associated acceptance criteria, in relation to onsite emergency response personnel successfully performing their assigned responsibilities. Either provide the appropriate acceptance criterion, or explain why it is not required.
- D.4 Table C.II.1-B1 acceptance criterion 14.1.1 includes the bracketed statement that "[t]he COL applicant will identify exercise objectives and associated acceptance criteria." Table 3.8-1 acceptance criterion 8.1.1.2 states that exercise objectives, including acceptance criteria, address each of the 8 listed emergency planning program elements. However, Table 3.8-1 does not identify (in the acceptance criteria) what the exercise objectives and associated acceptance criteria are (as called for in Table C.II.1-B1). The goal of ITAAC acceptance criteria is to be objective criteria that can be demonstrated to have been 'met' prior to fuel load. The acceptance criteria must be specific and sufficiently objective, in order to clearly identify what the requirements are, and to provide the ability to determine whether they have been met. As written, the acceptance criterion 8.1.1.2 does not provide such clear and objective criteria. For the full participation exercise acceptance criteria in Table 3.8-1, provide specific exercise objectives and associated acceptance criteria, consistent with Table C.II.1-B1. Either provide the appropriate acceptance criterion, or explain why it is not required.

E. EP Program Element 3.2 of Table 3.8.1 states that the means exists for communications from the control room, TSC, and EOF to NRC Headquarters and regional office EOCs (including establishment

of the Emergency Response Data System (ERDS) between the onsite computer system and the NRC Operations Center. The "Inspection, Tests, and Analysis" for the EP Program Element is a note that states that the ITAAC for these communications systems are addressed in Table 3.1-1 of Tier 1 of the AP1000 Design Control Document, Rev.16. However, ITAAC number 2 in Table 3.1-1, "Inspections, Tests, Analyses, and Acceptance Criteria," states that the TSC has voice communication equipment for communication with the control room, EOF, OSC, and NRC. Provide additional details regarding the establishment of communications with the regional NRC EOC and ERDS between the onsite computer and the NRC Operations Center.

F. Table C.II.1-B1, " Emergency Planning-Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," in Appendix C.II.1-B, "Development Guidance for Emergency Planning ITAAC," to RG 1.206 contains the generic EP-ITAAC table. The table lists 17 Planning Standards and the accompanying EP Program Elements, Inspection, Tests, Analysis, and Acceptance Criteria. The COL application EP-ITAAC does not address 9 of the generic ITAAC Planning Standards. The following generic ITAAC Planning Standards are not addressed:

1. Assignment of Responsibility-Organizational Control--10 CFR 50.47(b)(1) An inspection of the implementing procedures or staffing rosters will be performed.
2. Onsite Emergency Organization--10 CFR 50.47(b)(2) An inspection of the implementing procedures or staffing rosters will be performed.
3. Emergency Response Support and Resources--10 CFR 50.47(b)(3) Provide letters of agreement or other documentation that demonstrates arrangement have been made for requesting and effectively using assistance resources, arrangements to accommodate local and state staff at the licensee's near site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.
4. Radiological Exposure Control--10 CFR 50.47(b)(11) A test will be performed of the capabilities
5. Medical and Public Health--10 CFR 50.47(b)(12) A test will be performed of the capabilities
6. Recovery and Reentry Planning and Post Accident Operations --10 CFR 50.47(b)(13) A report exists that confirms the Recovery and Reentry and Post Accident Operations plans have been demonstrated.
7. Radiological Emergency Response Training--10 CFR 50.47(b)(15) An inspection will be performed to verify the emergency response training program meets the applicable standards for those who may be called upon to assist in an emergency and that procedures for the conduct and evaluation of the training program exist and records of training offered and conducted exists.
8. Responsibility for Planning Effort: Development, Periodic Reviews, and Distribution of Emergency Plan --10 CFR 50.47(b)(16) An inspection of the Emergency Plan distribution will be performed to insure all agencies identified in the Emergency Plan have been provided a copy of the final, approved plan and any subsequent revisions, changes, supplements, or amendments.

9. Implementing Procedures: 10 CFR Part 50, Appendix E.V. An inspection of the submittal letter will be performed to insure all required implementing procedures are adequately addressed.

Discuss why ITAAC were not developed for the above Planning Standards, or propose an ITAAC.