Initial Title V Air Operation Permit
Permit No. 0330286-002-AV

APPLICANT

The applicant for this project is Gulf Power Company. The applicant's responsible official and mailing address are: Michael Burroughs, Vice-President, Power Generation and SPO, Gulf Power Company, One Energy Place, Pensacola FL 32520-0100.

FACILITY DESCRIPTION

The applicant operates the Perdido Landfill Gas-to-Energy Facility, which is located at 12196 Beulah Road, Cantonment, Florida.

The facility is permitted for three Caterpillar G3520C spark ignition internal combustion engines and auxiliary equipment. Two engines have been installed and operating. A third engine authorized by permit 0330286-001-AC, issued January 7, 2010 has yet to be constructed. Each engine / generator set has an approximate electrical power output of 1600 kilowatts and is rated at 2,233 brake horsepower and 6509 nominal Btu/brake horsepower-hour at 100% load. Each engine is designed for low NOx emissions combusting low pressure and low Btu landfill gas and is equipped with the following: an air inlet filter; an exhaust silencer; a battery and charger; a lube oil system; a horizontal core radiator; an individual gas meter and a non-resettable hour meter. If the landfill gas flow is too low or the landfill gas quality (Btu content) is too low the engines automatically shut off.

The landfill gas is piped to a fuel compressor, where gas flow, temperature and Btu content are measured. A liquid removal system traps liquids and large particulates and return them to the landfill. Downstream of the compressor is a cooler with a 0.4 micron filter, to further remove condensate. The gas condition system is equipped with an automatic shut-off valve to close the gas supply upon engine shutdown. The engines combust the conditioned landfill gas, with the electric power output added to the distribution network. During periods of malfunction, maintenance and repair of the engines or excess landfill gas, the landfill gas stream is routed to the Perdido Landfill Flare (Permit 0330246-003-AV, Emissions Unit 001), owned by the Escambia County Board of County Commissioners.

Auxiliary equipment includes oil equipment (day oil, new oil and waste oil storage tanks), electrical equipment (generator controls, switchgear, transformers, motor control center, relays and breakers), an air compressor, oil pumps and a coolant tank.

Approximately two 3,500 square foot buildings (one built, one planned), constructed of masonry block or similar building material, house the engines, generators, oil equipment, electrical equipment, landfill gas conditioning equipment and personnel operations.

EMISSIONS (TPY) BY OPERATING ALTERNATIVES	PERDIDO LF EMISSIONS ONLY: ALL LFG FLARED PLUS INSIGNIFICANT NO ENGINES RUNNING	PERDIDO LF EMISSIONS ONLY: LFG FLARED PLUS INSIGNIFICANT WHILE TWO GULF POWER ENGINES ARE RUNNING	TOTAL EMISSIONS BOTH PERDIDO LF & GULF POWER: LFG FLARING PLUS INSIGNIFICANT PLUS TWO ENGINES RUNNING	MAX
CO	220	106	336	336
NO_X	40	14	63	63
HCl	2	1	1	2
HAPS	5	3	4	5
NMOC	25	12	12	25
PM	10	5	19	10
PM_{10}			1	1

SO_2	8	4	11	11
VOC	6	2	6	6

Flaring - Emissions from Escambia County Board of County Commissioners Perdido Landfill
Engines - Emissions from Gulf Power Gas to Energy Facility

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION
The purpose of this permitting project is for an initial Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit received March 15, 2011
Additional Information Request dated March 15, 2011
Additional Information Response received September 8, 2011

PRIMARY REGULATORY REQUIREMENTS
Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).
Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).
PSD: The facility, by itself without emissions from the landfill, is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.
NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
NESHAP: The facility does not operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.
CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

PROJECT REVIEW
Initial Title V permit for the above referenced facility following construction permit 0330286-001-AC, issued January 7, 2010.

CONCLUSION
This project is for the initial Title V air operation permit. This initial Title V air operation permit is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.