

February 2, 2001

Mr. Al Linero, P.E.  
Administrator, New Source Review Section  
Florida Department of Environmental Protection  
2600 Blair Stone Rd.  
Tallahassee, FL 32399-2400

Re: DEP File No. 1110099-002-AC (PSD-FL-305)  
Midway Energy Center, St. Lucie County  
Comments on Draft PSD Permit

Dear Mr. Linero:

This letter serves to provide comments on the draft permit for the above-referenced facility. The Department issued the Draft Permit, Technical Evaluation and Preliminary Determination on December 15, 2000. Comments are provided below, in the order in which they occur in the draft permit.

1. Section II. Administrative Requirements, Specific Condition (SC) 8 (page 5 of 15): At our request, the permit expiration date was extended. However, we believe it was the Department's intent to revise the language as follows: "The expiration date is June 30, 2003. Physical construction shall be complete by December 31, 20023."
2. Section III. General Operation Requirements, SC 13 and 14 (pages 7 and 8 of 15): As suggested in a separate letter to the Department, dated January 23, 2001 (attached), it's requested that the language in SC 13 and 14 be revised based on the discussions in our meeting held in your offices on January 17, 2001. The attached letter provides suggested language that provides the Department with reasonable assurance that the intent is for natural gas to be the primary fuel for this proposed project.
3. Section III. SC 17 (page 8 of 15): The permit language states that "The permittee shall provide manufacturer's emissions vs. load diagrams for the DLN and wet injection systems prior to their installation." Past requests of the manufacturer for these types of diagrams have been unsuccessful. Typically, the manufacturer will provide emission estimates at various load points corresponding to various inlet temperature cases. These emission values, that are the basis for this permit, were previously provided in the permit application. It's requested that the word "diagrams" in the above sentence be replaced with the word "estimates".
4. Section III. SC 19 (page 9 of 15): The language concerning fuel oil firing should be revised as follows: "In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> shall exceed neither 332 lb/hr nor 42 ppmvd at 15% O<sub>2</sub> to be demonstrated by initial stack test."
5. Section III. SC 20 (page 9 of 15): The CO emission limit for fuel oil presented in the permit application was based on 20 ppmvd. At a temperature of 30 F, this corresponds to 69.6

lb/hour, not 46 lb/hour, as shown in the draft permit. The 20 ppm concentration is based on 100% load. Concentrations of CO are estimated to be as high as 22 ppm at 75% load factor and 30 ppm at 50% load factor. The peak emission estimate is 78.3 lb/hour at 50% load and 91 F. Based on these factors we request that the permit limit for oil firing be expressed as follows: "The concentration of CO in the stack exhaust gas shall exceed neither 12 ppmvd nor 31 lb/hr (gas) and neither 20 ppmvd nor 70 lb/hour (fuel oil) to be demonstrated by stack tests at full load operation."

6. Section III. SC 27 (page 10 of 15): The last sentence should be revised as follows: "...periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition No. ~~18~~ and 19."
7. Section III. SC 29 (page 11 of 15): The permit language indicates that emission testing by EPA Reference Methods 9 and 10 (for visible emissions and CO emissions, respectively) are to be conducted both initially and annually for both fuels. In the past, the Department has issued permits (e.g., Hines Energy Complex) with language that requires that annual testing be done on fuel oil (the backup fuel) only if a threshold number of operating hours on oil is exceeded (e.g., 400 hr/CT) during a rolling 12-month period. This is because it's a financial hardship to require operation on the more expensive fuel. It's requested that the conditions be revised to include annual testing for VE and CO emissions on oil, only if a CT exceeds 400 hours of operation in a 12-month rolling period.
8. Section III. SC 33 (page 11 of 15): It's requested that the same language be included here regarding the annual testing requirement for visible emissions while firing oil.
9. Section III. SC 36 (page 12 of 15): The second sentence should be revised as follows: "...corrected for the average inlet ~~ambient~~ air temperature during the test...".
10. Section III. SC 45 (page 13 of 15): The last sentence states that "these excess emissions periods shall be reported as required in Specific Conditions 24 and 46." The reference to SC 24 appears to be incorrect, as it refers to the limitation for visible emissions.
11. Section III. SC 46 (page 14 of 15): Although the language is intended to instruct on the procedure to determine compliance with the 24-hour rolling average, the second sentence refers to a separate compliance determination being conducted at the "end of each operating day". This language is appropriate in the context of a 24-hour block average, but should be deleted from SC 46, which is addressing rolling averages.
12. Section III. SC 47 (page 14 of 15): The Specific Conditions referenced in the last sentence of this condition (20, 21 and 29) all appear to be incorrect. The conditions need to be cross-referenced correctly or deleted. Also, the appropriate DEP office to notify would be the Southeast District, not the South District.
13. Section III. SC 49 (page 14 of 15): Some of the text appears to be missing. The doesn't appear to be any schedule for testing of sulfur or nitrogen in natural gas in the bulleted items. In fact, the bulleted items appear to be related to compliance with the Acid Rain requirements of Parts 72 and 75, not with Part 60 Subpart GG compliance (which is what requires a Custom Fuel Schedule).

