Electric Generating Unit Standard Permit
Technical Review

Company	**Elmax Generating LLC**	Registration Number	**167032**
City	**Huffman**	Project Number	**386094**
County	**Harris**	Regulated Entity Number	**RN111366449**
Project Type	**Standard Permit Application**	Customer Reference Number	**CN606089365**
Project Reviewer	**Amanda Andrews**	Project Received Date	**December 13, 2024**
Site Name	**Elmax Power Station**		

Project Description
Elmax Generating, LLC (Elmax) owns the Elmax Power Station (the Plant), located near Huffman, Harris County, Texas. This submittal for a change to the registration will add four combustion turbine generators (CTG) to the permitted sources, as well as address project updates that have arisen since issuance of the registration, and correct issues identified with the Standard Permit Maximum Emission Rates Table. The additional turbines will be identical to the other turbines to be constructed at the Plant, that is, simple cycle, natural gas fired, General Electric (GE) LM6000 series aeroderivative or similar aeroderivative with comparable specifications, nominally rated at 50 megawatts (MW) output. The Plant will be comprised of ten natural gas-fired simple cycle combustion turbine generators and ancillary equipment. The combustion turbines to be installed will be General Electric (GE) LM6000 series aeroderivative or similar aeroderivative with comparable specifications, with a nominal 50 megawatts (MW) output. In each of the simple cycle units, ambient air will be drawn in through the air inlet and enter the compressor section of the CTG. Water injection systems will be employed for power augmentation, to inject atomized water into the airflow on the compressor side of the unit, increasing the mass flow. Rapid evaporation of the water spray will cool the airflow, allowing higher inlet air mass flow rates, resulting in the CTG recapturing output capacity that would be lost during hot summer conditions. Natural gas will be mixed with the compressed inlet air and combusted in the combustor section of the CTG. A water injection system will be used to reduce the emissions of NOx formed in the combustors. The hot combustion gases will expand through the unit across turbine blades, causing rotation of the turbine shafts, which in turn drive the compressor sections and an electric generator, producing electricity. The hot exhaust will then pass through an oxidation catalyst to reduce CO and VOC emissions and subsequently pass through a selective catalytic reduction (SCR) system to reduce NOx emissions before exiting though a stack (Emission Point Numbers [EPNs] CT-1 through CT-10). . Operations will comply with NSPS KKKK requirements for turbines, and allocations for the NOx Mass Cap and Trade Program will be obtained as necessary. The company will obtain a Title V permit.

Compliance History Evaluation	
A compliance history report was reviewed on:	**December 17, 2024**
Site rating & classification:	**Unclassified**
Company rating & classification:	**Unclassified**

General Rules Check	**Comments**
Does the project trigger PSD or NA review?	* No
Is the facility taking an operational limit to meet the Standard Permit? If yes, describe how this project is not circumventing major NSR permitting. (30 TAC §116.110)	* No

Standard Permit Rules Check	**Comments**
Type of unit being authorized	*Turbine(s)
Fees	* ≥ 1 MW $900
Combined Heat and Power (if taking credit)	NA

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Fuel	* Natural gas (<10 grains total sulfur per 100 dscf)
NO_x emission limitation (in lb/MWh)	* East Texas * >10 MW per unit *>300 hrs/yr – 0.14 lb/MWhr
Maintenance, Startup, and Shutdown	Maintenance activities will be authorized either by PBR or De Minimis. Emissions from planned startup and shutdown will be authorized by this permit. Combustion emission factors used when developing the standard permit included enough conservatism to account for incidental increases that could occur during startup and shutdown.

Amanda Andrews December 19, 2024 Michael Partee December 20, 2024

Project Reviewer Date Section Manager Date
Amanda Andrews Michael Partee