



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

June 15, 2020

STATE LIAISON OFFICERS: GEORGIA, SOUTH CAROLINA
FEDERALLY RECOGNIZED INDIAN TRIBES CONSULTED ON THE VOGTLE
ENVIRONMENTAL IMPACT STATEMENT

NOTIFICATION OF AN UPCOMING JUNE 23, 2020, PUBLIC MEETING TO DISCUSS A
PROPOSED CHANGE TO THE VOGTLE FINAL CULTURAL RESOURCE MANAGEMENT
PLAN (STC-20-046)

Purpose: To provide notice that the U.S. Nuclear Regulatory Commission (NRC) staff will conduct a public meeting to understand Southern Nuclear Operating Company's (SNC) plan to submit a proposed licensing action involving changes to routine maintenance activities of cultural properties along transmission line corridors.

Background: The SNC operates the Vogtle Electric Generating Plant (VEGP) Units 1 and 2 (Docket No. 50-424, License No. NPF-068; Docket No. 50-425, License No. NPF-081). The "Environmental Protection Plan (Nonradiological)" (Appendix B to the Vogtle Renewed Operating License No. NPF-68 includes maintenance activities of cultural properties along transmission line corridors (Agencywide Documents Access and Management System (ADAMS) Accession No. ML052840233). This Environmental Protection Plan addresses environmental issues that had been identified and which required study or license conditions to resolve concerns and assure adequate protection of the environment.

Discussion: The "Environmental Protection Plan (Nonradiological)" requires that routine maintenance activities in the area of cultural properties along transmission line corridors will be in accordance with the SNC's Final Cultural Resource Management (FCRM) Plan. The pre-submittal public meeting is to discuss the SNC's plan for a proposed licensing action to change the VEGP Units 1 and 2, FCRM Plan. The proposed licensing action is to change the routine maintenance activities in the area of cultural properties (i.e., Indian burial site, plantation buildings, etc.) along the transmission line corridors. Specifically, SNC will propose to inspect the cultural properties on "foot" in lieu of by "aircraft."

The "Applicant's Environmental Report Operating License Renewal Stage for Vogtle Electric Generating Plant Units 1 and 2," Southern Nuclear Operating Company (Docket No. 50-424 – License No. NPF-068 and Docket No. 50-425, License No. NPF-081), June 2007, (ADAMS Accession No. ML071840357), includes maps that show the location of the VEGP site and the transmission lines. It also describes cultural and archeological resources. An excerpt of the applicant's environmental report that describes the cultural and archeological resources is enclosed with this letter (ADAMS Accession No. ML20153A482).

This is a Category 1 public meeting: The public is invited to observe this meeting and will have one or more opportunities to communicate with the NRC after the business portion of the meeting but before the meeting is adjourned. The meeting is scheduled for June 23, 2020,

from 9:00 a.m. – 11:00 a.m. (Eastern Daylight Time) and will be held by Skype and teleconference.

The NRC also posts its meeting information and updates to meeting information at: <https://www.nrc.gov/pmns/mtg>. The current meeting information is provided below:

Teleconference phone number: (301) 415-0333

Pass code: 1591327#

Link using Skype: <https://skype.nrc.gov/meet/john.lamb/TKD0L9RK>

Meeting number: 1591327

Link to obtain a local Number: <https://skype.nrc.gov/dialin?id=1591327>

If you have any questions regarding the public meeting or this correspondence, please contact the individual named below:

POINT OF CONTACT: John Lamb
TELEPHONE: (301) 415-3100

E-MAIL: John.Lamb@nrc.gov

Sincerely,

/RA/

Lizette Roldan-Otero, Ph.D., Acting Chief
State Agreement Liaison Programs Branch
Division of Materials Safety, Security, State,
and Tribal Programs
Office of Nuclear Material Safety
and Safeguards

Enclosure:
As stated

SUBJECT: NOTIFICATION OF AN UPCOMING JUNE 23, 2020, PUBLIC MEETING TO DISCUSS A PROPOSED CHANGE TO THE VOGTLE FINAL CULTURAL RESOURCE MANAGEMENT PLAN (STC-20-046)

