

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT
NESHAP

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle L. Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 01040069

I.D. No.: 001815AAF

Applicant's Designation: ALTERNATE FUEL

Date Received: August 16, 2001

Subject: DTDC

Date Issued: September 17, 2001

Expiration Date: September 14, 2006

Location: 1900 Gardner Expressway, Quincy

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a replacement DTDC (desolventizer-toaster, dryer, cooler) as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1. Description

Archer Daniels Midland, Quincy facility, has proposed to replace their existing desolventizer-toaster, meal dryers and meal coaters at the west plant with a new DTDC. This modification is being made in order for ADM to meet the solvent loss factor established in 40 CFR 63 Subpart GGGG that becomes effective in early 2004. Information supplied by the manufacturer of the process unit indicates that a decrease in emissions should be realized from this modification, also it demonstrates that the capacity of the new DTDC is less than or equal to the existing system therefore no debottlenecking will occur.

2. List of Emission Units and Pollution Control Equipment

DTDC Controlled by 4 Cyclones

3. Applicable Provisions and Regulations

- a. An "affected DTDC" for the purpose of these unit-specific conditions, is each piece of equipment as described in Condition 2 unless otherwise stated in the following conditions.
- b. The affected DTDC is subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321, [35 IAC 212.321(a)].

- i. The emissions of particulate matter into the atmosphere in any one hour period from the affected emission units shall not exceed the allowable emission rates specified in the following equation

$$E = A(P)^B$$

Where:

P = Process weight rate
E = Allowable emission rate

- 1. For process weight rates up to 408 Mg/hr (450 T/hr):

| | <u>Metric</u> | <u>English</u> |
|---|---------------|----------------|
| P | Mg/hr | T/hr |
| E | kg/hr | lbs/hr |
| A | 1.214 | 2.54 |
| B | 0.534 | 0.534 |

- 2. For process weight rates in excess of 408 Mg/hr (450 T/hr):

| | <u>Metric</u> | <u>English</u> |
|---|---------------|----------------|
| P | Mg/hr | T/hr |
| E | kg/hr | lbs/hr |
| A | 11.42 | 24.8 |
| B | 0.16 | 0.16 |

Where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour. [35 IAC 212.321]

- c. The affected DTDC is subject to 40 CFR 63 Subpart GGGG, vegetable oil MACT standard.

4. Non-Applicability of Regulations of Concern

The Permittee has addressed the applicability and compliance of 40 CFR 52.21, PSD. The limits and other requirements of this permit ensure that the modifications addressed in this permit do not constitute a major modification as explained in more detail in Attachment 1.

5. Operational and Production Limits and Work Practices

The affected DTDC shall not exceed historic throughput rates for the equipment which the affected DTDC replaces, as indicated in the above mentioned permit application. The Permittee shall maintain records as indicated in special condition 9 and any other data that may be necessary to demonstrate compliance with this limit.

6. Emission Limitations

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

| DTDC | Solvent Extraction Emissions | Emissions from Meal Drying and Cooing | |
|------------|------------------------------|---------------------------------------|------------------|
| | | PM | PM ₁₀ |
| Pollutant | VOM | | |
| Tons/Month | 60 | 2.6 | 1.7 |
| Tons/Year | 602.3 | 26.6 | 17.3 |

VOM limits are based on 0.2 gallon/ton solvent loss rate (MACT standard), PM emissions are based on manufacturers recommended emission rate with a 15% safety factor.

- c. 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).

7. Testing Requirements

N/A

8. Monitoring Requirements

N/A

9. Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected DTDC to demonstrate compliance with Conditions 5 and 6, pursuant to Section 39.5(7)(b) of the Act:

- a. Process weight rate as a percentage of historic value as indicated in permit application.
- b. Emissions of: PM, PM₁₀ and VOM in tons/month and tons/year.
- c. Solvent loss rate, gal/ton.

10. Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected DTDC with the permit requirements, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
- b. The Permittee shall notify the Illinois EPA, Compliance Section upon initial startup of the affected DTDC.

11. Operational Flexibility/Anticipated Operating Scenarios

The Permittee is allowed a period of 180 days from initial startup of the DTDC for a shakedown period after which they must commence recording production rate and solvent loss rate for the process.

12. Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 9 and the data in special condition 5.

If you have any questions on this, 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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cc: Region 2

Attachment 1

PSD Applicability

Table I - Past Actual Emissions (97-98 Average)
(Tons/Year)

| VOM | PM | PM ₁₀ |
|-------|------|------------------|
| 686.5 | 38.3 | 19.1 |

Table II - Future Potential Emissions (Tons/Year)

| VOM | PM | PM ₁₀ |
|-------|------|------------------|
| 602.3 | 26.6 | 17.3 |

Table III - Net Emissions Change From This Project (Tons/Year)

| Table | VOM | PM | PM ₁₀ |
|-------|--------|--------|------------------|
| I | 686.5 | 38.3 | 19.1 |
| II | 602.3 | 26.6 | 17.3 |
| Total | - 84.2 | - 11.7 | - 1.8 |

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