PERMITTEE

Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0100

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. 0050014-020-AC
Lansing Smith Generating Plant Boilers 1 and 2
Sulfur Dioxide Emission Standards/Controls

This is the final air construction permit, which establishes a sulfur dioxide (SO_2) emission standard for Boilers 1 and 2, authorizes installation of dry sorbent injection (DSI) systems and authorizes physical changes to the electrostatic precipitators and plant components to facilitate installation of the DSI systems. The proposed work/change will be conducted at the existing Lansing Smith Generating Plant, which is a fossil fuel steam generating electrical production plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Bay County at 4300 County Road 2300, Southport, Florida. The UTM coordinates are Zone 16; 623.74 Kilometer (km) East and 3349.11 km North.

NOTICE AND PUBLICATION

The Department distributed a draft minor air construction permit package on July 30, 2012. The applicant published the Public Notice in The News Herald on August 3, 2012. The Department received the proof of publication on August 7, 2012. No requests for administrative hearings or requests for extensions of time to file a petition for administrative hearing were received.

COMMENTS

No comments on the draft permit were received from individual members of the public or the EPA Region 4 Office. Comments were received as a single submittal on behalf of the Sierra Club, the National Parks Conservation Association, Earthjustice, and respective members (Sierra et al.) in Florida described in the communication "who will be substantially affected by the draft permit for construction at Gulf Power Company's Lansing Smith Generating Plant". Comments were not received from the applicant, Gulf Power Company.

I. REVIEW OF COMMENTS FROM THE SIERRA CLUB ET AL.

Comments were submitted by the Sierra Club et al. as a cover letter with attachments comprising approximately 539 pages. Link to Sierra et al. Comments. The key comments contained in the 18-page cover letter are repeated or paraphrased *(in italics)* below and followed by the Department's response.

1. *Sierra Club et al. overall comment*: *"The permit does not assure compliance with state or federal law".*

   Department Response: The Department disagrees. The final permit complies with applicable state and federal law and implementing regulations for issuing minor source construction permits. The final permit complies with the Department's Standards for Issuing and Denying Permit as the Department has reasonable assurance that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules.
   [Rule 62-4.070, Florida Administrative Code (F.A.C.).

All applicable requirements including permits and regulations will continue to be incorporated into the facility Title V air operation permit, revisions and renewals. Taken together, the permits (including future permits) and enforceable requirements provide reasonable assurance of compliance with state or federal law.

2. *Sierra et al. characterization of Lansing Smith Boilers 1 and 2 and its emissions: "… aging, uncontrolled coal-fired boilers which emit SO_2 a dangerous pollutant which also contributes to visibility impairment throughout the state".*

   Department Response: The draft permit provided for a decrease in SO_2 emissions along with upgrades to the particulate matter control device in order to avoid emission increase caused by the use of DSI systems.

   The Department agrees that the units emit (combustion exhaust gases that contain) several haze-causing pollutants including SO_2. Given the type of source, the rates emitted within the combustion exhaust gases and the ground-level concentrations experienced in the vicinity of the site, SO_2 is a ***criteria pollutant***. EPA has set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. SO_2 is not on the list of approximately 188 pollutants listed as hazardous air pollutants (HAP) that are regulated pursuant to the Standards of Performance for New Stationary Sources (NSPS) contained in 40 Code of Federal Regulations, Part 60 (40 CFR 60).

3. *Sierra et al. reference to the Lansing Smith BART determination: "Unfortunately, the Lansing Smith BART determination cannot assure compliance with the required reductions in visibility-impairing pollutants".*

   Department Response: The reference is a continuation of the previous comment. The permit is not the Lansing Smith Boilers 1 and 2 BART determination. A draft BART determination was indeed submitted under a rule making process as an update of the Department's State Implementation Plan (SIP) and in accordance with the federal process prescribed pursuant to the Clean Air Act. Issuance of the present permit will enhance the ultimate success of the SIP process and does not contravene the draft SIP submittal or the as-yet unknown ultimate EPA decision regarding that submittal.

4. *Sierra et al. conclusion regarding draft permit: "This permit, therefore, may not properly issue". "The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, Florida Statutes (F.S.), or the rules promulgated thereunder". Sierra et al. cite: Rules 62-4.030, 62-4.070, 62-212.300(3)(a)(2) and 62-296.340, F.A.C.; 40 CFR Section 51.308; and 42 U.S. Code Section 7491. Sierra et al. specifically claim per analysis attached to their submittal "it (i.e. the permit) does not reasonably assure compliance with the Florida BART rule, 62-296.340, …….".*

   Department Response: The Department disagrees that the permit may not properly issue. The Department has reasonable assurance in accordance with Rule 62-4.030, F.A.C., that the installation of control equipment will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated thereunder. The Department also has reasonable assurance in accordance with Rule 62-4.070, F.A.C., that the installation of control equipment will not discharge, emit, or cause pollution in contravention of Department standards or rules.