DATE: June 15, 2020

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ADAMS Accession No. ML20153A470 (Package)		ML20153A473(Letter)		*via email
OFFICE	NRR/DORL/LPL2-1	NRR/DORL/LPL2-1B	NMSS/MSST/MST	NMSS/MSST/MST
NAME	JLamb*	MMarkley*	JFirth	DAiley*
DATE	6/1/2020	6/9/2020	6/9/2020	6/10/2020
OFFICE	NMSS/MSST/SLPB			
NAME	LRoldan-Otero*			
DATE	6/15/2020			

OFFICIAL RECORD COPY

**Applicant's Environmental Report
Operating License Renewal Stage**

for

**Vogtle Electric Generating Plant
Units 1 and 2**

Southern Nuclear Operating Company

**Docket No. 50-424
License No. NPF-068**

and

**Docket No. 50-425
License No. NPF-081**

June 2007



Figure 2.1-1 50-Mile Vicinity

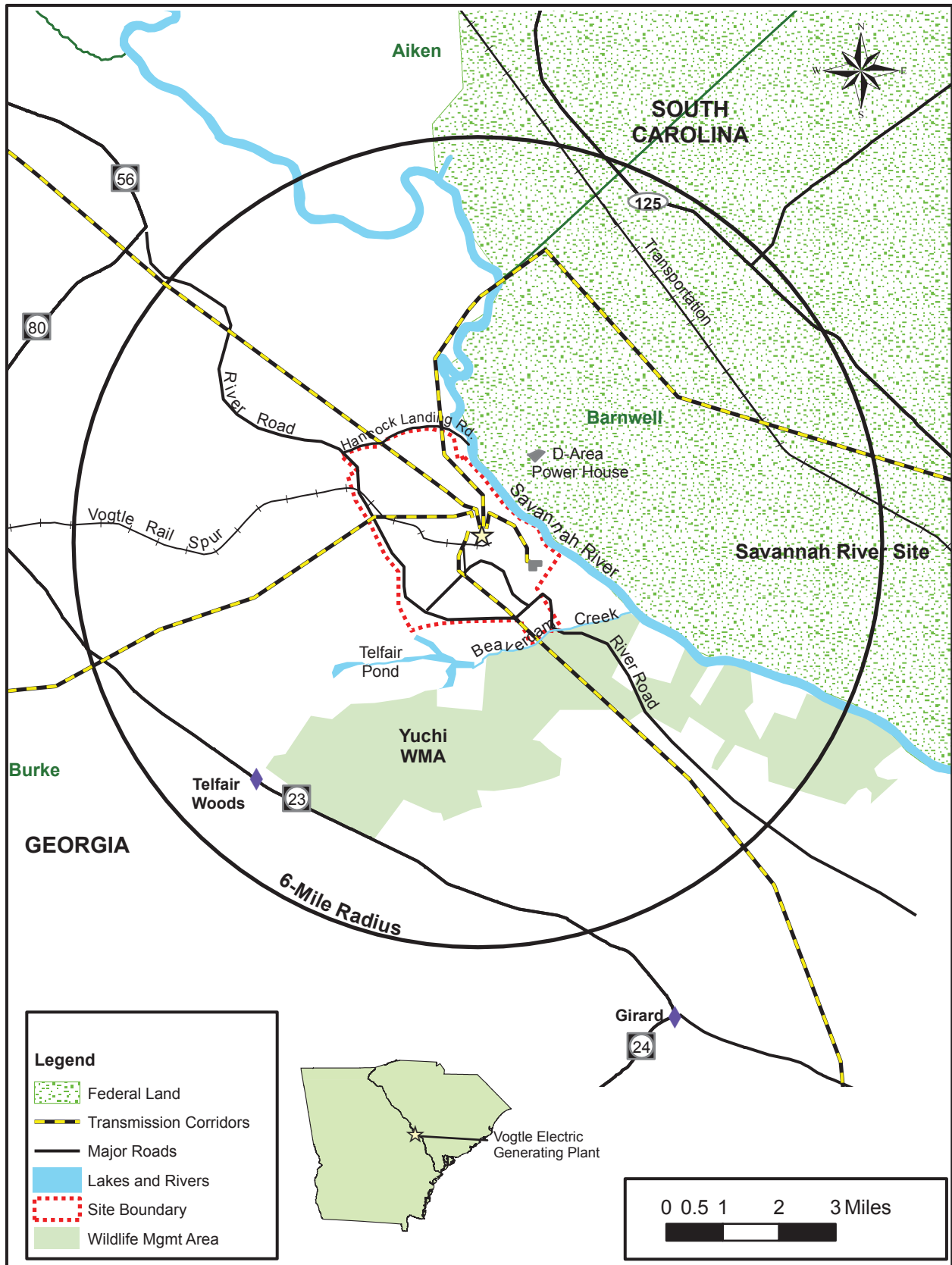


Figure 2.1-2 6-Mile Vicinity

2.11 Cultural Resources

The Central Savannah River Area is one of the oldest and most historically rich areas of the state. Colonists led by James Oglethorpe settled Savannah in 1733 and Augusta in 1736. Native Americans and early settlers used the Savannah River as a major transportation route between the Coast and the Piedmont. Burke County is one of Georgia's original eight counties, and was named for Edmund Burke, an English spokesman for American liberty.

SNC has initiated informal discussions with the Georgia State Historic Preservation Office (SHPO) regarding the construction of proposed new units, and the license renewal process. Agreement has been reached on management of cultural resource issues and documentation of the terms of the agreement should be available by the end of the summer 2007. No new cultural resource issues are anticipated as a result of license renewal activities. Existing commitments and monitoring for cultural resources will continue through the renewed license period.

Historic or Archaeological Sites in the Vicinity of the VEGP Site

The Environmental Report (GPC 1972) and the Final Environmental Statement (FES) (AEC 1974) describe the known historic resources in the area in the early 1970s. Shell Bluff Landing is approximately 7 miles north-northwest of the VEGP site. It has both historic and archaeological significance. It was the site of the original grave of Dr. Lyman Hall, a signer of the Declaration of Independence. His body was later reinterred in Augusta. The original ER also reports that Shell Bluff Landing was important during the era of steamboat river traffic and was fortified during the War Between the States. Shell Bluff takes its name from a large bed of fossils of the giant oyster (*Crassostrea gigantissima*) found there. This bed likely was formed during the Eocene epoch when the coastal plain of Georgia was under the Atlantic Ocean. The site of an Indian village with artifacts dated from 4,000 years ago lies between Shell Bluff and Boggy Gut Creek, approximately 7.5 miles from VEGP. (GPC 1972)

