

Plain Language Summary for New Source Review (NSR) Initial Application for Air New Source Review Permit Number 176607

The following summary is provided for this pending air permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

South Texas Electric Cooperative, Inc. (STEC) (CN600131254) has submitted an application for initial permit number 176607. The Red Gate Power Plant (Facility) (RN106534407) will produce/manufacture electricity for the Texas grid at 23601 W FM 490, Edinburg, Hidalgo County.

This permit will authorize the Facility to resume normal operations to supply power to the Texas electric grid. Normal operations entail the use of natural gas-fired reciprocating internal combustions engines that produce about 224 MW for the electric grid. Emergency equipment are included in this permit in instances of grid failure or a fire. STEC has listed in the application the pollutants and amounts that will be emitted for each facility. Below is the total amount for each pollutant that is proposed to be emitted each year for all the facilities.

Pollutant	Proposed Emissions (tons per year)
Nitrogen Oxides (NOx)	244.93
Carbon Monoxide (CO)	312.73
Volatile Organic Compounds (VOCs)	312.73
Sulfur Dioxide (SO ₂)	23.13
Particulate Matter (PM)	162.94
Particulate Matter less than 10 Microns in Diameter (PM ₁₀)	162.94
Particulate Matter less than 2.5 Microns in Diameter (PM _{2.5})	162.94
Sulfuric Acid (H ₂ SO ₄)	3.68
Formaldehyde	20.50
Ammonia (NH ₃)	113.00

The facilities will be controlled by using selective catalytic reduction devices and oxidation catalysts to reduce emissions of NOx, NH₃, CO, VOCs, and HAPs. The diesel-fired emergency engines will use low sulfur diesel fuel to reduce SO₂ and H₂SO₄ emissions. The diesel-fired engines are also limited to 100 hours per year of non-emergency operations.