



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
SHELBY COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No:

05-13592

Fac ID: 0575010132

DATE: 10/26/2004

ADM Grain Company
Amy Clyde
1001 N Brush College Rd
Decatur, IL 625211656

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

SWDO



**Permit To Install
Terms and Conditions**

**Issue Date: 10/26/2004
Effective Date: 10/26/2004**

FINAL PERMIT TO INSTALL

05-13592

Application Number: 05-13592
Facility ID: 0575010132
Permit Fee: **\$200**
Name of Facility: ADM Grain Company
Person to Contact: Amy Clyde
Address: 1001 N Brush College Rd
Decatur, IL 625211656

Location of proposed air contaminant source(s) [emissions unit(s)]:
**701 South Vandemark Rd
Sidney, Ohio**

Description of proposed emissions unit(s):
Grain storage piles.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

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ADM Grain Company
PTI Application: 05-13592
Issued: 10/26/2004

Facility ID: 0575010132

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	11.344

Applicable Emissions
Limitations/Control Measures

Particulate emissions (PE) shall not exceed 0.004 ton per year (TPY).

No visible PE except for one minute during any 60-minute period.

Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Section A.2.b, A.2.c, and A.2.f).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Particulate emissions (PE) shall not exceed 11.34 TPY.

No visible PE except for one minute during any 60-minute period.

Best available control measures that are sufficient to minimize or eliminate visible emissions of

fugitive dust (see Sections A.2.d through A.2.f).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:

storage pile identification

all

- 2.b The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall minimize the drop height of the front end loader bucket to the extent possible and/or treat the load-in and load-out material(s) with mineral oil if needed, in order to minimize or eliminate visible emissions of fugitive dust from the loading area. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- 2.d The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall maintain a low storage pile heights and/or mineral oil treatment to minimize or eliminate visible emissions of fugitive dust from storage pile wind erosion. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of

OAC rule 3745-31-05.

B. Operational Restrictions

None

C. Monitoring and/or Record keeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-in inspection frequency</u>
all	daily

- 2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-out inspection frequency</u>
all	daily

- 3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum wind erosion inspection frequency</u>
all	daily

- 4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

- 5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the

surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

6. The permittee shall maintain records of the following information:
 - a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. The date of each inspection where it was determined by the permittee that it was necessary to implement control measures;
 - c. The dates the control measures were implemented; and
 - d. On a calendar quarter basis, the total number of days control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 6.d shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
 - a. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

These reports shall be submitted in accordance with Section A.2 of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
 Particulate emissions shall not exceed 0.04 TPY from plant load-in and load-out of storage piles.

Compliance Method:

Compliance shall be determined based on the emission factor calculation for drop operations associated with storage piles in AP-42 Section 13.2.4 (01/95). Initial compliance has been determined using inputs representing current conditions as follows:

$$E = k (0.0032)[(U/5)^{1.3}/(M/2)^{1.4}]$$

Where:

E = emission factor expressed in pounds (lbs) / ton

k = particle size multiplier for TSP (dimensionless) = 0.74

U = mean wind speed expressed in miles per hour (MPH) = 10.1

M = material moisture content (%) = 15

Therefore, $E = 3.5 \times 10^{-4}$ lb PE/ton

maximum annual load-in throughput = 11,200 tons/year

maximum annual load-out throughput = 11,200 tons/year

$$\begin{aligned} & [(11,200 \text{ tons/yr})(3.5 \times 10^{-4} \text{ lb PE/ton}) + (11,200 \text{ tons/yr})(3.5 \times 10^{-4} \text{ lb PE/ton})] / 2000 \text{ lb/ton} \\ & = 0.004 \text{ TPY} \end{aligned}$$

- b. Emission Limitation:
 Particulate emissions shall not exceed 11.34 TPY from wind erosion of storage piles.

Compliance Method:

Compliance shall be determined based on the emission factor calculation for wind erosion from storage piles in BACM, Equation 2-12 (September, 1992). Initial compliance has been determined using inputs representing current conditions as follows:

$$E = 1.7(s/1.5)((365-p)/235)(f/15)$$

Where:

E = emission factor expressed in pounds (lbs) /day/acre

s = silt content of surface material (%) = 80

p = number of rain days per year > 0.01 in = 120

f = percentage of time wind speed exceeds 12 mph (%) = 30

A = total surface area of storage piles (acres) = 2

Therefore, E = 180 lbs/day/acre

$(180 \text{ lbs/day/acre})(90 \text{ days/yr})(2 \text{ acres})/2000 \text{ lbs/ton} = 16.2 \text{ TPY uncontrolled PE}$

Assume 30% control for precautionary operating practices (RACM, Table 2.1.1-8)

$(16.2 \text{ tons/year})(1 - 0.30) = 11.34 \text{ TPY controlled PE}$

- c. Emission Limitation:
No visible PE except for one minute during any 60-minute period.

