

PSD-FL-0008
McINTOSH #3
LAKELAND

Final Determination

Review of a Proposed Air Pollution Source Pursuant to Environmental
Protection Agency Rules for the Prevention of Significant Deterioration (PSD)

40 CFR 52.21

McIntosh Unit 3

City of Lakeland, Florida

Roger O. Pfaff

U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30308

December 27, 1978

On November 26, 1978, EPA issued a Preliminary Determination that McIntosh Unit 3 could be approved with conditions under EPA Regulations for Prevention of Significant Deterioration, 40 CFR 52.21. During the 30 day public comment period, ending December 26, 1978, only the City of Lakeland commented on the determination. The City asked that a condition be added to the determination allowing the use of oil as a fuel during periods when the coal feed is lost due to equipment malfuncitons.

EPA agreed to allow this request, but only if the flue gases are scrubbed by the SO₂ scrubber. The final conditions are the same as those in the Preliminary Determination except for this extra condition. The full list of conditions of approval follows:

Conditions of Approval

1. For Particulate Emissions from the Boiler:

The source must meet an emission limit, as measured under part (5) as follows:

- A. Particulate matter emitted to the atmosphere from the boiler shall not exceed:

| <u>Mode of Firing</u> | <u>lb/10⁶ Btu Heat Input</u> |
|-----------------------|---|
| Coal | 0.044 |
| Coal/Refuse | 0.050 |
| Oil | 0.070 |
| Oil/Refuse | 0.075 |

2. For Sulfur Dioxide from the Boiler:

The source must meet an emission limit, as measured under part (5) as follows:

- A. Sulfur dioxide emitted to the atmosphere from the boiler shall

not exceed 1.2 pound per million Btu heat input derived from solid fossil fuel.

- B. A flue gas desulfurization system will be installed to treat all exhaust gases and will operate at a minimum SO₂ removal efficiency of 85 percent whenever coal is burned.
- C. The burning of oil or a combination of oil and municipal refuse as an emergency fuel without the use of the SO₂ scrubber will be allowed only when the flue gas desulfurization system malfunctions to the extent that the burning of coal would cause emission limitations to be exceeded. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.
- D. During malfunctions of equipment which cause an interruption of the coal feed to the boiler, the burning of oil or a combination of oil and municipal refuse will be allowed only if all flue gases are fully scrubbed by the SO₂ scrubber. Sulfur dioxide emitted to the atmosphere from the boiler

shall not exceed 0.6 pound per million Btu under this condition.

3. For Particulate Emissions from Materials Handling Operations:

The applicant shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, coal transfer and loading system, limestone handling or storage operation, or flyash handling or storage operation, gases which exhibit 20 percent opacity or greater.

4. For SO₂ Emissions from the boiler:

The source must meet an emission limit, as measured under part (5) as follows:

A. SO₂ emitted to the atmosphere from the boiler shall not exceed 0.7 pound per million Btu heat input when firing coal or coal/refuse.

B. SO₂ emitted to the atmosphere from the boiler shall not

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exceed 0.3 pound per million Btu heat input when firing oil or oil/refuse.

5. Stack Testing:

1. Within 60 days after achieving the maximum production rate at which the facility will be operated, but no later than 180 days after initial startup, the owner or operator shall conduct performance tests and furnish EPA a written report of the results of such performance tests. Performance tests shall be conducted for the 4 modes of boiler operation (i.e., coal, coal/refuse, oil, oil/refuse).
2. Performance tests shall be conducted and data reduced in accordance with methods and procedures specified by EPA. Reference Methods 1 through 5 as published in Appendix A of 40 CFR 60 will be used for particulate tests. Reference Method 6 will be used for SO₂ tests. Reference Method 7 will be used for NO_x tests.
3. Performance tests shall be conducted under such conditions as

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EPA shall specify based on representative performance of the facility. The owner or operator shall make available to EPA such records as may be necessary to determine the conditions of the performance tests.

3. The owner or operator shall provide EPA 30 days prior notice of the performance test to afford the opportunity to have an observer present.
5. The owner or operator shall provide or cause to be provided, performance testing facilities as follows:
 - i. Sampling ports adequate for test methods applicable to the facility.
 - ii. Safe sampling platform(s).
 - iii. Safe access to sampling platform(s).
 - iv. Utilities for sampling and testing equipment.

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F. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified by EPA. For the purpose of determining compliance with an emission limitation, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the approval of EPA, be determined by using the arithmetic mean of the other two runs.

G. Continuous Monitoring Requirements

Continuous monitors shall be installed and operated in accordance with §§ 67.50.15 and 67.12. In addition, a continuous SO₂ monitor shall be installed prior to the flue gas desulfurization system for purposes of calculating SO₂ removal efficiencies.

7. Excess Emission Reporting Requirements

In addition to the requirements of 40 CFR 60.7, each excess emission report shall include the periods of oil consumption due to flue gas desulfurization system malfunction.