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

CNL-19-037

March 25, 2019

10 CFR 52, Subpart A

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

Clinch River Nuclear Site
NRC Docket No. 52-047

Subject: **Response to Request for Supplemental Information Regarding Changes Made in Revision 2 of the Application for Early Site Permit for Clinch River Nuclear Site**

References:
1. Letter from TVA to NRC, CNL-18-143, "Revision 2 of Application for Early Site Permit for Clinch River Nuclear Site," dated December 28, 2018
2. U.S. Nuclear Regulatory Commission Public Meeting Summary, "Notice of Forthcoming Meeting between the U.S. NRC and Tennessee Valley Authority to Discuss Topics Associated with Part 2, Site Safety Analysis Report (SSAR) of TVA's Early Site Permit Application," dated March 4, 2019

By letter dated December 28, 2018 (Reference 1), Tennessee Valley Authority (TVA) submitted Revision 2 of the application for an early site permit (ESP) for Clinch River Nuclear (CRN) Site in Oak Ridge, TN. The application was submitted in accordance with Part 52, Subpart A of *Title 10 of the Code of Federal Regulations*.

On March 1, 2019, a public meeting between TVA and the Nuclear Regulatory Commission (NRC) was held via teleconference to discuss changes made in Revision 2 of the ESP application that reflects updates to the Karst Evaluation Report and the Geologic Field Reconnaissance Report (Reference 2). Specifically, the size and exact location of a small, shallow landslide within the CRN Site location mentioned under TVA tracking number ESPACR# 18-007 as submitted in Enclosure 1 of Reference 1 was discussed.

The purpose of this letter is to provide supplemental information discussed in the public meeting to help the NRC staff document the extent and nature of this small landslide. The enclosure to this letter provides the supplemental information.

There are no new regulatory commitments associated with this submittal. If any additional information is needed, please contact Dan Stout at (423) 751-7642.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 25th day of March 2019.

Respectfully,

J. W. Shea
Vice President, Nuclear Regulatory Affairs and Support Services

Enclosure: Supplemental Information Regarding the Small Landslide Discussed in the March 1, 2019 Public Meeting Regarding TVA's Early Site Permit Application

cc (Enclosure):

A. Fetter, Project Manager, Division of New Reactor Licensing, USNRC

cc (without enclosure):

C. Haney, Regional Administrator, Region II, USNRC
J. Rankin, Branch Chief, Division of New Reactor Licensing, USNRC
R. Taylor, Director, Division of New Reactor Licensing, USNRC
M. Sutton, Project Manager, Division of New Reactor Licensing, USNRC
T. Dozier, Project Manager, Division of New Reactor Licensing, USNRC
M. M. McIntosh, Regulatory Specialist, Eastern Regulatory Field Office, Nashville District, USACE

ENCLOSURE

Supplemental Information Regarding the Small Landslide Discussed in the March 1, 2019 Public Meeting Regarding TVA's Early Site Permit Application

By letter dated December 28, 2018 (Reference 1), Tennessee Valley Authority (TVA) submitted Revision 2 of the application for an early site permit (ESP) for Clinch River Nuclear (CRN) Site in Oak Ridge, TN. The application was submitted in accordance with Part 52, Subpart A of *Title 10 of the Code of Federal Regulations*.

On March 1, 2019, a public meeting via teleconference was held to discuss changes made in Revision 2 of the ESP that reflects updates to the Karst Evaluation Report and the Geologic Field Reconnaissance Report (Reference 2). Specifically, the size and exact location of a small, shallow landslide within the CRN Site location mentioned under TVA tracking number ESPACR# 18-007 as submitted in Enclosure 1 of Reference 1 was discussed.

As a result of discussions in the March 1, 2019 public meeting, the following supplementation information is provided:

1. *Describe the location of the small landslide*. The landslide is located along the northeastern edge of the site peninsula. Figure 1 of this enclosure provides a map with the location of WP-077 (location of the small landslide) on the CRN Site taken from the Geologic Field Reconnaissance Report.

2. *Describe the geologic material (terrace or rock formation associated with the small landslide.* The landslide feature was mostly notable as it exposed underlying bedrock which facilitated detailed geologic mapping in the site area. The bedrock exposed by the shallow landslide was purplish-gray dolomitic limestone with distinctive angular chert clasts associated with the Blackford Formation of the Middle Ordovician Chickamauga group. The Blackford Formation is the name adopted in the CRN ESPA from local geologic mapping, but this same formation is sometimes regionally referred to as the Five Oaks Formation.