14. Section III. SC 50 (page 15 of 15): It's requested that the requirement to conduct sampling and analysis for fuel bound nitrogen content be deleted. Typically, the requirement to monitor water-to-fuel ratio, combined with the requirement to analyze for fuel bound nitrogen content, provides a surrogate for NOx compliance. As recognized by the Department in the language of SC 48, the NOx CEMS are to be used in lieu of the water/fuel monitoring system for reporting excess emissions. Given that NOx CEMS will be used for compliance, the monitoring of the fuel bound nitrogen content serves no useful purpose, and should not be required.

If you should have any questions concerning these comments, please do not hesitate to contact me at (713) 853-3161.

Sincerely,

David A. Kellermeier  
Authorized Agent

Attachment

cc: Greg Krause  
Raimund Grube  
Ben Jacoby  
Scott Osbourn, ENSR



**Enron North America Corp.**

P.O. Box 1188

Houston, TX 77251-1188

January 23, 2001

**RECEIVED**

**JAN 24 2001**

**BUREAU OF AIR REGULATION**

Mr. Al Linero, P.E.  
Administrator, New Source Review Section  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: DEP File No. 1110099-002-AC (PSD-FL-305)  
Midway Energy Center, St. Lucie County

Dear Mr. Linero:

We appreciate the time you and your staff have taken to review and discuss our air permit application for our Midway site in St. Lucie County.

As promised, enclosed with this letter, please find a copy of suggested language for Conditions 13 and 14 of Section III. The objective of this proposal is to capture the language suggested by your staff in our meeting last week. We therefore trust that the attached will address any remaining concerns, and demonstrate our shared interest at further controlling the proposed facility's emissions through operational initiatives. We will call you in the next couple of days to follow up on this and other items.

Again, we appreciate the time you and your staff have taken on this matter, which will help to ensure that the State of Florida has adequate electric capacity to meet its needs.

Sincerely,  
Midway Energy Center, LLC

A handwritten signature in black ink that reads "David A. Kellermeyer". The signature is written in a cursive style with a long horizontal line extending from the end.

David A. Kellermeyer  
Authorized Agent

Attachment

cc: Greg Krause  
Raimund Grube  
Ben Jacoby  
Scott Osbourn, ENSR

## ATTACHMENT

13. Maximum allowable hours: The three stationary gas turbines shall operate no more than an average of 3,500 hours per installed unit during any calendar year, as may be adjusted in condition 14 below, based on oil fired run hours. ~~The three stationary gas turbines shall operate no more than an average of 1000 hours per installed unit on fuel oil during any calendar year.~~ No single combustion turbine shall operate more than 5,000 hours in a single year. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions), Rule 62-212.400, F.A.C. (BACT)]
14. Fuel oil usage: ~~The amount of back-up fuel (fuel oil) burned at the site (in BTU's) shall not exceed the amount of natural gas (primary fuel) burned at the site (in BTU's) during any consecutive 12-month period. The Department may waive this requirement during the first 24 months of operation based on natural gas availability.~~ In order to encourage the maximum use of natural gas as fuel, during any calendar year the three stationary gas turbines shall operate on fuel oil for no more than an average of 1,000 hours per installed unit. Furthermore, during any calendar year, the maximum allowable operating hours referenced in condition 13 above shall be reduced by two hours for each oil fired hour in excess of an average of 500 per installed unit. For example, if the three stationary gas turbines operate on fuel oil in any calendar year for an average of 550 hours per installed unit, the total maximum allowable operating hours shall be decreased to 3,400. [Rule 62-212.400, F.A.C. (BACT)]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JAN 19 2001