   The claim that this permit does not reasonably assure compliance with Rule 62-296.340 (BART), F.A.C., is refuted by the fact that the rule does not require a BART determination for SO_2 or nitrogen oxides (NO_X) for any electric generating unit at a BART-eligible source that is subject to the Clean Air Interstate Rule (CAIR) Program. It is premature to claim that the permit does not reasonably assure compliance with an ongoing SIP effort that will revise that rule. The permit complies with all applicable Department rules.

5. *Sierra et al. claim the permit offers no reasonable assurance that Lansing Smith will not cause a violation of Florida Law: "See F.A.C. 62-4.030. Pollution is: The presence in the outdoor atmosphere or waters of any substances, contaminants, noise, biological, or radiological integrity of air or water in quantities or at levels which are or may be harmful or injurious to human health or welfare, animal or plant life, or property or*

which unreasonably interfere with enjoyment of life or property, including outdoor recreation unless authorized by applicable law". F.S. 403.031(7).

"As our comments in Attachment A explain, Lansing Smith's proposed emissions, authorized by this draft permit, will cause visibility impairment at St. Mark's National Wildlife Refuge, among other locations, due to the presence of SO_2 which, again, is an extremely dangerous pollutant. The proposed emissions levels are far higher than they should be, and so will allow visibility impairment and high levels of SO_2 pollution to persist far longer, and more severely, than a legally-compliant permit would do".

Department Response: Refer to Figure 1. There has been a dramatic reduction of SO_2 emissions at the Lansing Smith Power Plant between 1990 and 2011. Facility SO_2 reductions since they peaked in 1997, have been reduced by 50,661 tons/year and 89 percent (%). Furthermore, gross electric energy generation increased by 118% between 1997 and 2011 due to the addition of two natural gas-fueled combined cycle units (Units 4 and 5).

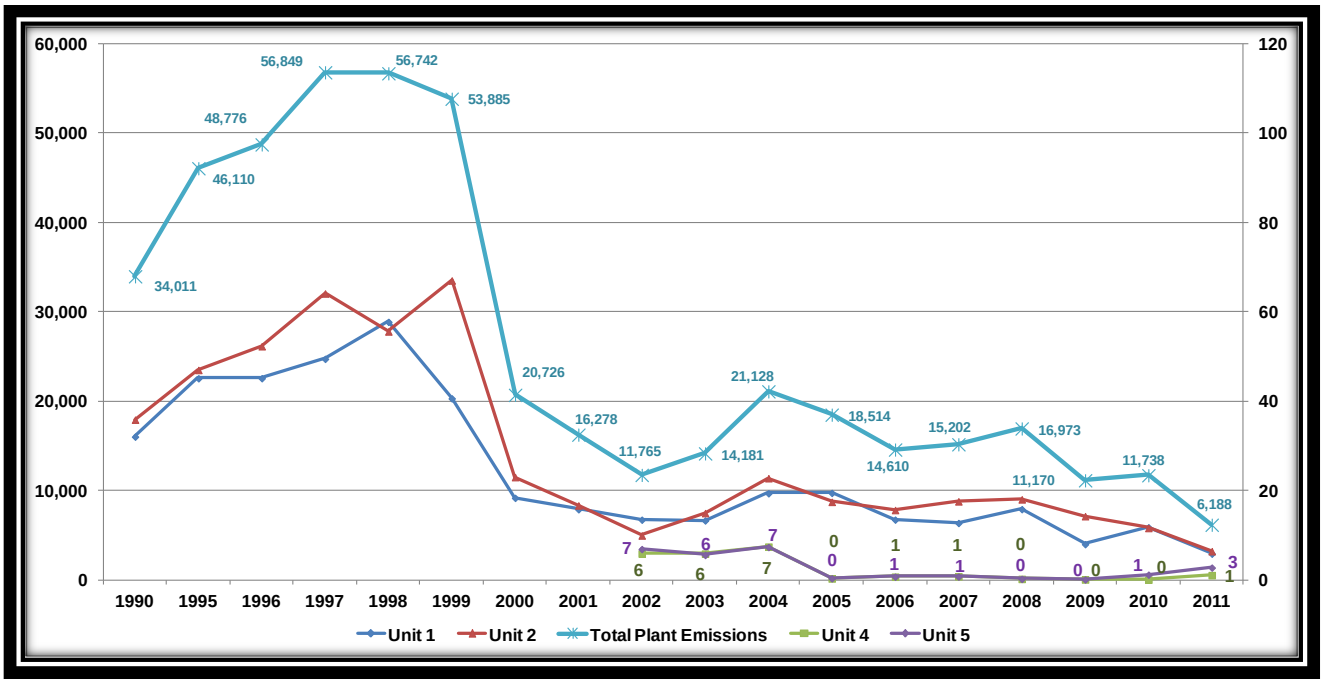

Figure 1. SO_2 Emission Trend for Lansing Smith Power Plant Units 1, 2, 4 and 5 (tons/year)