Seven sites in Burke County are on the National Register of Historic Places (Table 2.11-1). One National Register listed building, the Sapp Plantation, is within 10 miles of VEGP. The SRS, located directly across the Savannah River from VEGP, is the only other historical site within 10 miles determined to be eligible for listing, is directly across the Savannah River from VEGP, in South Carolina. Twenty-two archaeological sites on the SRS and within 10 miles of VEGP have been determined to be eligible for listing.

Since the original ER was written, two important discoveries have been made near the Vogtle site and are discussed below.

The University of South Carolina Institute of Archaeology and Anthropology is excavating a prehistoric site on the Savannah River in Allendale County, approximately 15 miles downstream

of the Vogtle property. Material from the site has been tentatively dated to 50,000 years ago (Powell 2004). If the dating techniques are accurate, the site, known as the Topper site, provides the earliest evidence of humans on the North American continent.

In 1983, during construction of the VEGP intake structure, the fossil of a 40-million-year-old whale species was uncovered in the Blue Bluff marl approximately 30 feet below ground surface. The skeleton of the whale, now known as *Georgiacetus vogtlensis*, is housed at the Georgia Southern University Museum in Statesboro, Georgia. (Reuters Limited 1998)

Historic or Archaeological Sites on the VEGP Site

In 1973 an archaeological survey of the VEGP site was performed under the direction of the Georgia State Archaeologist and the Georgia Historical Commission and submitted to the U.S. Atomic Energy Commission (the predecessor agency to the NRC). The survey identified seven archaeological sites (GPC 1972) (New South Associates [NSA] 2006). Four sites are along the river bluff, south of the barge canal. One was destroyed during construction of the barge slip. This site is the location of the Brown Cabin, which apparently also was destroyed during construction. The remaining two sites are shown to be on the plateau west of Mallard Pond on the maps in the 1973 report, however, the Universal Transverse Mercator (UTM) coordinates for these two sites do not place them in the location shown on the report map (NSA 2006). Based on the 1973 study the State Archaeologist considered that the archaeological resources at the VEGP site had been sufficiently characterized (GPC 1972; amendment 3, 2/27/1974).

