



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 26, 1997

Mr. Robert E. McGarrah, Production Superintendent
City of Tallahassee, Electric Utilities
2602 Jackson Bluff Road
Tallahassee, Florida 32304

RE: Final Comments Pertaining to the DRAFT Title V Permit for Purdom Generating Station
Permit/Project Number 1290001-001-AV

Dear Mr. McGarrah:

As a result of our meeting to discuss the Department's responses to your comments regarding the DRAFT Title V permit for the Purdom plant, several of our original responses have been changed and/or clarified.

Attached, please find the comments that were discussed in the meeting and our modified/clarified responses. In addition, our responses to your revision requests submitted on June 24 are also included. These changes will be incorporated into the final comments and revisions that will alter the "DRAFT" permit into the "PROPOSED" permit that will be sent to EPA for review.

Should you have any comments or questions regarding the attached revised responses, please call me or Jonathan Holtom at (904) 488-1344.

Sincerely,

Scott M. Sheplak, P.E.

Administrator
Title V Section

Attachment

SMS/jh

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2. Comment:

In regards to the Department's use of "Not Federally Enforceable" to identify State-only requirements, our review has identified several additional permit conditions (Facility-Wide Condition 2., Emission Unit-Specific Conditions A.1., A.2., A.3., B.1., B.2., B.3., C.11., D.1., D.2., D.3., D.9., D.12., D.13., E.2., and E.3., and Appendix TV-1 Conditions 10., 12., 17. (F.A.C.), 54., 55. (F.A.C.), 56. (F.A.C.), and 57.) which should be listed in this manner.

Response:

These conditions have been researched and all current conditions that have not been flagged are either part of the State Implementation plan or a Federally Delegated Program, such as Title V. The above referenced conditions will remain as noticed in the DRAFT.

Revised Response:

Several of the above conditions were further questioned for flagging as "Not Federally Enforceable" (i.e. heat input, fuel types, etc.). Title V requires that the permits contain enough information to adequately demonstrate compliance with the applicable standards. All of the conditions that can be flagged as "Not Federally Enforceable" are already flagged. The original response remains, no changes will be made as a result of this comment.

4. Comment:

For the combustion turbines, please remove the term "Peaking Unit" and replace it with "(LHV)" to more accurately reflect the firing rate which is based on the lower heating value of the fuel. The "(LHV)" designation should also be applied to the maximum heat input rate for the combustion turbines in the Subsection D description and Condition D.1.

Response:

See Response 3. above regarding "peaking units". The designation "(LHV)" will not be attached to the unit descriptions. The defined capacity represents as-fired fuel during normal operation and compliance testing.

As a result of this comment, the **Brief Descriptions** are changed:

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From:

Regulated Emissions Units:

E.U. ID

No.

Brief Description

-005	Boiler Number 5 - 300 MMBtu/hour
-006	Boiler Number 6 - 300 MMBtu/hour
-007	Boiler Number 7 - 621 MMBtu/hour (Acid Rain, Phase II Unit)
-008	Combustion Turbine Number 1 - 228 MMBtu/hour Peaking Unit
-009	Combustion Turbine Number 2 - 228 MMBtu/hour Peaking Unit
-011	Auxiliary Boiler

To: Regulated Emissions Units:

E.U. ID

No.

Brief Description

-005	Boiler Number 5 - 300 MMBtu/hour
-006	Boiler Number 6 - 300 MMBtu/hour
-007	Boiler Number 7 - 621 MMBtu/hour (Acid Rain, Phase II Unit)
-008	Combustion Turbine Number 1 - 228 MMBtu/hour
-009	Combustion Turbine Number 2 - 228 MMBtu/hour
-011	Auxiliary Boiler

Revised Response:

The requested changes will be made.

As a result of this comment, the **Brief Descriptions** are changed:

From:

Regulated Emissions Units:

E.U. ID

No.

Brief Description

-005	Boiler Number 5 - 300 MMBtu/hour
-006	Boiler Number 6 - 300 MMBtu/hour
-007	Boiler Number 7 - 621 MMBtu/hour (Acid Rain, Phase II Unit)
-008	Combustion Turbine Number 1 - 228 MMBtu/hour Peaking Unit
-009	Combustion Turbine Number 2 - 228 MMBtu/hour Peaking Unit
-011	Auxiliary Boiler

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To: Regulated Emissions Units:

E.U. ID

No. Brief Description

-005	Boiler Number 5 - 300 MMBtu/hour
-006	Boiler Number 6 - 300 MMBtu/hour
-007	Boiler Number 7 - 621 MMBtu/hour (Acid Rain, Phase II Unit)
-008	Combustion Turbine Number 1 - 228 MMBtu/hour (LHV)
-009	Combustion Turbine Number 2 - 228 MMBtu/hour (LHV)
-011	Auxiliary Boiler

