



5. Non-Applicability of Regulations of Concern

- a. This permit is issued based on the replacement of the affected sulfonation reactor not constituting a major modification subject to 40 CFR 52.21, Prevention of Significant Deterioration, PSD. The Permittee has addressed the applicability of PSD, demonstrating that the increase in throughput will not result in a significant increase in emissions, subject to the limitations in conditions 6 and 7.

6. Operational and Production Limitations

Material Processed	Tons/Month	Tons/Year
SO <sub>3</sub>	1,500	18,000
Mode 2 Olefin (AOS)	187.5	2,250

Compliance with this limitation shall be determined from a running total of 12 months of data.

7. Emission Limitations

- a. Emissions from the affected sulfonation reactor shall not exceed the following limits:

Affected Furnaces No. 7 and 8	Lb/Hour	Tons/Year
PM	0.1	0.45
VOM	0.4	1.77
SO <sub>2</sub>	10.5	46
SO <sub>3</sub>	0.5	2.17

These limits are based on the usage limits in Condition 6, and information supplied in the permit application.

- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

8. Testing Requirements

- a. Within 60 days after achieving the maximum production rate at which the affected sulfonation reactor will be operated, following improvements, but not later than 180 days after initial startup of such sulfonation reactor and at such other times as may be required by the Illinois EPA under section 114 of the Act, the Permittee shall have performance test(s) conducted and furnish the Illinois EPA a written report of the results of such performance test(s).
  - i. The following methods and procedures shall be used for testing emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Sulfur Dioxide	USEPA Method 6

- b. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review and approval. This plan shall describe the specific procedures for testing including as a minimum:
    - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
    - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum emissions, the levels of operating parameters at or within which compliance is intended to be shown, if parameters for the process and any control equipment will be determined.
    - iii. The specific determination of emissions and operations intended to be made, including sampling and monitoring locations.
    - iv. The test methods to be used, with the specific analysis method.
    - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
    - vi. A statement that the testing will be performed by a qualified independent testing service.
  - c. Prior to carrying out these test, the Illinois EPA shall be notified a minimum of thirty (30) days prior to the scheduled date of these tests with the exact date, time and place of these tests, to enable the Illinois EPA to witness these tests.
  - d. If the scheduled date for the test is changed the Permittee shall inform the Illinois EPA within five (5) working days of the scheduled test date and must specify the date of the rescheduled test.
  - e. A copy of the Final Reports for these tests and compliance status shall be submitted to the Illinois EPA within fourteen days after the test results are compiled and finalized, prior to or accompanying the operating permit application. Satisfactory completion of these tests and compliance with the limitations of this permit shall be prerequisite to the issuance of an operating permit.
9. Monitoring Requirements

N/A

10. Recordkeeping Requirements

The Permittee shall maintain records of the following items related to emissions.

- i. Material Throughput (tons/month and tons/year)
- ii. Emissions of: PM, SO<sub>2</sub>, SO<sub>3</sub>, and VOM, in lb/hour and tons/year

11. Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of any exceedance with the emission limitation in the permit of the affected sulfonation reactor with the permit requirements. These reports shall be submitted within 30 days of the exceedance and shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

12. Two copies of required reports and notifications concerning equipment operation or repairs, performance testing or continuous monitoring systems shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
1701 South First Avenue  
Maywood, Illinois 60153

If you have any questions on this permit, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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ATTACHMENT 1

PSD Applicability

**Table I - Future Potential Emissions Tons/Year**

<u>VOM</u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>SO<sub>3</sub></u>
1.77	0.45	46.0	2.17

**Table II - Past Actual Emissions Tons/Year**

<u>VOM</u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>SO<sub>3</sub></u>
1.21	0.41	10.2	1.4

**Table III - Net Emissions Change (Tons/Year)**

	<u>VOM</u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>SO<sub>3</sub></u>
Table I	1.4	0.1	46.0	0.5
Table II	1.21	0.41	10.2	1.4
Totals	0.21	- 0.31	35.8	- 0.9

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