

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
WEST POINT-SEVERCORR 161-KV TRANSMISSION LINE
LOWNDES AND CLAY COUNTIES, MISSISSIPPI

The Proposed Action

Tennessee Valley Authority (TVA) proposes to supply power to the new SeverCorr 161-kilovolt (kV) Substation that will serve the planned SeverCorr Inc. steel mill in Lowndes County, Mississippi. TVA would rebuild 14.7 miles of double-circuit 161-kV transmission line on mostly existing right-of-way and construct 5.8 miles of new 161-kV transmission line on new right-of-way 100 feet in width between TVA's West Point 161-kV Substation in Clay County, Mississippi, and the new SeverCorr 161-kV Substation in Lowndes County. An additional 12.5 feet of new right-of-way would be required along the existing transmission line right-of-way. The proposed transmission line would be built using mostly double-pole (DHS-1G) steel structures. Single-pole structures (S-1G) would be used in the immediate vicinity of the West Point 161-kV Substation, and a 3-pole tap structure would be installed between two S-1G structures in the existing West Point-Columbus 161-kV Transmission Line right-of-way. New right-of-way would occupy about 92.6 acres.

An additional proposed TVA action is to assist SeverCorr financially with its purchase of weight scales, radiation-detection equipment, office furniture, computers, printers, and mobile equipment. The amount of this assistance would be about one-tenth of 1 percent of the entire cost of the project and would not materially affect SeverCorr's project plans. This action would have no physical environmental impacts beyond those due to the construction and operation of the plant. Moreover, the equipment to be purchased would not be central to the manufacturing process and thus would have minimal impact in itself.

TVA has prepared an Environmental Assessment (EA) that is incorporated by reference.

Background

The purpose of the proposed action is to provide a stable and reliable supply of electricity to the SeverCorr 161-kV Substation and SeverCorr steel mill at the Lowndes County-Golden Triangle Megasite Industrial Park as requested by SeverCorr Inc. The mill represents 250 megawatts (MW) of load and will include a 130-MW direct current arc furnace. To meet this load, SeverCorr is constructing a new 161-kV substation on the megasite adjacent to its new mill. The arc furnace load cannot be served from TVA's existing facilities because the harmonics (sudden and large voltage fluctuations) on the transmission line caused by the arc furnace process would significantly reduce the power quality to any other existing transmission line source connection. The construction of a new 161-kV transmission line from the West Point 500-kV Substation (the closest adequate power source in the area) to the new SeverCorr 161-kV Substation would meet these requirements.

Alternatives

While planning this project, TVA considered various means of providing a power source to the SeverCorr 161-kV Substation and SeverCorr mill. Because the mill would require a direct feed

to serve the 130-megawatt arc furnace load, the most practical power source was the West Point 500-kV Substation. This substation also has the capacity to provide a 161-kV indirect feed to the SeverCorr 161-kV Substation. The proposed action (the Preferred Alternative) is the only alternative that would allow TVA to provide stable, reliable service.

During the development of the proposed action, TVA considered four alternative routes for the proposed transmission line. These routes run roughly north to south from TVA's West Point 161-kV Substation to the site of the planned SeverCorr 161-kV Substation. The proposed transmission line right-of-way was identified as preferred based on a number of factors including public input, reduction of potential environmental impacts, less property-ownership impacts, and avoidance of cemeteries, schools, and other cultural features. This Preferred Alternative is analyzed in detail in the EA.

Impacts Assessment

The EA concludes that the impacts to terrestrial plant and animal communities would be minor and insignificant. No uncommon plant or animal communities occur in the project area. Approximately 20 acres of forested land along the 20.5-mile transmission line would be converted to nonforested habitats. The forest in this area is already heavily fragmented, and the impacts of the resulting forest loss and increased forest fragmentation would be small. Although federally listed as endangered and threatened species are known from Lowndes and Clay Counties, none would be affected by the proposed action. Several state-listed species have been reported from the project area, and potential habitat along the existing transmission line and the proposed section of transmission line was identified for some of these species. No adverse impacts to state-listed terrestrial or aquatic animal species are anticipated. Populations of five state-listed terrestrial plant species were located within the proposed 161-kV transmission line route right-of-way. Some individual plants would be avoided, while others would be impacted during the construction of the transmission line. However, with the implementation of Best Management Practices (BMPs) and avoidance where possible, the loss of these plants would not be considered significant.

The proposed transmission line and access roads would cross 46 separate wetland areas with a total area of about 56.4 acres. Approximately 29 acres of wetlands comprised of emergent and scrub-shrub are located in the existing transmission line rights-of-way. These wetlands are already periodically cleared by mowing or other methods during routine right-of-way maintenance. Approximately 27.4 acres of wetlands would be located along new transmission line rights-of-way. These wetlands are comprised of approximately 9 acres forested and 18.4 acres emergent and scrub-shrub. Of the forested wetland acreage that TVA would clear, 4.88 acres are considered of very high quality or of concern regionally and/or statewide (Category 3) and would be converted to scrub-shrub. TVA's practice is to mitigate for the loss of Category 3 forested wetlands at a 1:1 ratio as recommended by the 1990 Memorandum of Agreement between the United States Environmental Protection Agency and United States Army Corps of Engineers Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines. No mitigation is recommended for impacts to scrub-shrub or emergent wetlands, as these areas would be spanned by proposed transmission lines and would not be filled or converted to other wetland types. With mitigation, impacts resulting from the proposed project were determined to be insignificant.

