Richard Dickinson
A. E. Staley Manufacturing Company
2200 East Eldorado Street
Decatur, IL 62525

Re: 157-12715-00003

Amendment to CP 157-10232-00003

Dear Mr. Dickinson:

A. E. Staley Manufacturing Company was issued a permit on October 12, 1999 for a grain processing plant located at 2245 North Sagamore Parkway, Lafayette, IN 47902. A revision was requested by the Office of Legal Counsel to change several conditions in order to settle an appeal of the permit.

Construction Condition #6 in the permit is hereby amended as follows:

## First Time Operation Permit

- 6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met after receiving an approval to construct and prior to receiving approval to operate, the Permittee submits an affidavit of construction in accordance with the following:
  - (a) The attached affidavit of construction, or an affidavit of construction as described at 326 IAC 2-7-10.5(h)(1)(A), shall be prepared, notarized, and submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application in conformance with the request to construct, and that the emission units will comply with the Construction Permit. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) The affidavit of construction shall be submitted either after construction of all the emission units described in the Permit or after each phase of the construction of the emission units described in the Permit, as applicable, has been completed. If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction.

    Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) The Permittee may operate the emission units described in the Permit and covered by the affirmation in the affidavit of construction upon submission of the affidavit of construction to OAM. The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
- (e) The Permittee has submitted a Part 70 application (T159-6009-00003) on May 31, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Furthermore, Operation Conditions 1, 4, 6, 7, 10 and 13 are amended as follows:

## **General Operation Conditions**

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM). Any change in the operation of these emission units is governed by 326 IAC 2-7-10.5.

#### Transfer of Permit

- 4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
- (a) In the event that ownership **or control of the Source** is changed, the Permittee shall notify OAM, Permits Branch, **in accordance with 326 IAC 2-7-11** within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

## **Availability of Permit**

6. That <del>pursuant to 326 IAC 2-1-3(I),</del> the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

#### Performance Testing

- 7. That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for volatile organic compound emissions and efficiency of the packed bed scrubber from the starch slurry reactors (S/V #50) within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.
  - (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test **date**.
  - (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
  - (c) All test reports for which a test protocol was submitted pursuant to 326 IAC 3-6-3 must be received by the Compliance Data Section within 45 days of completion of the testing. An extension may be granted pursuant to 326 IAC 3-6-4.

(d) If the results of the stack test performed exceed the level specified in this permit, the Permittee will take appropriate response actions. appropriate corrective actions shall be implemented as soon as practical upon receipt of the test results. The Permittee shall minimize emissions while the corrective actions are being implemented.

(e) If the results of the stack test performed exceed the level specified in this permit, **IDEM**may require a second test to demonstrate compliance shall be performed. Failure to
demonstrate compliance may be grounds for immediate revocation of this permit to
operate the affected facility pursuant to 326 IAC 2-1.1-9. **IDEM**, **OAM** reserves the
authority to take any actions allowed under law to resolve noncompliant stack
tests.

## **Emergency Reduction Plans**

- 10. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):
  - (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on July 16, 1999.
  - (b) If the ERP is disapproved by IDEM, OAM, the permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the permittee does not submit an approvable ERP, IDEM, OAM, shall supply such a plan.
  - (c) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
  - (d) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
  - (e) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3]

### Reporting Requirements

- 13. That a log of information necessary to document compliance with Operation Condition 11 shall be maintained. These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAM).
  - (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within thirty (30) calendar days after the end of the quarter being reported in the format attached.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
  - (i) Postmarked on or before the date it is due; or
  - (ii) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) The probable cause of such deviations and any corrective actions or preventive measures taken must be clearly identified in such reports.
- (e) The first report shall cover the period between the postmarked submission date of the Affidavit of Construction and the end of the quarterly period.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Management

Attachments ARD

cc: File - Tippecanoe County
U.S. EPA, Region V
Tippecanoe County Health Department
Air Compliance Section Inspector - Eric Courtright
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

# CONSTRUCTION PERMIT OFFICE OF AIR MANAGEMENT

## A. E. Staley Manufacturing Company 2245 North Sagamore Parkway Lafayette, IN 47901

is hereby authorized to construct

two new reactors, identified as 15VAAA & 15VBBB, exhausting to one new propylene oxide scrubber identified as 15FXXX connected to one (1) stack identified as S/V #50. These two reactors will work in conjunction with eleven (11) existing reactors, which will also exhaust to scrubber 15FXXX.

The maximum capacity is considered confidential information as requested by A.E. Staley Manufacturing Company.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-157-10232-00003	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: October 12, 1999
Amendment 157-12715-00003	Pages Amended: 2-7
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

A. E. Staley Manufacturing Company
Lafayette, Indiana

First Administrative Amendment 157-12715-00003

Amended by: Allen R. Davidson

Permit Reviewer: Hua R. Zhu / Allen R. Davidson

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#### **Construction Conditions**

## **General Construction Conditions**

- 1. That the data and information supplied with the application shall be considered part of this permit. Prior to <u>any</u> proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
- 2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

## Effective Date of the Permit

- 3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
- 4. That pursuant to 326 IAC 2-1.1-9(5) (Revocation), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### First Time Operation Permit