RECEIVED

JAN 23 2001

BUREAU OF AIR REGULATION

4APT-ARB

Mr. Alvaro A. Linero, P.E.  
Administrator, New Source Review Section  
Bureau of Air Regulation, Division of  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Comments on Preliminary Determination and Draft PSD Permit for Midway Energy Center, located in St. Lucie County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for the Midway Energy Center dated December 15, 2000. The draft PSD permits are for the proposed construction of an electric power generating plant consisting of three simple cycle combustion turbines (CTs), one natural gas heater and associated fuel storage tanks. The combustion turbines proposed for the facility will be General Electric (GE) PG7241FA units with a nominal generating capacity of 170 megawatts (MW) each. The CTs will combust pipeline quality natural gas and distillate oil. Total emissions from the proposed project are above the thresholds requiring PSD review for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist and particulate matter (PM/PM<sub>10</sub>).

Based on our review of the preliminary determination and draft PSD permits, we have the following comments.

1. Section III. Emission Units Specific Conditions, Applicable Standards and Regulations.  
6. 40 C.F.R. Subpart Dc is an applicable requirement for the gas heater. In 40 C.F.R. § 60.41c, a steam generating unit is defined as a device that combusts any fuel and produces steam or heat water or any other heats transfer medium. Heat transfer medium is defined as any material that is used to transfer heat from one point to another point. The natural gas heaters meet the definition of steam generating unit; therefore, they are an affected facility as defined in 40 C.F.R. § 60.40c(a). Also, pursuant to 40 C.F.R. § 60.48c(g), the permittee must record the amount of each fuel combusted each day. Please include this applicable requirement in the permit.
2. Section III. Emission Units Specific Conditions, General Operation Requirements, 13.  
Maximum allowable hours: To limit the potential to emit, the operation limitations (hours of operation per year) should be expressed in terms of 12 consecutive months, rather than

calendar year. This 12-month consecutive limit prevents the enforcing agency from having to wait for long periods of time to establish a continuing violation before initiating enforcement.

3. Section III. Emission Units Specific Conditions, Excess Emissions, 25. The Florida Department of Environmental Protection should include definitions of what constitutes "startup" and "shutdown" as referenced in this section.

Thank you for the opportunity to comment on the preliminary determination and draft PSD permit for Midway Energy Center. If you have any questions regarding these comments, please direct them to either César Zapata at (404) 562-9139 or Jim Little at (404) 562-9118.

Sincerely,



R. Douglas Neeley  
Chief  
Air and Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

cc: C. Holladay  
B. Jacoby, MDC  
B. Burgess, P.E., ENSR  
G. Benick, WPS  
D. Gallimore, DEP SED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8060

## FACSIMILE TRANSMITTAL SHEET

To	Al Linero - FDEP
Fax Number	(850) 922-6979
From	César Zapata Air and Radiation Technology Branch, Air Permits Section Phone: (404) 562-9139 Fax: (404) 562-9095 E-mail: zapata.cesar@epa.gov
Subject	Midway Energy Center
Date	January 19, 2001
Pages	3 (including this sheet)

Original letter will be sent by mail.