The project area drains to the Tennessee-Tombigbee Waterway via tributaries of Catalpa Creek and Gilmer Creek. The transmission line would cross 18 perennial streams, 6 ponds, Columbus Reservoir twice, 18 intermittent streams, and 34 wet-weather conveyances. Twelve of these intermittent and wet-weather conveyance crossings would occur on the SeverCorr 161-kV Substation property. Aquatic life is supported to varying degrees depending on the

type of watercourses in the project area. Town Creek is on the state 303 (d) list for aquatic life support due to biological impairment. Tibbee Creek is listed due to aquatic life support and secondary contact from nutrients, organic enrichment/low dissolved oxygen, pesticides, sediment/siltation, and pathogens. Gilmer Creek is listed due to aquatic life support from unknown causes. BMPs and other streamside protection measures would be used to help ensure that the impacts of the transmission line construction, operation, and maintenance on area streams are minimized. With the implementation of these measures, impacts to streams, aquatic life, and water quality are expected to be insignificant.

Portions of the transmission line would be located in identified floodplains. Construction in these areas would not result in any increase in flood hazard, and the proposed action is consistent with the Executive Order on Floodplains. The project is compatible with current land uses, and the proposed action would not negatively affect prime farmland. Impacts to recreation activities, transportation, and visual aesthetics would be insignificant. A portion of one managed area (Tennessee-Tombigbee Columbus Reservoir Reservation) is crossed by the existing transmission line. New right-of-way along this section of the transmission line would require the clearing of approximately 1.5 acres of forest. Because vegetation obscures the view of the transmission line, minimal and insignificant visual effects to this managed area are anticipated. No parks or ecologically significant sites would be affected.

Eleven historic archaeological sites were identified during a survey of the project area. Six of these were previously identified sites that were not located within or adjacent to the proposed corridor. Five new sites are recommended ineligible for listing on the National Register of Historic Places (NRHP). Eighteen previously recorded and 10 previously unrecorded NRHP-listed historic properties were identified during a survey of the project area. Of the 18 NRHP-listed properties, 8 were considered ineligible for the NRHP due to the loss of integrity caused by alterations and/or damage, 8 had been destroyed since their initial recordation, and 2 would not be affected because of obstructed views. The 10 unlisted properties were determined not eligible for listing on the NRHP.

Mitigation

The siting process TVA used for the transmission line sought to avoid or limit potential environmental impacts where feasible. In addition to this effort, other mitigation measures have been identified during the review of the project. Many of these are standard measures that TVA routinely implements with all of its transmission line projects, such as the use of BMPs and other practices listed in the appendices of the EA. These include the establishment of streamside management zones to protect against adverse impacts to water quality and aquatic resources. The following mitigation measures will be implemented to reduce the environmental impacts that could result from the proposed action:

Protection of Terrestrial Plant Resources

- To avoid impacts to the population of 77 wild hyacinths, during construction and clearing of the right-of-way, appropriate BMPs including hand clearing or the use of low ground-pressure equipment will be implemented. Additionally, during future maintenance operations in the vicinity of both wild hyacinth populations, no herbicides will be sprayed during the reproductive cycle (April or May).

Invasive Plant Species

- The cogongrass population at the edge of TVA's existing transmission line right-of-way will be chemically treated with a herbicide mixture of Arsenal and glyphosate prior to any construction activities to preclude any expansion of the colonized area or the accidental introduction of the species into other areas. Treatment will be completed

before early spring or early summer to ensure that reproductive structures do not form; therefore, seeds cannot be transported by construction vehicles. Any excess fill dirt exhumed from the site of the cogongrass infestation will remain on site and not be transported outside the project area.

Protection of Aquatic Resources

- All intermittent and perennial watercourse crossings will be designated as Category A, Standard Stream Protection. Protection levels for each watercourse crossing are identified in Appendix VIII of the EA.
- Watercourses that convey only surface water during storm events (i.e., wet-weather conveyances or ephemeral streams) and that could be affected by the proposed transmission line route will be protected by standard BMPs. These BMPs are designed to minimize erosion and subsequent sedimentation in streams.

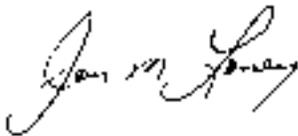
Wetland Mitigation

- To minimize impact to wetlands, BMPs will be implemented during construction and maintenance.
- Compensatory mitigation will be implemented for the 4.88 acres of Category 3 high-quality forested wetlands that will be converted to scrub-shrub and emergent wetlands.

Conclusion and Findings

The Final EA for this proposal concludes that construction and operation of the transmission line will not result in significant adverse impact upon the environment. This conclusion takes into account the implementation of the standard commitments such as the use of BMPs. It is also based on the implementation of the mitigation and avoidance measures mentioned above.

Environmental Stewardship and Policy has determined that the preparation of an Environmental Impact Statement is not required.



March 30, 2006

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Date Signed