- 6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-7-10.5(h) when, after receiving an approval to construct and prior to receiving approval to operate, the Permittee submits an affidavit of construction in accordance with the following:
  - (a) The attached affidavit of construction, or an affidavit of construction as described at 326 IAC 2-7-10.5(h)(1)(A), shall be prepared, notarized, and submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed in conformance with the request to construct, and that the emission units will comply with the Construction Permit.
  - (b) The affidavit of construction shall be submitted either after construction of all the emission units described in the Permit or after each phase of the construction of the emission units described in the Permit, as applicable, has been completed.
  - (c) The Permittee may operate the emission units described in the Permit and covered by the affirmation in the affidavit of construction upon submission of the affidavit of construction to OAM.
- 7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

A. E. Staley Manufacturing Company First Administrative Amendment 157-12715-00003 Lafayette, Indiana Amended by: Allen R. Davidson Permit Reviewer: Hua R. Zhu / Allen R. Davidson

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## **Operation Conditions**

## **General Operation Conditions**

- 1. That the data and information supplied in the application shall be considered part of this permit. Any change in the operation of these emission units is governed by 326 IAC 2-7-10.5.
- 2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

## Preventive Maintenance Plan

- 3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
  - Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
  - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
  - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

## Transfer of Permit

4. In the event that ownership or control of the Source is changed, the Permittee shall notify OAM, Permits Branch, in accordance with 326 IAC 2-7-11.

## Permit Revocation

- 5. That pursuant to 326 IAC 2-1.1-9 (Revocation), this permit to construct and operate may be revoked for any of the following causes:
  - (a) Violation of any conditions of this permit.
  - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
  - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
  - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
  - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

#### Availability of Permit

6. That the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

A. E. Staley Manufacturing Company First Administrative Amendment 157-12715-00003 Lafayette, İndiana Amended by: Allen R. Davidson

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#### Performance Testing

- 7. That compliance stack tests shall be performed for volatile organic compound emissions and efficiency of the packed bed scrubber from the starch slurry reactors (S/V #50) within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.
  - A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in (a) advance of the test date.
  - The Compliance Data Section shall be notified of the actual test date at least two (2) (b) weeks prior to the date.
  - (c) All test reports for which a test protocol was submitted pursuant to 326 IAC 3-6-3 must be received by the Compliance Data Section within 45 days of completion of the testing. An extension may be granted pursuant to 326 IAC 3-6-4.
  - (d) If the results of the stack test performed exceed the level specified in this permit, the Permittee will take appropriate response actions.
  - (e) If the results of the stack test performed exceed the level specified in this permit, IDEM may require a second test to demonstrate compliance. IDEM, OAM reserves the authority to take any actions allowed under law to resolve noncompliant stack tests.

#### Malfunction Condition

- 8. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):
  - A record of all malfunctions, including startups or shutdowns of any facility or emission (a) control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
  - (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
  - Failure to report a malfunction of any emission control equipment shall constitute a (c) violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
  - (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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## **Annual Emission Reporting**

9. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by July 1of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

## **Emergency Reduction Plans**

- 10. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):
  - (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on July 16, 1999.
  - (b) If the ERP is disapproved by IDEM, OAM, the permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
  - (c) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
  - (d) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
  - (e) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3]

#### Volatile Organic Compound (VOC) Limitation

11. That pursuant to 326 IAC 8-1-6, the input of propylene oxide to the propylated starch production for the acid killed and the non-acid killed steps shall be limited to 15,000 tons per 12 consecutive month period. This limitation, including the effect of the packed bed scrubber, will prevent the VOC from the process being greater than 40 tons per year. This limitation requires the use of a packed bed scrubber with a minimum reduction efficiency of 95%. This packed bed scrubber is accepted as being BACT for this operation.

During the first 12 months of operation, the propylene oxide usage shall be limited such that the total propylene oxide used in the accumulated months divided by the accumulated months of operation shall not exceed 1250 tons per month.

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#### **Scrubber Operating Condition**

- 12. That the scrubber for the starch slurry reactors shall be operated at all times when the reactors are in operation.
  - (a) The Permittee shall continuously monitor and record the flow rate of the scrubber.

    Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the flow rate of the scrubber shall be maintained at a minimum of 390 gallons of liquid per minute.
  - (b) The instruments used for determining the flow rate shall be calibrated in accordance with the manufacturer's specifications or shall be subject to approval by IDEM.
  - (c) An inspection shall be performed semi-annually of the scrubber. Defective scrubber part(s) shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber part(s) replaced.
  - (d) In the event that a scrubber's failure has been observed:
    - (i) The affected process will be shut down immediately until the failed unit has been replaced. A record shall be made of steps taken to address the failed unit.

## Reporting Requirements

- 13. That a log of information necessary to document compliance with Operation Condition 11 shall be maintained. These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAM).
  - (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within thirty (30) calendar days after the end of the quarter being reported in the format attached.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
  - (i) Postmarked on or before the date it is due; or
  - (ii) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.
- (c) The first report shall cover the period between the postmarked submission date of the Affidavit of Construction and the end of the quarterly period.

A. E. Staley Manufacturing Company First Administrative Amendment 157-12715-00003 Lafayette, Indiana Amended by: Allen R. Davidson Permit Reviewer: Hua R. Zhu / Allen R. Davidson

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