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JAN 19 2001

4APT-ARB

Mr. Alvaro A. Linero, P.E.  
Administrator, New Source Review Section  
Bureau of Air Regulation, Division of  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Comments on Preliminary Determination and Draft PSD Permit for Midway Energy Center, located in St. Lucie County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for the Midway Energy Center dated December 15, 2000. The draft PSD permits are for the proposed construction of an electric power generating plant consisting of three simple cycle combustion turbines (CTs), one natural gas heater and associated fuel storage tanks. The combustion turbines proposed for the facility will be General Electric (GE) PG7241FA units with a nominal generating capacity of 170 megawatts (MW) each. The CTs will combust pipeline quality natural gas and distillate oil. Total emissions from the proposed project are above the thresholds requiring PSD review for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist and particulate matter (PM/PM<sub>10</sub>).

Based on our review of the preliminary determination and draft PSD permits, we have the following comments.

1. Section III. Emission Units Specific Conditions, Applicable Standards and Regulations.  
6. 40 C.F.R. Subpart Dc is an applicable requirement for the gas heater. In 40 C.F.R. § 60.41c, a steam generating unit is defined as a device that combusts any fuel and produces steam or heat water or any other heats transfer medium. Heat transfer medium is defined as any material that is used to transfer heat from one point to another point. The natural gas heaters meet the definition of steam generating unit; therefore, they are an affected facility as defined in 40 C.F.R. § 60.40c(a). Also, pursuant to 40 C.F.R. § 60.48c(g), the permittee must record the amount of each fuel combusted each day. Please include this applicable requirement in the permit.
2. Section III. Emission Units Specific Conditions, General Operation Requirements, 13.  
Maximum allowable hours: To limit the potential to emit, the operation limitations (hours of operation per year) should be expressed in terms of 12 consecutive months, rather than



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JAN 19 2007

4APT-ARB

Mr. Alvaro A. Linero, P.E.  
Administrator, New Source Review Section  
Bureau of Air Regulation, Division of  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Comments on Preliminary Determination and Draft PSD Permit for Midway Energy Center, located in St. Lucie County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for the Midway Energy Center dated December 15, 2000. The draft PSD permits are for the proposed construction of an electric power generating plant consisting of three simple cycle combustion turbines (CTs), one natural gas heater and associated fuel storage tanks. The combustion turbines proposed for the facility will be General Electric (GE) PG7241FA units with a nominal generating capacity of 170 megawatts (MW) each. The CTs will combust pipeline quality natural gas and distillate oil. Total emissions from the proposed project are above the thresholds requiring PSD review for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist and particulate matter (PM/PM<sub>10</sub>).

Based on our review of the preliminary determination and draft PSD permits, we have the following comments.

1. Section III. Emission Units Specific Conditions, Applicable Standards and Regulations, 6. 40 C.F.R. Subpart Dc is an applicable requirement for the gas heater. In 40 C.F.R. § 60.41c, a steam generating unit is defined as a device that combusts any fuel and produces steam or heat water or any other heats transfer medium. Heat transfer medium is defined as any material that is used to transfer heat from one point to another point. The natural gas heaters meet the definition of steam generating unit; therefore, they are an affected facility as defined in 40 C.F.R. § 60.40c(a). Also, pursuant to 40 C.F.R. § 60.48c(g), the permittee must record the amount of each fuel combusted each day. Please include this applicable requirement in the permit.
2. Section III. Emission Units Specific Conditions, General Operation Requirements, 13. Maximum allowable hours: To limit the potential to emit, the operation limitations (hours of operation per year) should be expressed in terms of 12 consecutive months, rather than

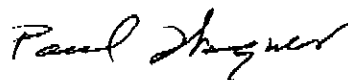
2

calendar year. This 12-month consecutive limit prevents the enforcing agency from having to wait for long periods of time to establish a continuing violation before initiating enforcement.

3. Section III. Emission Units Specific Conditions. Excess Emissions, 25.: The Florida Department of Environmental Protection should include definitions of what constitutes "startup" and "shutdown" as referenced in this section.

Thank you for the opportunity to comment on the preliminary determination and draft PSD permit for Midway Energy Center. If you have any questions regarding these comments, please direct them to either César Zapata at (404) 562-9139 or Jim Little at (404) 562-9118.

Sincerely,



R. Douglas Neeley  
Chief  
Air and Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division