

## Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Colleen M. Castille Secretary

March 9, 2006

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dave Kellermeyer, Responsible Official Mulberry Cogeneration Facility (Northern Star Generation Services Company, LLC) 2929 Allen Parkway, Suite 2200 Houston, TX 77019

Re: Mulberry Cogeneration Facility

Combined Cycle Gas Turbine (EU-001) - DLN Tuning

Exemption from the Requirement to Obtain an Air Construction Permit

## Dear Mr. Kellermeyer:

On March 6, 2006, we received your email requesting authorization to conduct a dry low-NOx tuning/testing session for the gas turbine at the existing cogeneration plant in Bartow, Florida. Emissions and operational data are gathered during tuning/testing at various load conditions and firing modes. This information is used to tune the gas turbine to achieve the recognized low emissions profile for the General Electric 7EA unit. This would occur over a 5-day period that is currently scheduled for the week of March 20<sup>th</sup>. During this time, the plant will have General Electric technicians on site to tune the gas turbine to achieve maximum efficiency and emissions control. While conducting tuning/testing, it is possible to have excess emissions while the unit is staged through the various load conditions. This would occur for no more than 20 hours during the 5-day tuning/testing period.

Your email also requests authorization to conduct tuning/testing at a slightly higher combustion turbine firing temperature (2055° F vs. 2020° F), which would allow an increase in the maximum heat input rate of approximately 5%. The higher firing temperature is achievable due to the routine replacement of some hot-gas path components, including combustion liners with improved metallurgy. After the tuning session, the plant would return to the normal heat input rate until the Department acts on a pending application requesting authorization for the higher heat input rate. The Department authorized a similar request in 2004. Test results from that project indicate that actual CO emissions decreased, but that actual NOx emissions increased from 23.8 to 29.9 lb/hour. However, even if the increase in NOx emissions occurred for 24 hours/day for the entire 5-day tuning sessions, the increased NOx emissions would be less than half a ton.

**Determination**: Based on the available information, the Department approves your request as conditioned by the provisions attached to this letter. Pursuant to Rule 62.4.040(1)(b), F.A.C., the Department exempts this temporary project from the requirement to obtain an air construction permit. 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 of the

Florida Administrative Code (F.A.C.). The Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, 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 850/488-0114.

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 Department's 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 filed by the applicant or any of the parties listed below must be filed within twenty-one (21) days of receipt of this Written Notice of Exemption. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within twenty-one (21) days of publication of a Public Notice or within twenty-one (21) days of receipt of this Written Notice of Exemption, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within twenty-one (21) days of receipt of that notice, regardless of the date of publication. 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 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 how and when each petitioner received notice of the agency action or proposed action; (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; 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 Written Notice of Exemption. 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.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Department 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 Department.

Appeal: 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 thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this order was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 3/9/06 persons listed:

Mr. David A. Kellermeyer, Northern Star Generation Services Company, LLC\*

Ms. Gwynne Johnson, Mulberry Cogeneration Facility

Mr. Scott Osbourn, Golder Associates Inc.

Mr. Jason Waters, SWD Office

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.

Subject to the following provisions, the Mulberry Cogeneration Facility is authorized to conduct a dry low-NOx tuning/testing session while firing natural gas for the existing combined cycle gas turbine.

- 1. At least 3 days prior to conducting the tuning/testing session, the plant shall notify the Department's Southwest District Office with a preliminary schedule. This schedule shall be updated as necessary.
- 2. The tuning/testing session may be conducted at a combustion turbine firing temperature of 2055° F.
- 3. The tuning/testing session at 2055° F shall be limited to 5 separate days of tuning/testing.
- 4. Except for the following, the gas turbine shall comply with all existing requirements of the current Title V air operation permit:
  - a. During the authorized tuning session, the maximum heat input rate will be 912 MMBtu/hr at ISO conditions based on full load operation and the lower heating value of natural gas.
  - b. No more than 20 hours of NOx CEMS data collected during the tuning/testing session shall be excluded from the NOx compliance demonstration due to tuning/testing.

These temporary provisions expire once the tuning/testing session is complete.

- 5. NOx emissions shall be continuously monitored with the existing NOx CEMS throughout the tuning/testing program.
- 6. The plant shall notify the Department's Southwest District Office within 1 day of completing the tuning/testing.
- 7. Within 30 days of completing the tuning/testing, the plant shall provide a written report summarizing the tuning procedure and the results including the affects on operations and emissions. The report shall be submitted to the Southwest District Office and the Bureau of Air Regulation.
- 8. This authorization expires on April 30, 2006.