3. *Describe the size dimension/scale of the slide*. The landslide feature was located in an unreinforced road cut located on the south side of an east-west trending dirt access road that follows the northern margin of the site peninsula. The road cut at this location is approximately 2 meters (m) high. The landslide involved shallow slumping of the weathered rock and soil mantling the road cut in this area. The approximate dimensions of the landslide feature are 2 m (H) x 2 m (W) x 0.5 m (D) involving a total volume of approximately 2 cubic meters of material.

References:

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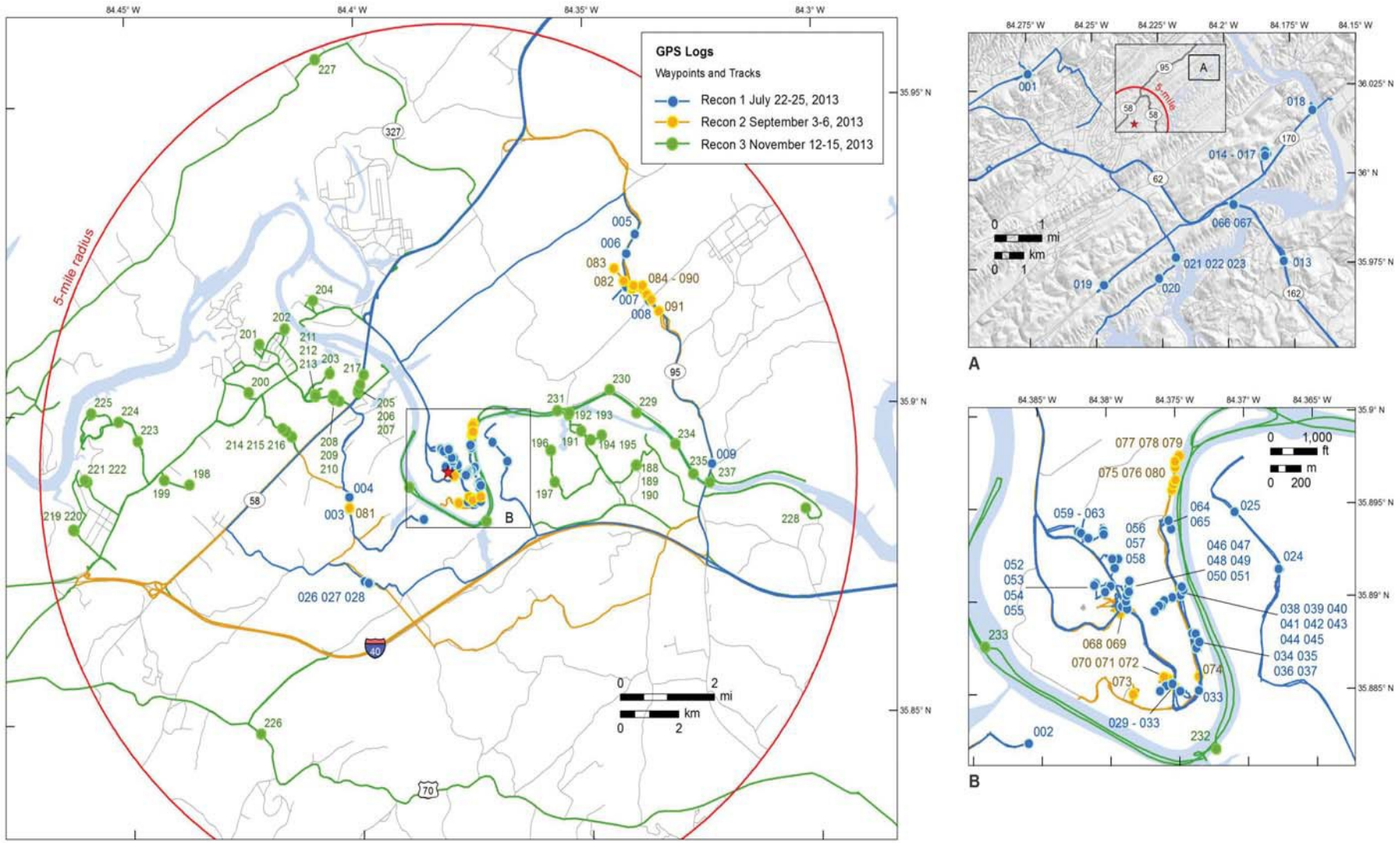

Figure 2: GPS tracks and waypoints in the CRN site area from LCI geologic field reconnaissance (2013). See Appendix A for a summary of field observations by waypoint.

Figure 1