In 2005 NSA surveyed VEGP property likely to be disturbed during construction of proposed new units. The survey identified 10 new archaeological sites (3 historic and 7 prehistoric) and 7 isolated finds (NSA 2006). None of the seven sites identified in the 1973 survey were examined during the 2005 survey. Two of the new sites are eligible and two are potentially eligible for inclusion on the National Register of Historic Places. The rest are recommended ineligible. Table 2.11-2 provides brief descriptions of the sites.

Native American Cultural Resources and Concerns

No federally-recognized tribes reside in the state of Georgia. Through OCGA 44-12-300, the state of Georgia officially recognized the following tribes of Georgia as legitimate American Indian tribes (500 Nations 2005):

- The Georgia Tribe of Eastern Cherokee, P.O. Box 1015, Cummings, Georgia 30028
- The Lower Muscogee Creek Tribe, Route. 2, Box 370, Whigham, Georgia 31797
- The Cherokee of Georgia, Saint George, Georgia 31646

Native Americans that settled in the Burke County area include a band of Chickasaw that "lived near Augusta from about 1723 to the opening of the American Revolution: (Georgia Indian

Table 2.11-2. Historic or Archaeological Sites Identified During a 2005 Survey of the VEGP Site

Site Number / Location	Description	Eligibility
9BK414; on plateau W of Mallard Pond	Homesite, likely the W. M. Buxton home	
9BK415; just W of railroad cut and approximately 2000 ft E of the nearest site boundary	Homesite identified from a 1989 topographic map that noted a home and outbuilding	
9BK416; on river bluff N of intake structure	Large multi-component prehistoric site	Eligible
9BK417; N of road to barge landing and intake	Liquor still	
9BK418; overlooking headwaters of Mallard Pond; composed of dirt road and landfill pit	Undiagnostic lithic scatter	
9BK419; under transmission line from switchyard to Plant Wilson	Woodland prehistoric site	Potentially eligible
9BK420; under transmission line to Plant Wilson on ridge overlooking Savannah River	Undiagnostic lithic site	Potentially eligible
9BK421; under SCE&G transmission line; bench of a ridge side overlooking Savannah River	Undiagnostic lithic scatter	
9BK422; near the training center overlooking Beaverdam Creek	Small scatter of historic and prehistoric artifacts; disturbed by logging and clearcutting	
9BK423; on a small bench above the floodplain N of the intake structure	Multi-component prehistoric campsite	Eligible
Source: NSA 2006.		

atmosphere. Provision is made during cold weather to direct all of the circulating water flow to the periphery of the cooling tower. This directs the total heat load to the peripheral region. Air flowing through the peripheral spray is thus preheated which allows deicing in the central cooling tower spray region.

Cooling tower make-up is drawn from the Savannah River through the weir arrangement described previously into the intake canal, then into one of four intake bays (two per cooling tower), each equipped with a vertical turbine pump with a pumping capacity of 22,000 gpm. The makeup water is supplied to the cooling tower basin. The river water makeup pumps supply water to the circulating water system to replace water losses due to evaporation, drift, and blowdown. Normally, only one or two of the makeup pumps are operating, depending upon the makeup demand.

Sodium hypochlorite and sodium bromide, are injected into the circulating water system to minimize fouling in the cooling towers and condensers. The residual oxidants are removed by addition of a reducing agent (typically ammonium bisulfite) into the blowdown mixing sump prior to discharge. Compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements is determined by sampling and analysis (GDNR 2004).

3.1.2.2 Groundwater Resources

VEGP has nine groundwater wells that variously supply the nuclear service cooling water system, plant water treatment system, fire protection system, potable and sanitary water systems, and the landscape irrigation system. All the wells are permitted under a single groundwater withdrawal permit from the Environmental Protection Division of the GDNR (GDNR 2000). The permitted annual daily average withdrawal is 5.5 MGD. Between 2000 and 2004, the annual average daily withdrawal for all purposes was approximately 1.05 MGD (SNC 2000a, b, 2001a, b, 2002a, b, 2003a, b, 2004a, b, 2005b).

