

Florida Department of
Environmental Protection

Memorandum

To: Joe Kahn, Division of Air Resource Management
Through: Trina Vielhauer, Bureau of Air Regulation *W*
From: Jeff Koerner, New Source Review Section *JK*
Date: September 18, 2008
Subject: Project No. 0490340-012-AC
Permit No. PSD-FL-344A
Seminole Electric Cooperative, Inc.
Midulla Generating Station
Revision of CO Inlet Testing Requirement

The final permit revision is attached for your approval and signature, which revises the original air construction permit for the new Pratt & Whitney TwinPac simple cycle combustion turbine peaking units at Seminole Electric's existing Midulla Generating Station (formerly known as the Payne Creek Generating Station). Currently, Permit No. PSD-FL-344 requires testing for carbon monoxide (CO) emissions prior to and after the oxidation catalyst. Initial tests demonstrating compliance were conducted in accordance with this requirement. However, because of space constraints, testing before the oxidation catalyst requires the removal of equipment to access the test ports.

The revised permit replaces the requirement to conduct subsequent periodic CO tests prior to the oxidation catalyst with requirements to test, monitor and report the catalyst reactivity. Tests are still required after the oxidation catalyst to determine compliance with the CO emissions standards. The attached Final Determination summarizes the publication and comment process. There are no pending petitions for administrative hearings or extensions of time in which to file a petition for an administrative hearing.

We separated this request from other simultaneous requests for quick processing. I recommend your approval of the attached final permit revision.

Attachments

TLV/jfk

FINAL DETERMINATION

PERMITTEE

Seminole Electric Cooperative, Inc.
P.O. Box 272000
Tampa, Florida 33688-2000

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. PSD-FL-344A
Project No. 0490340-012-AC
Midulla Generating Station
TwinPac Simple Cycle Combustion Turbine Peaking Units (EU-005 to EU-009)
Revision of Carbon Monoxide (CO) Inlet Testing

Seminole Electric Cooperative, Inc. operates the Midulla Generating Station (formerly known as the Payne Creek Generating Station), which is an existing electrical power plant located in Hardee County, Florida. The final permit for this project replaces the requirement to conduct subsequent periodic CO tests prior to the oxidation catalyst of the TwinPac simple cycle combustion turbine peaking units with requirements to test, monitor and report the catalyst reactivity. Tests are still required after the oxidation catalyst to determine compliance with the CO emissions standards.

NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Air Permit package on August 29, 2008. The applicant published the Public Notice in The Herald-Advocate newspaper on September 4, 2008. The Department received the proof of publication on September 10, 2008. No petitions or requests for extensions of time to file a petition for an administrative hearing were received.

COMMENTS

No comments on the Draft Permit were received from the public, the Department's Southwest District Office, the EPA Region 4 Office or the applicant.

CONCLUSION

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



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

NOTICE OF FINAL PERMIT REVISION

In the Matter of an
Application for Permit by:

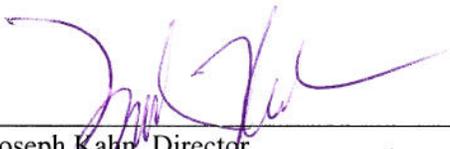
Michael Opalinski, V.P. of Technical Services
Seminole Electric Cooperative, Inc.
P.O. Box 272000
Tampa, Florida 33688-2000

Permit No. PSD-FL-344A
Project No. 0490340-012-AC
Midulla Generating Station
Facility ID No. 0490340
CO Inlet Testing Revision

Enclosed is Final Permit No. PSD-FL-344A (Project No. 0490340-012-AC), which revises the original air construction permit five combustion turbine sets at Seminole Electric Cooperative, Inc.'s Midulla Generating Station. This facility is an existing electrical power plant (SIC No. 4911) located in Hardee County at 6695 County Road 663 in Bowling Green, Florida. This plant was formerly known as the Payne Creek Generating Station. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes 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.



Joseph Kahn, Director
Division of Air Resource Management

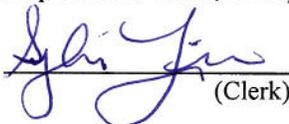
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the final permit revision) was sent by electronic mail with received receipt requested before the close of business on 9/22/08 to the persons listed:

- Mr. Michael Opalinski, Seminole Electric Cooperative, Inc. (mopalinski@seminole-electric.com)
- Mr. Juan Ramirez, Seminole Electric Cooperative, Inc. (jramirez@seminole-electric.com)
- Mr. Walt Hentze, Seminole Electric Cooperative, Inc. (whentze@seminole-eletric.com)
- Mr. Tom Davis, ECT, Inc. (tdavis@ectinc.com)
- Mr. Mike Halpin, Siting Office (Halpin_M@dep.state.fl.us)
- Ms. Cindy Zhang-Torres, Southwest District Office (Cindy.Zhang-Torres@dep.state.fl.us)
- Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



(Clerk)

9/22/08

(Date)

REVISIONS TO PERMIT NO. PSD-FL-344

All construction related to this project is complete and no further construction is authorized by this action. The following permit conditions are revised as follows. Deleted text is shown as ~~strikethrough~~ and new added text is shown with double underline. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

Emissions Performance Testing

25. Annual Performance Tests:

- (a) To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO_x, CO, and visible emissions for each combustion turbine on each fuel. VOC emission tests are not required annually provided the CO emission standards are being met. The CO standard shall be demonstrated initially by the measurement of CO emissions upstream and downstream of the oxidation catalyst and by calculating CO removal efficiency; ~~thereafter, compliance with the CO standard shall be demonstrated by conducting tests downstream of the oxidation catalyst.~~ In the event that the measured removal efficiency is less than or equal to 85%, the Department shall be immediately notified and the oxidation catalyst shall be renewed within 120 calendar days of the test date. Failure to fully comply with this requirement shall represent a violation of this permit. Once the oxidation catalyst is renewed, the Department shall be notified as to the actual date complete. Within the first 24 months of operation, the permittee shall have one coupon of the catalyst from each Twin Pac (5 total) analyzed for catalytic reactivity. Subsequent samples shall be taken at 24-month intervals (± 2 months) and analyzed for catalytic reactivity. The purpose of the sampling program is to track the loss of catalyst reactivity. Based on data collected for the samples, the operator shall appropriately plan for the addition of catalyst or the replacement of catalyst as necessary to ensure compliance with the emissions standards of this permit. Within 60 days of determining the catalyst reactivity, the permittee shall submit a report to the Compliance Authority summarizing the results, the general trend of catalyst reactivity, all CO emissions tests and plans for adding or replacing catalyst. Testing for ammonia slip is required during the first scheduled annual performance tests after the cumulative hours of operation on each combustion turbine exceed 1,500 hours of oil firing or 5,000 hours of gas firing starting from the initial installation of the SCR catalysts. Thereafter, ammonia testing is required during the first scheduled annual performance tests after subsequent cumulative 1,500 hours of oil firing and 5,000 hours of gas firing in each combustion turbine or after regeneration, replacement or addition to the SCR catalyst system. If conducted at permitted capacity, NO_x emissions data collected during the annual NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). In the event that the operation of a combustion turbine is less than 400 hours per year on natural gas or distillate oil, annual testing is not required for that year and that fuel. [Rule 62-297.310(7)(a), F.A.C.]