The four units (including Units 1 and 2), operate in compliance with State laws and Department rules. The Department has reasonable assurance that after issuance of the permit, the facility will continue to comply with State laws and rules. The suggestion that the act of issuance of this permit somehow causes pollution (per the cited statute) not authorized by applicable law is without merit.

The Sierra Club prepared "an air modeling impact analysis to help USEPA, state and local air agencies identify facilities that are likely causing violations of the 1-hour SO_2 NAAQS". This specific document for Lansing Smith Power Plant was prepared for the Sierra Club by Wingra Engineering, Madison, WI and is titled "Lansing Smith Electric Generating Plant Lynn Haven, Florida: Sierra Club Evaluation of Compliance with 1-hour SO_2 NAAQS (June 26, 2012)". The Department has not vetted the procedures or approved the findings presented in the document. Nevertheless, two of the tables from that report are reproduced (renumbered) below. Table 1 is a summary of Wingra Engineering's modeled emission rates in pounds per hour (lb/hour) from the units and the facility.

Table 1. Modeled SO_2 Emissions from Lansing Smith Power Plant (Wingra Report Table 2)

Stack ID	Unit ID	Allowable Emissions 24-hour Average (lb/hour)	Maximum Emissions 1-hour Average (lb/hour)
S01	Unit 1	8,752	-
S02	Unit 2	10,108	-
Stack Total	All Units	18,860 [1]	7,544 [2]
Department Note 1. Would equate to 82,607 tons/year if maintained at this rate for the entire year. Department Note 2. Would equate to 33,043 tons/year if maintained at this rate for the entire year.			

The assumptions used in the modeling imply very high rates that are not consistent with the measured annual emissions (in tons/year) per Figure 1. Table 2 indicates the emission rates in lb/hour, which according to Wingra's modeling effort, the units can emit while attaining the new and very stringent 1-hour SO_2 NAAQS of 196.2 micrograms per cubic meter ($\mu g/m^3$).

Table 2. Required Emission Reductions for Compliance with 1-hour SO_2 NAAQS (Wingra Report Table 3)

Acceptable Impact (NAAQS minus Background) 99th Percentile 1-hr Daily Max ($\mu g/m^3$)	Required Total Facility Reduction Based on Allowable Emissions (%)	Required Total Facility Emission Rate (lb/hour)	Required Total Facility Emission Rate (lb/MMbtu)
(196.2 – 5.2) = 191.0	77.6%	4,222 [1]	1.0
Department Note 1. Would equate to 18,492 tons/year if maintained at this rate for the entire year.			

Per Figure 1 during 2011 the facility emitted less SO_2 (6,188 tons) than the annualized value that would be allowed by the Wingra Engineering approach (18,492 tons/year) to attain the 1-hour SO_2 NAAQS. The SO_2 emission factors already achieved by Boilers 1 and 2 in 2011 (0.93 lb/MMBtu) are already less than the target value (described as "required total facility emission rate") suggested by the Wingra approach (1.0 lb/MMBtu). The draft permit envisions an emission standard of 0.74 lb/MMBtu for Boilers 1 and 2. Therefore, the final permit will provide a sufficient margin of safety for attainment with the new and very stringent 1-hour SO_2 NAAQS.

The foregoing discussion refutes the claim and even the notion regarding violation of Florida law. In fact it demonstrates a continuous program of emission reductions (even while expanding energy generation) in an atmosphere of great uncertainty in federal rulemaking. There is every reason to believe that the Lansing Smith Power Plant, including the coal-fueled units, will continue to comply with existing and future air pollution rules. There is also every reason to believe that the downward trend in emissions and ambient SO_2 concentrations will continue and will be facilitated by issuance of the final permit.

6. *Sierra Club et al. provides its Conclusion and summarizes as follows: "In short, because DEP lacks any reasonable assurance that this permit will assure compliance with pollution control mandates, it must revise or at a minimum not finalize the permit. [Sierra et al.] would be happy to discuss this matter with [Department staff], and look forward to DEP's efforts to improve the faulty controls in this draft".*

   Department Response: The Department has reasonable assurance such that it may issue a final permit.

CONCLUSION

The final action of the Department is to issue the permit.