



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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RICK SCOTT
GOVERNOR

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LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Sent by Electronic Mail – Received Receipt Requested

Farzie Shelton, Associate General Manager
of Technical Support

City of Lakeland Electric
501 East Lemon Street
Lakeland, Florida 33801-5079

Re: Exemption from the Requirement to Obtain an Air Construction Permit
City of Lakeland Electric, C. D. McIntosh Power Plant
Project No. 1050004-037-AC
Mercury Emissions Reduction System Testing

Dear Ms. Shelton:

On October 8, 2014, City of Lakeland Electric (LE) submitted a letter requesting an exemption from obtaining a minor air construction permit to conduct mercury (Hg) emissions reduction system testing on fossil fuel-fired steam generator Unit 3 (emission unit (EU) 006) at the C. D. McIntosh Power Plant. This testing involves injecting halogen based additives such as calcium bromide (CaBr_2) into Unit 3's coal feeders and injecting sodium hydrosulfide (NaHS) into the suction side of the recirculating pumps of the wet flue gas desulfurization (WFGD) system on Unit 3. The C. D. McIntosh Power Plant is located at 3030 East Lake Parker Drive, Lakeland, in Polk County, Florida.

The purpose of this project is to explore mitigation measures to reduce emissions of mercury to meet the applicable Mercury and Air Toxics (MATS) compliance standards in 40 Code of Federal Regulations Part 63, subpart UUUUU - National Emission Standards for Hazardous Air Pollutants (NESHAP): Coal- and Oil-Fired Electric Utility Steam Generating Units. This NESHAP comes into effect on April 16, 2015.

Determination: A complete review of this project is summarized in the attached Technical Evaluation.

The Hg emissions reduction technology is based on spray application of halogen-based additives such CaBr_2 into the coal feeders and NaHS into the WFGD system on Unit 3. Halogen-based additives, which will be spray injected into the coal, will oxidize mercury into mercury ions inside the boiler. Since the mercury ions are soluble in water, NaHS will be injected into the WFGD, which will react with the mercury ions to create insoluble HgS solids. Some HgS may be emitted into the atmosphere along with the water droplets. However, WFGD has a mist eliminator to reduce emission of water droplets and a conservatively low drift rate of 0.1% was used in estimating HgS emissions. LE will monitor mercury emissions during the testing period to determine the optimum feed rates of halogen-based additives and NaHS .

Some of the HgS could potentially be emitted as particulate matter (PM) in aerosol droplets formed from the scrubber solution and entrained in the flue gas. The vast majority of these aerosols are captured in mist eliminator portion of the scrubber. Using a mist eliminator efficiency of 99.9% (typical efficiency higher than 99.9%), the maximum estimated potential increase in PM emissions from McIntosh Unit 3 is estimated to be less than 0.00002 tons per year (TPY).

Pursuant to Rules 62-213.430(6) and 62.4.040(1)(b) F.A.C. and for the reasons stated in the Technical Evaluation, the Office of Permitting and Compliance determines that the Hg emissions reduction system testing on fossil fuel-fired steam generator Unit 3 at the C. D. McIntosh Power Plant is exempt from the requirement to obtain an air construction permit. With regard to Rule 62-213.430(6) emissions of the "regulated" pollutant PM is well below

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the exemption threshold of 5 TPY. In addition, Rule 62.4.040(1)(b) F.A.C. appears to apply because emissions of PM are so low from the project that they “...will not cause the issuance of air or water contaminants in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified.” This exemption, authorizes a duration of 90 non-consecutive operational days to conduct the proposed Mercury Emissions Reduction System Testing on Unit 3. This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity. This permitting decision is made pursuant to Chapter 403, Florida Statutes.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212, F.A.C. The Permitting Authority responsible for making a permit determination for this project is the Office of Permitting and Compliance in the Department of Environmental Protection’s Division of Air Resource Management. The Permitting Authority’s physical address is: 2600 Blair Stone Road, Tallahassee, Florida 32301. The Permitting Authority’s mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority’s telephone number is 850/717-9000.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the agency clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions must be filed within 21 days of receipt of this exemption from air permitting requirements. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person’s right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority’s action is based must contain the following information: (a) The name and address of each agency affected and each agency’s file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner’s representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner’s substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency’s proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency’s proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency’s proposed action. A petition that does not dispute the material facts upon which the Permitting Authority’s action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority’s final action may be different from the position taken by it in this permitting action. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

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Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/dlr

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Letter of Exemption and the Technical Evaluation was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Ms. Farzie Shelton, LE: farzie.shelton@lakelandelectric.com
Mr. Kennard F. Kosky, P.E., Golder: Ken_Kosky@golder.com
Mr. Sal Mohammad, P.E., Golder: Sal_Mohammad@golder.com
Ms. Kelley Boatwright, DEP SWD: Kelley.M.Boatwright@dep.state.fl.us
Mr. Justin Green, DEP Siting Office: justin.b.green@dep.state.fl.us
Ms. Alisa Coe, Earth Justice: acoe@earthjustice.org
Ms. Heather Ceron, US EPA Region 4: ceron.heather@epa.gov
Ms. Lynn Searce, DEP OPC: lynn.searce@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date,
pursuant to Section 120.52(7), Florida Statutes, with the
designated agency clerk, receipt of which is hereby acknowledged.