

BellBendeRAIPEm Resource

From: Takacs, Michael
Sent: Tuesday, June 17, 2014 2:09 PM
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Subject: Bell Bend SCOLA draft RAI 130-7551 Emergency Planning - Evacuation Time Estimate
Attachments: Draft RAI 130-7551.docx

Rocky,

Attached is draft RAI No. 130-7551 regarding Emergency Planning Evacuation Time Estimate for the Bell Bend COL application. Please review and let me know at your earliest convenience if a clarifying conference call is needed or that the RAI can be sent to you as final.

Contact me if you have any questions.

Thanks,

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Draft Request for Additional Information 130-7551

Issue Date: 06/17/2014

Application Title: Bell Bend Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: 13.03 - Emergency Planning

Application Section: COLA Part 5, Evacuation Time Estimate (ETE)

QUESTIONS

13.03-72

Section 8.1, "Transit Dependent People Demand Estimate," of the ETE study states that 592 residents in Columbia County and 5,418 residents in Luzerne County require transportation. The values for Luzerne County were obtained from the county emergency plan and are listed in Table 8-1B, "Luzerne County Transit-Dependent Populations." The value of 592 residents for Columbia County was calculated in Table 8-1A, "Columbia County Transit-Dependent Populations." Review of the Columbia County Emergency Management Agency Radiological Emergency Response Plan (Rev. 1) shows the total number of transportation dependent residents is 2,745. **Explain why the value from the Columbia emergency plan was not used to estimate the total transit dependent population for Columbia County. Explain any impact to the ETE if 2,745 transportation dependent residents are used in the analysis.**

13.03-73

The applicant illustrates a calculation for estimating buses by applying an equation presented in Section 8.1 of the ETE study. The equation reduces the total number of buses by 50% to reflect the number who may rideshare. This reduction is typically appropriate for evacuations when additional data is not available, however, the Columbia and Luzerne emergency plans provide specific estimates of the number of transit dependent residents. **Explain why it is appropriate to reduce the county estimates for transit dependent residents by 50%. Explain any impact this may have on the ETE results.**

13.03-74

Section 3.8, "Special Event," of the ETE study states that roadway improvements from the 2011 Bell Bend Traffic Impact Study were included in the special event scenario. The scenario includes a combination of Bell Bend construction and refueling at the Susquehanna Steam Electric Station. The improvements include signal additions and improved lane configurations in the Bell Bend vicinity. **Describe the traffic improvements in greater detail in the ETE study. Explain why these improvements are not listed as specific recommendations that could be taken to significantly improve evacuation time following the guidance of Appendix 4 to NUREG-0654/FEMA-REP-1, Rev. 1, or explain why this is not necessary.**

13.03-75

In Section 8, "Transit-Dependent and Special Facility Evacuation Time Estimates," the ETE study states that based on discussion with offsite agencies, the mobilization time for buses is approximately 90 minutes. This value was then applied to school buses, transit dependent buses, and specialized transport for medical facilities and the special needs population.

Discuss which offsite agencies provided the estimate for mobilization time, and explain why 90 minutes is appropriate for each of these unique sets of transportation resources.

13.03-76

The subtotal for colleges listed in Table 8-2, "School Population Demand Estimates," is 2,735. The total for the same 3 colleges identified in Table E-3, "Colleges within the EPZ," is 2,762.

Explain which value is correct and which value was used in the analysis.

13.03-77

In Section 3.4, "College Students," an average vehicle occupancy of 1.0 is assumed which would indicate that some vehicles have more than one occupant and other vehicles have less than one occupant. **Explain how an average vehicle occupancy of 1.0 was estimated for college students.**

13.03-78

The ETE study illustrates major evacuation routes in Figure 10-2, "Evacuation Route Map." The Luzerne and Columbia county emergency plans show many more evacuation routes than are represented in Figure 10-2. **Explain why the designation of evacuation routes in the ETE study is not consistent with the county plans. Explain any impact this may have on the ETE results.**

13.03-79

The bus routes identified in Figure 8-2A and 8-2B, "Transit Dependent Bus Routes," do not correspond to the evacuation routes identified in the municipal and county emergency plans. **Explain whether the counties and municipalities agreed to the proposed bus routes identified in Figure 8-2A and 8-2B, "Transit Dependent Bus Routes," of the ETE study, or why these routes are representative of the municipal routes.**

13.03-80

The bus routes indentified in Figure 8-2A and 8-2B, “Transit Dependent Bus Routes,” do not serve ERPAs 5, 7 and 23 and appear to have limited service to ERPAs 1, 22, and 26. The distances for residents to walk to these routes for pickup is more than 2 miles in many instances. The distribution for notification of the public shows most people are notified within about 30 minutes, and the distribution for preparing to leave home shows 95% of the public is ready in 75 minutes. **Explain how the ETE calculation considers the notification and preparation distributions together with time to walk 2 miles or more, such that all transit dependent residents are in place and awaiting pickup prior to arrival of buses.**

13.03-81

Table 8-11, “Summary of Transit-Dependent Bus Routes,” of the ETE study identifies 45 buses required for Route 15 serving Nanticoke City in ERPA 21. Route 15 is shown in Table 8-13, “Transit-Dependent Evacuation time Estimates – Good Weather,” as having 11 buses and 2 waves for the evacuation. This would equate to 22 buses. **Explain how 2 waves of 11 buses each can serve an area where Table 8-11, “Summary of Transit-Dependent Bus Routes,” of the ETE study specifies 45 buses are required.**

13.03-82

The ETE study states in Section 8, “Transit-Dependent and Special Facility Evacuation Time Estimates,” that based on discussion with offsite agencies, bus mobilization is approximately 90 minutes. In Table 8-13, “Transit-Dependent Evacuation time Estimates – Good Weather,” a mobilization time of 80 minutes is identified for route numbers 2 and 15. **Explain the unique characteristics of bus routes 2 and 15 that justify a mobilization time that is less than all other routes.**

13.03-83

Table 8-5, “Summary of Transportation Resources,” indicates there is a need for 138 ambulances and 135 are available. A footnote to Table 8-5 suggests additional ambulances are available from neighboring counties. The Columbia County radiological emergency response plan identifies a need for 20 ambulances and only 14 available. The Luzerne County radiological emergency response plan identifies 23 unmet ambulance needs. **Explain the origin of the ambulance values in Table 8-5, “Summary of Transportation Resources.” Also, discuss any impact to the ETE if additional ambulances are needed from neighboring counties to evacuate the medical facilities and homebound special needs residents.**

13.03-84

Guidance in Appendix 4 to NUREG-0654/FEMA-REP-1, Rev. 1 provides that specific recommendations for actions that could be taken to significantly improve evacuation time shall be given. **Discuss whether any specific recommendations that could be taken to significantly improve evacuation time were identified. Provide preliminary estimates of the cost of implementing these recommendations, if such costs are significant.**

13.03-85

The ETE study describes in Table 1-1, "Stakeholder Interaction," that the County Emergency Management Office participated in data validation. **Discuss whether county emergency management participated from both Luzerne and Columbia counties.**

13.03-86

Identify the State, county, and local agencies that were contacted during the course of the ETE study, and explain the extent of interaction with these agencies as related to the development of the ETE. Explain whether the final ETE results were discussed with State, county or local agencies.