The site's main production wells are MU-1 and MU-2A. Well MU-1 has a 2,000 gpm pump capacity and is the primary well. MU-2A has a 1,000 gpm pump and is the backup well. These wells are approximately 2,100 ft apart. MU-1 is approximately 1,000 ft from the eastern site boundary and the Savannah River. MU-2A is approximately 5,700 ft from the western site boundary and River Road. Both wells are in the Cretaceous aquifer. Each well, its capacity and its primary purpose are provided in Table 3.1-1.

3.1.3 Transmission Facilities

The FES (NRC 1985) identifies two 500-kilovolt (kV) and three 230-kV transmission lines that would be built to connect VEGP to the electric grid. A pre-existing line from Plant Wilson to the Goshen substation crosses the VEGP property. One of the 500-kilovolt lines would run west to

Plant Scherer, routed near, but not connected to, the Wadley substation. The other 500-kilovolt line would run south to the Thalmann substation, routed near, but not connected to, the Effingham substation. Two of the 230-kV lines would run in the same corridor to the Goshen substation just south of Augusta. These lines would parallel the existing Wilson-Goshen line. The remaining 230-kV line would run north then east to a substation within the Savannah River Plant (now called the SRS, a DOE facility). The two 500-kV lines were to be connected to the Unit 2 switchyard; the 230-kV lines were to be connected to the Unit 1 switchyard.

Subsequent to the publication of the FES, two changes were made to the transmission system.

- The Wilson-Goshen line was rerouted to connect to VEGP instead of Wilson. The segment between Wilson and VEGP was used to connect the two plants together. Furthermore, a connection was made to this VEGP-Goshen line to connect to the Augusta Newsprint substation. This line is now known as the Augusta Newsprint line. The short segment to Wilson is known as the Wilson line.
- The Thalmann line was connected to the West McIntosh substation and is now known as the West McIntosh (Thalmann) line.

As a result of these system changes, the transmission lines of interest for this report are somewhat different than those described in the FES, as indicated below. Figure 3.1-2 is a map of the transmission system of interest.

- Scherer – This 500-kV line runs generally westward to Plant Scherer, north of Macon, Georgia. Built in 1986, it is 154 miles long and in a corridor that is mostly 150 ft wide, but up to 400 feet wide in some locations. The terrain is flat to rolling.
- West McIntosh (Thalmann) – Running 69 miles to the south, this 500-kV line, in a 150-ft wide corridor, connects VEGP to the West McIntosh substation near Plant McIntosh, just north of Savannah, Georgia. It then continues for 90 miles to its termination at the Thalmann substation near Brunswick.
- Goshen (Black) and Goshen (White) – The two 230-kV Goshen lines connect to the Goshen substation approximately 19 corridor miles from VEGP. The corridor is 275 ft wide and the lines were built in 1986. These two lines, plus 17 miles of the Augusta Newsprint line, share the corridor. The terrain is generally flat.
- Augusta Newsprint – The Augusta Newsprint substation is approximately 20 corridor miles from VEGP. The corridor is 275 ft wide until the 230-kV Augusta Newsprint line diverges from the Goshen lines at 17 miles and is 100 to 125 ft wide for the remaining distance. The Augusta Newsprint line was built in 1983. The terrain is generally flat.
- SCE&G – Built in 1986, this 230-kV line runs north and east for 4.5 miles to cross the Savannah River and then an additional 17 miles to a substation operated by SCE&G. The

corridor in South Carolina is 100 ft wide and the Georgia segment is 125 ft wide. The part of the corridor in South Carolina is wholly contained on the Savannah River Site and is maintained by South Carolina Electric and Gas. The terrain is mostly flat.

- Wilson – This 1.4-mile long transmission line is wholly contained on GPC property. It connects VEGP to Plant Wilson at 230-kV. The corridor is 150 ft wide. The Wilson line provides offsite power in the event of an emergency.

In total, the transmission lines considered in Section 4.13 are contained in approximately 360 miles of corridor that occupy approximately 7,200 acres. The corridors pass through land that is primarily agricultural and forest. The Scherer line crosses the Oconee National Forest, northeast of Plant Scherer. The West McIntosh (Thalmann) line crosses the Yuchi WMA, the Tuckahoe WMA, and Ebenezer Creek Swamp near the West McIntosh plant. The lines cross numerous county, state, and U.S. highways after leaving the switchyard. Corridors that pass through farmlands generally continue to be used as farmland. Southern Company plans to maintain these transmission lines, which are integral to the larger transmission system, indefinitely. These transmission lines will remain a permanent part of the transmission system after VEGP is decommissioned.