Also as a result of this comment, **Condition Number D.1.** is changed:

From:

D.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
8	228	Natural Gas
	228	No. 2 Fuel Oil
9	228	Natural Gas
	228	No. 2 Fuel Oil

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

To:

D.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
8	228 (LHV @ 80 degrees Fahrenheit)	Natural Gas
	228 (LHV @ 80 degrees Fahrenheit)	No. 2 Fuel Oil
9	228 (LHV @ 80 degrees Fahrenheit)	Natural Gas
	228 (LHV @ 80 degrees Fahrenheit)	No. 2 Fuel Oil

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

5. Comment:

Condition No. 6. relates to the general emission limiting standards for volatile organic compounds. The regulation requires the Department to deem necessary and order the appropriate vapor emission control devices and systems. Review of the permit condition and existing permits noted that the Department has not deemed necessary or ordered any such control devices or systems. If such systems are required at the facility please identify them within the condition. If no systems are required, we ask that the condition and the reference to the regulation be deleted.

Robert E. McGarrah

June 25, 1997

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Response:

Condition No. 6. is a quote of the rule, an applicable requirement and federally enforceable under the SIP. Therefore, no change will be made.

Revised Response:

Condition No. 6. is a quote of the rule, an applicable requirement and federally enforceable under the SIP. Although it must remain in the permit, we are agreeable to adding a permitting note for clarification.

As a result of this comment, **Condition Number 6.** is changed:

From:

6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

[Rule 62-296.320(1)(a), F.A.C.]

To:

6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}

[Rule 62-296.320(1)(a), F.A.C.]

10. Comment:

Please revise the permit to clarify that Boilers Number 5, 6, and 7 may burn on-specification used oil generated by the City, as requested in the application. (Descriptions for Subsections A. and B., Conditions A. 1., A.3., A.11., B.1., and B.3.)

Response:

The Title V permitting program is not a preconstruction emissions review program and, as such, may not be used to approve such types of requests. Therefore, no change will be made.

Revised Response:

The Department agrees to allow on-specification used oil to be combusted in Boiler Number 7.

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As a result of this comment, **Condition Number B.1.** is changed:

From:

B.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
7	621	Natural Gas
	621	No. 2 thru No. 6 fuel oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

To:

B.1. Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
7	621	Natural Gas
	621	No. 2 thru No. 6 Fuel Oil; On-Specification Used Oil (See Specific Condition B.[X].)

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.; and, Applicant's request.]

Also as a result of this comment, **Condition Number B.3.** is changed:

From:

B.3. Methods of Operation - Fuels. The only fuels allowed to be burned in this boiler are natural gas and/or new No. 2 thru No. 6 fuel oil.

[Rule 62-213.410, F.A.C.]

To:

B.3. Methods of Operation - Fuels. The fuels that are allowed to be burned in this boiler are natural gas and/or new No. 2 thru No. 6 fuel oil and/or on-specification used oil.

[Rule 62-213.410, F.A.C.; and, Applicant's request.]

In addition, as a result of this comment, a new condition will be added to the end of this section under the heading of Miscellaneous Conditions.

Add:

B.X. Used Oil. Burning of on-specification used oil is allowed at this emissions unit in accordance with all other conditions of this permit and the following conditions:

- a. On-specification Used Oil Emissions Limitations: This emissions unit is permitted to burn on-specification used oil, which contains a PCB concentration of less than 50 ppm. On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of

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Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. Quantity Limitation: This emissions unit is permitted to burn "on-specification" used oil that is generated by the City of Tallahassee in the production and distribution of electricity, not to exceed 10,000 gallons during any consecutive 12 month period.
- c. PCB Limitation: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. Operational Requirements: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. Testing Requirements: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

If the analytical results show that the used oil **does not meet** the specifications for on-specification used oil, or that it contains a PCB concentration of **50 ppm or greater**, the owner or operator shall:

- a. immediately notify the Northwest District Air Compliance Section;
 - b. provide the analytical results for the above parameters; and
 - c. indicate the proposed means of disposal of the used oil.
- f. Record Keeping Requirements: The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]
- (1) The gallons of on-specification used oil generated and burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)

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(3) Results of the analyses required above.

- g. Reporting Requirements: The owner or operator shall submit to the Northwest District office, within thirty days of the end of each calendar quarter, the analytical results and the total amount of on-specification used oil generated and burned during the quarter.

The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

[Rule 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted.]

16. Comment:

Condition No. A.10. relates to the requested sulfur dioxide limit on Boilers Number 5 and Number 6. The City requests that this condition be made federally enforceable through the Title V permit.

Response:

As discussed during the October 15, 1996, meeting between FDEP and the City of Tallahassee, this standard can not be made federally enforceable through the Title V permit because it conflicts with the SIP standard. Therefore, Condition No. A.10. will not be changed.

