



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

August 16, 2013

10 CFR 50.4  
10 CFR 50, Appendix E

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

Sequoyah Nuclear Plant, Units 1 and 2  
Facility Operating License Nos. DPR-77 and DPR-79  
NRC Docket Nos. 50-327 and 50-328

**Subject: Sequoyah Nuclear Plant Units 1 and 2 - Revised Evacuation Time Estimates**

- References:
1. Tennessee Valley Authority letter to NRC, "Evacuation Time Estimates," dated December 18, 2012 (ML12362A475)
  2. Tennessee Valley Authority letter to NRC, "Evacuation Time Estimates Checklist," dated March 4, 2013 (ML13070A023)
  3. NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies," published November 2011 (ML113010515)

The purpose of this correspondence is to provide revised evacuation time estimates as requested by the Nuclear Regulatory Commission (NRC).

By letter dated December 18, 2012 (Reference 1), Tennessee Valley Authority (TVA) provided the analysis supporting Evacuation Time Estimates (ETE) for Sequoyah Nuclear Plant (SQN). By letter dated March 4, 2013 (Reference 2), TVA provided the ETE review criteria checklist from Appendix B of NUREG/CR-7002 "Criteria for Development of Evacuation Time Estimate Studies," (Reference 3), requested by the NRC in a telephone call on February 1, 2013.

In a June 6, 2013 teleconference, NRC provided specific comments to TVA regarding the December 2012 (Reference 1) ETE submittal. As a result, TVA's ETE submittals were revised.

Enclosure 1 to this letter provides a summary table of TVA responses to the specific NRC comments on TVA's 2012 ETE submittals provided in the June 6, 2013 teleconference.

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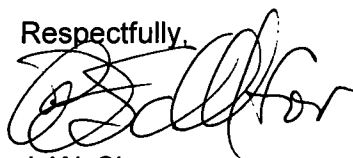
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Enclosure 2 to this letter provides the revised Evacuation Time Estimates for Sequoyah Nuclear Power Plant Plume Exposure Pathway Emergency Planning Zone.

Enclosure 3 to this letter provides a copy of the completed ETE review criteria checklist for the revised evacuation time estimates.

There are no new regulatory commitments in this letter. Should you have any questions or if additional information is needed regarding this submittal, please contact Walter H. Lee, Senior Emergency Preparedness Manager, at (423) 751-8577.

Respectfully,



J. W. Shea  
Vice President, Nuclear Licensing

Enclosures:

1. Comments and Responses to NRC Comments on TVA 2012 ETE Submittals
2. Evacuation Time Estimates for Sequoyah Nuclear Power Plant Plume Exposure Pathway Emergency Planning Zone
3. Table B-1 ETE Review Criteria Checklist - Sequoyah

cc (Enclosures):

NRC Regional Administrator - Region II  
NRC Senior Resident Inspector - Sequoyah Nuclear Plant

**Enclosure 1  
Tennessee Valley Authority  
Sequoyah Nuclear Plant  
Units 1 and 2**

**Comments and Responses to NRC Comments on TVA 2012 ETE Submittals**

**Comments and Responses to  
NRC Comments on TVA 2012 ETE Submittals**

<b>No</b>	<b>Site</b>	<b>Comment</b>	<b>Response</b>
1	General (all 3 sites)	Disabled and bed-ridden population not adequately addressed. Real or estimated numbers should be provided.	Table 1-3 of all 3 projects have been updated to reflect the disabled and bed-ridden population Sections 2.1 and 3.1.2 have been updated with disabled/bed-ridden population assumptions and information
2	General (all 3 sites)	No summary table for total number of available buses, ambulances or other transport methods.	Section 3.6 and Table 3-5 have been added to address the transportation resources and demand for buses, ambulances or other transport methods.
3	Sequoyah	Transit Dependent in Table 1-3 – Total number of estimated buses should be revised based on 30 people per bus or 50% of the stated seating capacity as noted in the NRC guidance.	Table 1-3 has been updated and also supporting text in Section 3.1.2
4	Sequoyah	Section 6.8– 3-hour to start evacuating transit-dependent (allowing time for majority of school buses to return) should be revised as Table 6-8 shows that the majority of schools have ETEs of more than 3 hours.	This section has been re-written to include more explanation and justification.
5	Browns Ferry	Transit Dependent in Table 1-3 – Population and bus numbers should be estimated based on NRC's guidance (1.5% of permanent population) or a justification should be provided for the current numbers provided in the table.	Table 1-3 has been updated and also supporting text in Section 3.1.2
6	Browns Ferry	Section 6.7 – Trip departure/preparation time assumption (2 hours) for transit-dependent should be justified or explained better.	This section has been re-written to include more explanation and justification.
7	Watts Bar	Transit Dependent in Table 1-3 – Population and bus numbers should be estimated based on NRC's guidance (1.5% of permanent population) or a justification should be provided for the current numbers provided in the table.	Table 1-3 has been updated and also supporting text in Section 3.1.2
8	Watts Bar	Section 6.8 - Trip departure/preparation time assumption (2 hours) for transit-dependent should be justified or revised to be consistent with the other sites.	This section has been re-written to include more explanation and justification.

**Enclosure 2  
Tennessee Valley Authority  
Sequoyah Nuclear Plant  
Units 1 and 2**

**Evacuation Time Estimates for Sequoyah Nuclear Power Plant Plume Exposure Pathway  
Emergency Planning Zone**