The transmission lines were designed and constructed in accordance with the National Electrical Safety Code (NESC) and other industry guidance that was current when the lines were built. Ongoing surveillance and maintenance of these transmission facilities ensure continued conformance to design standards. These maintenance practices are described in Section 4.13.

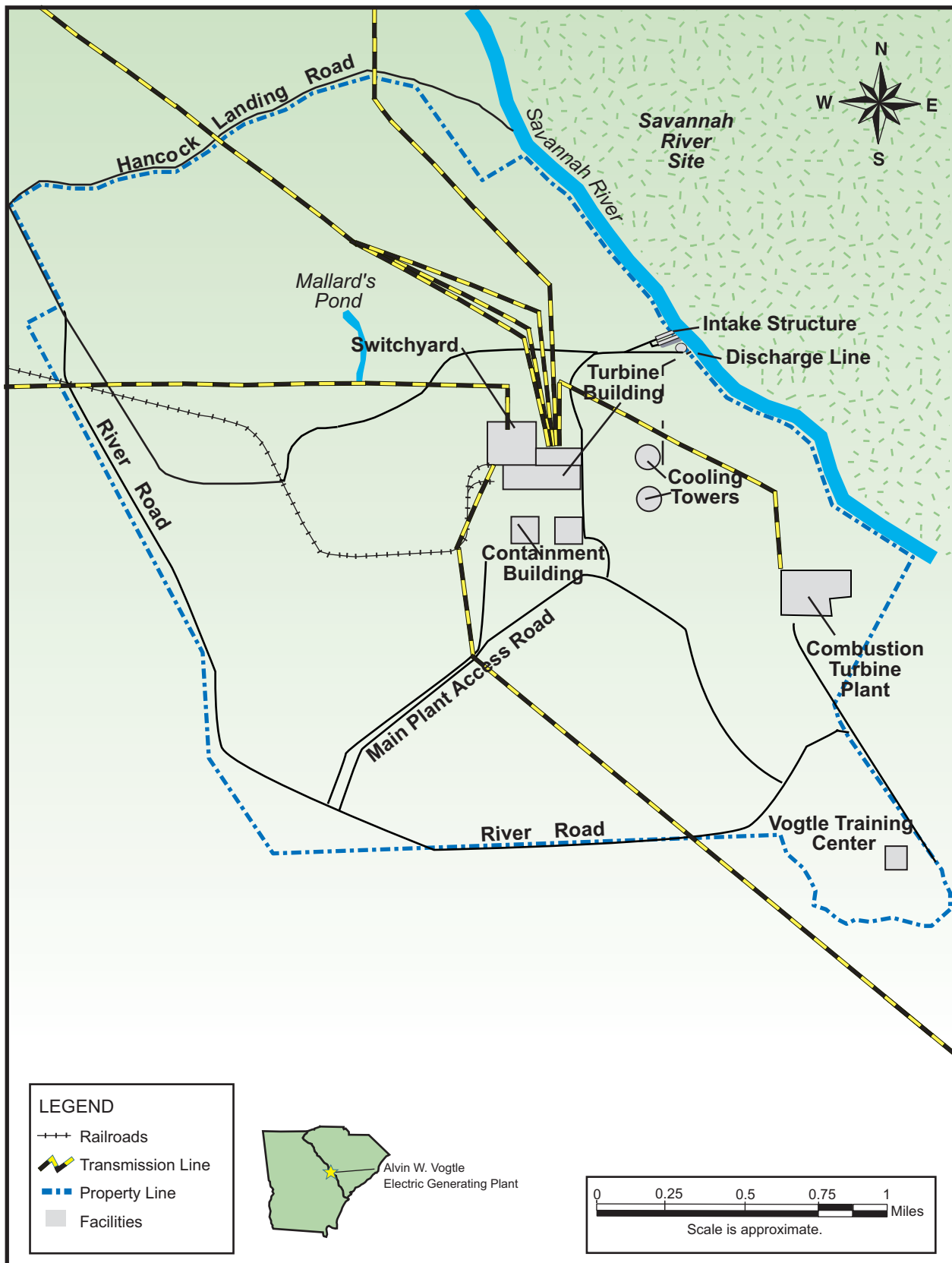


Figure 3.1-1 General Plant Layout

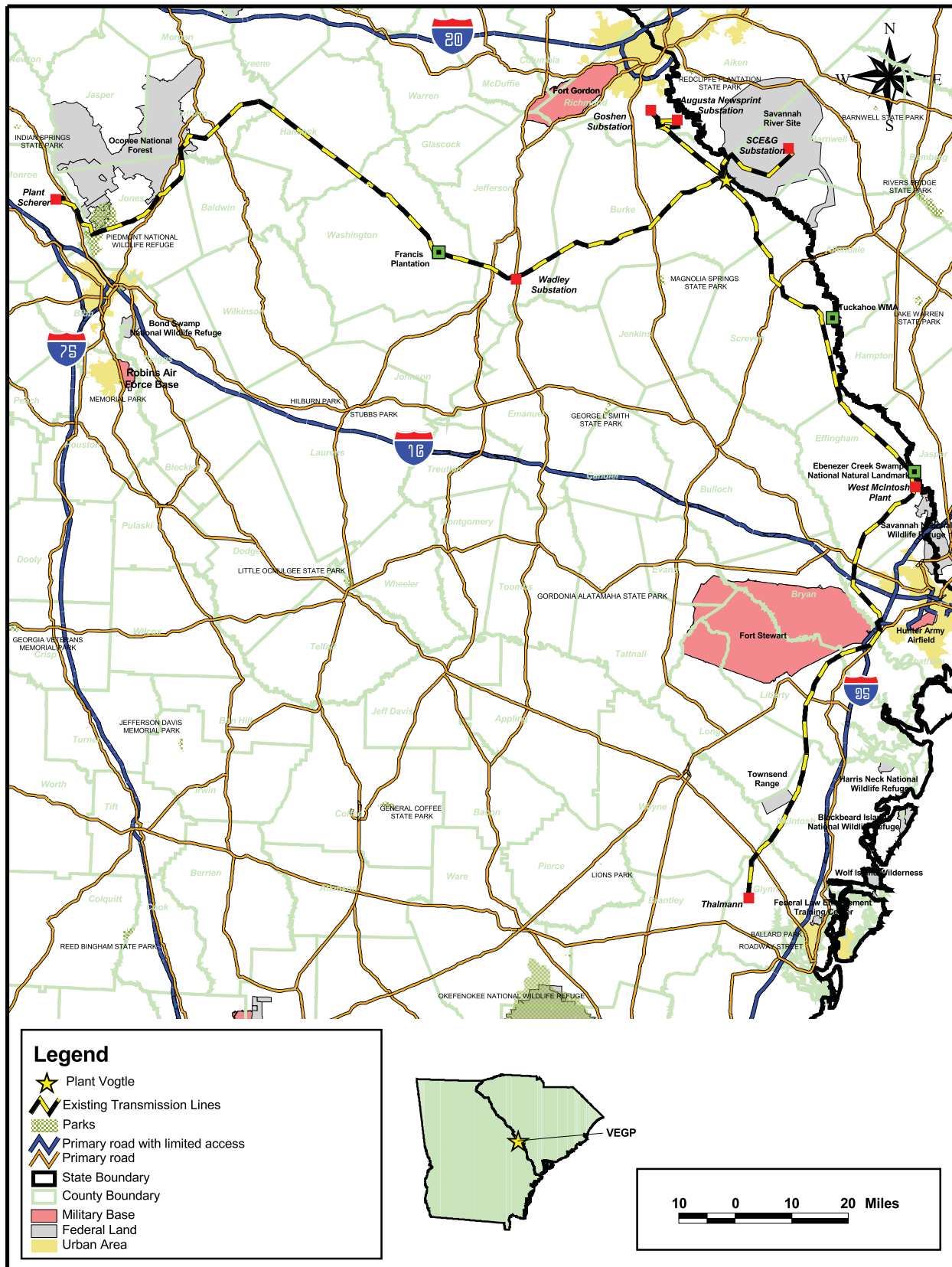


Figure 3.1-2 Transmission System