

# SNCR - SELECTIVE NON-CATALYTIC REDUCTION FOR COAL-FIRED GENERATION



**PROJECT:** Fast-Track SNCR Installation for 705 MW Coal-Fired Power Plant

**CLIENT:** Major Fossil Fuel Power Plant

**LOCATION:** Carbo, VA

**SERVICES:** A/E Services

## DESCRIPTION

River Consulting worked with the client to create a plan and executed the fast-track project to meet EPA mandated emissions restrictions. Project management, multidiscipline engineering and construction management was provided for the Selective Non-Catalytic Reduction (SNCR) system.

The engineering and construction was divided into two project phases for execution. The team focused on design completion for project components based on the fabrication, construction and power outage schedules.

Phase one included day tank construction, truck receiving, SNCR skids and piping to unit boilers. Phase two consisted of the long term storage, rail track modifications, a rail receiving system and transfer pumps. All electrical and automation design was planned in conjunction with the construction schedule for controls and operation of equipment.

Additionally, the team worked to modify existing site conditions including rail modifications, hydro-excavation for underground utilities, road modifications, and relocation of buildings.

## PRINCIPAL FEATURES

- Engineered project to accommodate plant outage and fast-track schedule
- Modified existing site conditions to interface with new project equipment
- Designed 250,000 gallon long term storage tanks for urea solution to keep the solution temperature between 70-90°F
- Facility was designed to accommodate rail cars capable of holding 18,000 to 20,000 gallons each
- Designed 35,000 gallon day tanks to hold seven days of storage
- Addition of an SO<sub>3</sub> manufacturing skid for fly ash conditioning
- Provided construction management services for simultaneous construction of rail spurs and long term storage while installing day tanks and SNCR skids
- Coordinated site power supply with fuel blending and SO<sub>3</sub> mitigation projects
- Designed and routed pipe rack through the plant to avoid interferences



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