Revised Response:

This limit can be made federally enforceable through the Title V permit, but the SIP limit must also remain in the permit since it is an applicable requirement. Be cautioned that the ability to use this lower limit for any future SIP related purpose is currently unknown.

As a result of this comment, **Condition Numbers A.9. and A.10.** are changed:

From:

A.9. Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 1.87 pounds per million Btu heat input, as measured by applicable compliance methods.

[Rule 62-296.405(1)(c)1.h., F.A.C.]

A.10. **Not federally enforceable.** Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 1.3 pounds per million Btu heat input, as measured by applicable compliance methods.

[Rule 62-204.240(1)(a), F.A.C.; and, requested by applicant in initial Title V permit application received June 14, 1996.]

To:

A.9. Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 1.87 pounds per million Btu heat input, as measured by applicable compliance methods. However, the permittee has requested a lower limit of 1.3 pounds per million Btu heat input, as measured by applicable compliance methods.

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[Rules 62-296.405(1)(c)1.h. & 62-204.240(1)(a), F.A.C.; and, requested by applicant in initial Title V permit application received June 14, 1996.]

A.10. (Delete and renumber subsequent conditions accordingly.)

21. Comment:

Condition No. C.11. relates the operating rates during compliance testing. Please revise this condition to clarify that fuel oil and natural gas may be co-fired during the annual compliance testing and that the units may co-fire up to 110 percent of the maximum co-firing percentage prior to re-testing at a higher percentage.

Response:

The referenced text is a direct quote of the Rule. Therefore, no change will be made.

Revised Response:

We understand that situations may arise where the permitted capacity may not be able to be reached if firing solely on fuel oil during periods of testing. Because the rule requires tests to be conducted between 90-100% of permitted capacity in order to avoid lowering the permitted capacity, we are agreeable to allowing the co-firing of fuels during the tests to the extent necessary to maintain current allowable conditions and still meet the standards.

As a result of this comment, a new condition will be added at the end of the common conditions section under the heading of Miscellaneous Conditions.

Add:

Miscellaneous Conditions

C.21. **Not Federally Enforceable.** If particulate matter and visible emissions tests are required, the tests shall be conducted concurrently and shall be performed using the maximum fuel oil/natural gas ratio that can be fired while meeting the standards.

C. Title V permit application revision request submitted by Robert E. McGarrah, dated and received June 24, 1997.

The City of Tallahassee requests the following revisions to the attached Specific Conditions be incorporated into the Title V Operating Permit:

Revision request 1.:

Specific Condition No. 2 - The condition requires that emissions testing be conducted at 95-100% of the permitted rated heat input based on the ambient air temperature during the test. Based on a guidance memo dated September 18, 1996 issued by the FDEP Division of Air Resources Management addressing rate of operation during compliance testing for combustion turbines, the City of Tallahassee requests that the portion of

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Specific Condition No. 2 which addresses the rate of operation during emissions testing be replaced by the following language:

"Testing of emissions shall be conducted with the source operating at capacity (maximum heat input rate for the inlet air temperature to the CT during the test). Capacity is defined as 90-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input versus inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report".

Response:

Specific Condition No. 2 mentioned in the above request refers to Specific Condition No. 2 of existing air operation permit number AO65-242827. The Department agrees to the concept of the requested change, but will use standard language that has been developed and used in similar permits rather than the exact text included above.

As a result of this comment, Condition Number D.13. is changed:

From:

D.13. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)b., F.A.C.]

To:

D.13. **Not federally enforceable.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operating at permitted capacity, which is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

[AO65-242827 Specific Condition No. 2; and, Applicant Request dated June 24, 1997.]

Robert E. McGarrah

June 25, 1997

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Revision Request 2.:

The City of Tallahassee has submitted additional segment pages to the original application to allow the evaporation of boiler chemical cleaning wastes.

Response:

The department is agreeable to allowing the evaporation of on-site generated boiler chemical cleaning wastes in these boilers.

As a result of this revision request, a new condition will be added at the end of the common conditions section under the heading of Miscellaneous Conditions.

Add:

C.22. Boiler chemical cleaning waste generated on-site and determined to be non-hazardous in accordance with 40 CFR 261, Subpart C-Characteristics of Hazardous Waste & Subpart D-Lists of Hazardous Waste (as tested pursuant to 40 CFR 261 Appendix I (COLIWASA) or other appropriate FDEP approved Comprehensive Quality Assurance Plan sampling technique) may be injected in small quantities, not to exceed 50 gallons per minute, into an operating fossil fuel fired boiler. During the injection process, the boiler's operating temperature must be maintained and best operational practices to minimize excess emissions must be taken.

[Applicant Request dated June 24, 1997.]