2.9 RELATED FEDERAL PROJECT ACTIVITIES

The purpose of this section is to identify any federal or other activities within the region that are related to the Clinch River (CR) Small Modular Reactor (SMR) Project and could have cumulative impacts on the proposed action. Actions related only to the granting of licenses, permits, or approvals by other federal agencies are not considered in this review. This section also determines the potential need for another agency to cooperatively participate in the Environmental Report (ER) process.

For the purposes of this section of the ER, the activities or projects evaluated are limited to federal projects or activities that meet the following criteria:

- Federal projects or activities associated with acquisition and/or use of the proposed project site and transmission corridors or of any other offsite property needed for the proposed project
- Federal projects or activities that are required either to provide an adequate source of facility cooling water or to ensure an adequate supply of cooling water is available over the operating lifetime of the facility
- Federal projects or activities that must be completed as a condition of facility construction or operation
- Federal agency plans or commitments that result in significant new power purchases within the applicant's service area that have been used to justify a need for power
- Federal projects that are contingent on facility construction and operation

Three federal activities associated with the CR SMR Project were identified that meet one or more of the criteria listed above. These federal activities are: (1) roadway modifications to Tennessee State Highway (TN) 58, Bear Creek Road, and West (W) Bear Creek Road; (2) refurbishment of the barge terminal along Bear Creek Road; and (3) new transmission lines and substations. These three identified activities are described in the following sections.

2.9.1 TN 58/Bear Creek Road Modifications

As indicated in Subsection 4.4.2.3, roadway modifications are required along TN 58 and Bear Creek Road to support the construction of the Clinch River Nuclear (CRN) Site. The U.S. Department of Energy (DOE) currently manages part of the land to be impacted. To accommodate anticipated traffic accessing the CRN Site during the estimated peak traffic year (largest number of onsite construction and operations workers), necessary modifications include:

- Adding an additional loop ramp connecting TN 58 and Bear Creek Road
- Closing existing left-bound turn lanes onto the current loop ramp

- Adding additional turn lanes on TN 58 and Bear Creek Road
- Constructing a dual-lane roundabout on Bear Creek Road
- Widening Bear Creek Road from two to four lanes including the ability for reversible lanes
- Straightening and realigning Bear Creek Road at the CRN Site entrance (Reference 2.9-1)

The area in which the proposed modifications would occur is shown on Figure 3.1-1 (CRN Site Utilization Plan) and 3.1-2.

Modifications of these public roadways will be coordinated with the Tennessee Department of Transportation and with DOE, which currently manages part of the land that would be impacted.

2.9.2 Barge Terminal Refurbishment

Some construction materials and equipment could be transported to the CRN Site by barge. Therefore, construction of the CR SMR Project could also require refurbishment of the inactive DOE barge terminal located at CRM 14.1, near Bear Creek Road and the TN 58 ramp (Figure 3.1-1). Refurbishment of the terminal will be coordinated with DOE, which currently manages the land on which the barge terminal is located. Additional details of proposed barge terminal modifications are to be provided at COLA.

2.9.3 69 kV Underground Transmission Line

To meet the project objective of demonstrating a more reliable electric power supply through SMR operation in “power island” mode to critical facilities, the proposed CR SMR Project requires an additional 69 kilovolt (kV) transmission line. This new line connects the power plant to the Bethel Valley substation located approximately 5 miles (mi) to the northeast of the CRN Site. The proposed new transmission line is underground and primarily within the existing Bull Run SP-Watts Bar NP 500 kV transmission line right-of-way (ROW; Figure 3.7-2). The construction of this new line may also require new access roads. An expansion of the Bethel Valley substation is part of this process.

Tennessee Valley Authority (TVA) proposes to accomplish all of the upgrades and new switchyard construction within existing ROWs and/or existing substation locations. The ROW, the substations, and the surrounding property are currently owned and maintained by either TVA or DOE. Additional details of proposed new transmission lines are to be provided at COLA.

2.9.4 Summary

Aside from the three identified federal activities discussed above, no other activities associated with the CR SMR Project have been identified.

The three activities discussed above require coordination with other federal agencies. However, the federal agencies involved in these additional activities do not need to cooperatively

participate in the preparation of the ER or the U.S. Nuclear Regulatory Commission's (NRC) Environmental Impact Statement process.

In September 2008, NRC and the U.S. Army Corps of Engineers (USACE) signed an updated memorandum of understanding regarding environmental reviews for authorizations to construct and operate nuclear power plants (Reference 2.9-2). No federal agencies other than USACE have been identified as potential cooperating agencies. However, some collaboration with federal agencies may be required as part of the COLA preparation due to the need for permits, authorizations, and consultations associated with construction or operation of two or more SMRs. Permits, authorizations, and consultations are discussed in Section 1.2.

2.9.5 References

Reference 2.9-1. AECOM, "Clinch River Site Traffic Assessment, Final Technical Report, Revision 0," Tennessee Valley Authority, March, 2015.

Reference 2.9-2. Flanders, Scott C., Notice of Availability of Memorandum of Understanding between U.S. Army Corps of Engineers and U.S. Nuclear Regulatory Commission on Environmental Reviews Related to the Issuance of Authorizations to Construct and Operate Nuclear Power Plants, September 19, 2008.