Compliance Method:

If required, compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

ADM Grain Company
PTI Application: 05-13592
Issued: 10/26/2004

Facility ID: 0575010132

Emissions Unit ID: **F001**

Ohio EPA Permit to Install Information Form

Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Air PTI**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

<i>Please fill out the following. If the checkbox does not work, replace it with an 'X'</i>	<u>Electronic</u>	<u>Additional information</u> File Name Convention (your PTI # plus this letter)	<u>Hard Copy</u>	<u>None</u>
Calculations (required)	<input checked="" type="checkbox"/>	see below	<input type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

ADM is proposing to install emergency grain storage piles. Due to the abnormally large harvest, ADM does not have adequate storage silos. They are proposing to temporarily store the grain in piles. ADM expects the storage piles to be a temporary emergency solution.

I was concerned that the practice of storing grain in piles would cause numerous problems including fugitive dust, attracting rodents, and causing odors after getting wet and decaying. According to ADM, this is a standard industry practice which does not require permits in other Region V states. To confirm ADM's assertion, I spoke with Chris White of ENSR in Minnesota (Chris is an expert in the agricultural business). Chris confirmed that storing grain in piles is a common practice and it does not cause excessive fugitive dust, odors or attract rodents.

Emission calculations for load-in, load-out and wind erosions were performed similar to those for aggregate or coal storage piles. The wind erosion calculation was copied from recently issued permits for storage piles. The equation is from a BACM manual that CO advised SEDO to use for PTI 06-07509, issued on 8/17/04. We assumed worst case for input factors, i.e., 80% for silt content. Also, this operation only occurs during harvest. So, we conservatively assumed that the maximum number of days of storage is 90.

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**
 Permit To Install **ENTER PTI NUMBER HERE**

ADM
PTI A
Issued: 10/26/2004

Emissions Unit ID: **F001**

- A. [Source Description](#)
- B. [Facility Emissions and Attainment Status](#)
- C. [Source Emissions](#)
- D. [Conclusion](#)

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

CALCULATIONS:

Load-in and Load-out

$$E = k (0.0032)[(U/5)^{1.3}/(M/2)^{1.4}] - \text{AP-42 Section 13.2.4 (01/95)}$$

where

k = particle size multiplier, 0.74 for TSP

U = mean wind speed, 10.1 mph

M = material moisture content in % by weight, 15

$$E = 0.74 (0.0032)[(10.1/5)^{1.3} / (M15/2)^{1.4}] = 0.00035 \text{ lb/ton}$$

$$\text{Therefore, } E = 3.5 \times 10^{-4} \text{ lb PE/ton}$$

$$\text{Annual} = (11,200 \text{ tons in} + 11,200 \text{ tons out})(3.5 \times 10^{-4} \text{ lb PE/ton})(1 \text{ ton}/2000 \text{ lbs}) = 0.004 \text{ TPY}$$

Wind Erosion

$$E = 1.7(s/1.5)((365-p)/235)(f/15)$$

where

s = silt content of stored material (%) = 80 (worst case from AP-42 Table 13.2.4-1)

p = number of rain days per year > 0.01 in = 120

f = percentage of time wind speed exceeds 12 mph (%) = 30

A = total surface area of storage piles (acres) = 2.0

$$E = 1.7(80/1.5)((365-120)/235)(30/15) = 180 \text{ lbs/day/acre}$$

$$(180 \text{ lbs/day/acre})(90 \text{ days/yr})(2 \text{ acres})/2000 \text{ lbs/ton} = 16.2 \text{ TPY uncontrolled PE}$$

Assume 30% control for precautionary operating practices (RACM, Table 2.1.1-8)

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$(16.2 \text{ tons/year})(1 - 0.3) = 11.34 \text{ TPY controlled PE}$

Please complete:

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant
PE

Tons Per Year
11.344