

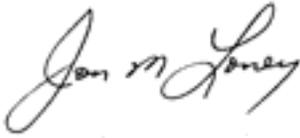
FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
ALLEN FOSSIL PLANT UNITS 1, 2, AND 3,
SELECTIVE CATALYTIC REDUCTION SYSTEMS FOR NITROGEN OXIDE CONTROL,
SHELBY COUNTY, TENNESSEE

The Tennessee Valley Authority (TVA) proposes to improve operation of the high dust selective catalytic reduction (SCR) systems installed on Units 1, 2, and 3 of Allen Fossil Plant (ALF) in order to optimize (e.g., achieve or exceed) expected performance levels. As designed, the 3 SCR units at ALF were expected to remove 90 percent of the emissions of the oxides of nitrogen (NO_x) at a 2 parts per million volume (ppmv) ammonia slip (TVA 2001). A Supplemental Environmental Assessment (EA) was prepared to assess the impact of operating the SCR units at higher ammonia injection rates while still meeting the environmental requirements for NO_x reduction in the permit and the recently finalized Clear Air Interstate Rule (CAIR).

Under the no action alternative, TVA would continue to operate the SCR units subject to the limitations of the commitments listed in the 2001 FONSI, including Commitment 3 which limits slip to 2 ppmv upon reactivation of the West Ash Pond. Testing on the SCR units has revealed that the plant operates at approximately 4 ppmv ammonia slip (as measured at 3 percent oxygen by volume), achieving approximately 92 percent NO_x reduction. The no action alternative would be unresponsive to the current purpose and need. Under the preferred alternative, the SCR units would be operated to achieve optimal NO_x reduction without interfering with the plant's ability to meet the 20 percent opacity level and the ammonia concentration threshold in wastewater (1 milligram per liter). The plant does not anticipate a need to operate at slip levels significantly higher than 4 ppmv. The preferred alternative would include year-round operation of all three ALF units under these conditions.

The proposed action was evaluated for potential impacts on air quality, transportation, solid and hazardous waste, and surface/waste water quality. Minor increases in ammonia deliveries would result in insignificant affects on the existing transportation network. No impacts are anticipated to fly ash or boiler slag marketing, utilization or disposal. Future increases in ammonia slip would be limited by the requirement to meet the opacity limit and the water quality standards for ammonia. The current analysis has determined that year-round operation of the ALF SCR systems, Units 1, 2, and 3, at slip rates higher than 2 ppmv would have minimal additional adverse impacts as compared to those operations described in the 2001 ALF SCR EA or to current operations as long as the plant remains in compliance with permit standards for effluent discharge and toxicity. Given that effluent toxicity and effluent discharge limits in the National Pollutant Discharge Elimination System (NPDES) permit will not be exceeded, the potential for impacts to water quality and toxicity to aquatic organisms from wastewater discharges is insignificant. The Supplemental EA concludes that the overall impact from optimizing the operation of the SCR control equipment should be a net improvement in air quality locally and regionally.

Based on the analysis in the attached TVA-prepared Supplemental EA and the identified modification to the mitigation measures in the 2001 SCR ALF EA, we conclude that implementation of the action alternative would not be a major federal action significantly affecting the environment. Accordingly, an Environmental Impact Statement is not required. Routine compliance with the permit standards for effluent discharge and toxicity dispenses with the need for Commitment 3 in the March 29, 2001, FONSI for the ALF SCR EA.



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Date Signed