



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
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Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL
HAMILTON COUNTY
Application No: 14-05901
Fac ID: 1431482590**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 12/20/2007

Cargill Flavor Systems
Deron Denton
10311 Chester Road
Cincinnati, OH 45215-1224

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

Michael W. Ahern !

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

CC: USEPA

HCDES



Permit To Install
Terms and Conditions

Issue Date: 12/20/2007
Effective Date: 12/20/2007

FINAL PERMIT TO INSTALL 14-05901

Application Number: 14-05901
Facility ID: 1431482590
Permit Fee: **\$600**
Name of Facility: Cargill Flavor Systems
Person to Contact: Deron Denton
Address: 10311 Chester Road
Cincinnati, OH 45215-1224

Location of proposed air contaminant source(s) [emissions unit(s)]:
1000 Redna Terrace
Cincinnati, Ohio

Description of proposed emissions unit(s):
Modifying the emissions limitations of existing sources, due to emissions re-calculations. Will supersede PTI 14-305, PTI 14-2285, and PTI 14-3486.

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

Chris Korleski
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 (i.e., postmarked) quarterly 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.

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	19.14
OC	21.37

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment - (P001) - Spray Dryer 1 - Modification

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 1.5 pounds per hour and 6.57 tons per year (TPY).
OAC rule 3745-31-05(C)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.b.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.c.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.d.
OAC rule 3745-17-11(B)	See term and condition A.2.e.
OAC rule 3745-21-07(G)	Exempt, see term and condition B.1 below.

2. Additional Terms and Conditions

- 2.a Permit to Install 14-05901 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. for Particulate Emissions (PE) and Particulate Matter emissions 10 microns and less in diameter (PM10): the permittee shall install, operate, and maintain two cyclones and a wet scrubber on this emission unit.
- 2.b The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.c The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

- 2.d** The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
- 2.e** The PE from the outlet of the scrubber controlling this emissions unit shall not exceed 1.15 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.f** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the specified mass emission limitations and the use of a wet scrubber.

B. Operational Restrictions

- 1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the scrubber and the scrubber liquid flow rate on a daily basis.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;

- h. the date and time the deviation ended;
- i. the total period of time (in minutes) of the deviation;
- j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range or limit for the pressure drop across the scrubber and the liquid flow rate, that shall be maintained in order to demonstrate compliance, shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

These range(s) and/or limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable OC emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- 2. The permittee shall record the percentage of Sodium Hypochlorite solution employed during operation of this emissions unit when producing butter flavor. The permittee shall record the percentage of Sodium Hypochlorite solution employed for each batch of butter flavor produced.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters at or above the minimum limit specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) of the deviation;
- j. the percentage of Sodium Hypochlorite solution employed immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable limit for the percentage of Sodium Hypochlorite solution employed when producing butter flavor, that shall be maintained in order to demonstrate compliance, shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This minimum limit is 12.5% Sodium Hypochlorite solution effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the permitted limit for the percentage of Sodium Hypochlorite solution employed. In addition, approved revisions to the limits will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal

operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. The permittee shall record, each day, an indication of whether or not each liquid organic material employed in this emissions unit is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. each period of time when the pressure drop across the scrubber and/or the liquid flow rate was outside of the appropriate range or limit specified by the manufacturer;
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range or limit, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. If no visible particulate emissions were observed during the reporting period, the permittee shall state so in the report. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

3. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material was employed in the emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

E. Testing Requirements

1. Compliance with the emissions limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

- a. **Emission Limitation:**

The PE from the outlet of the scrubber controlling emission unit P001 shall not exceed 1.15 pounds per hour.

Applicable Compliance Method:

The hourly PE rate limitation is based on Table I in OAC rule 3745-17-11. The maximum emissions shall be calculated by: [(maximum pounds per hour of product fed into emission unit P001) x ((1 - 92%) average yield in spray dryer) x ((1 - 80%) product lost inside dryer and on floor) x ((1 - 90%) control efficiency of scrubber)].

- b. **Emission Limitation:**

The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

If required, compliance shall be determined through particulate emissions stack testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5, or through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(7).

- c. **Emission Limitation:**

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

d. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(3).

e. Emission Limitation:

The controlled potential to emit for PE and PM10 is less than ten tons per year.

Applicable Compliance Method:

The annual PE-PM10 emission rate is based on this emission unit's controlled potential to emit. The annual PE-PM10 emission rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P001) x ((1 - 92%) average yield in spray dryer) x ((1 - 80%) product lost inside dryer and on floor) x ((1 - 90%) control efficiency of scrubber)] + fugitive emissions [maximum pounds per hour of product fed into emission unit P001) x ((1-92%) average yield in spray dryer) x (80% product lost inside dryer and on floor) x (90% of product lost is lost outside of dryer) x (5% of product lost outside of dryer is considered fugitive)] x 8760 hours per year / 2000 pounds per ton.

f. Emission Limitation:

Organic compound (OC) emissions shall not exceed 1.5 pounds per hour and 6.57 tons per year (TPY).

Applicable Compliance Method:

The maximum hourly OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into P001) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)].

The maximum annual OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into P001) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)] x 8760 hours operated per year / 2000 pounds per ton.

2. Compliance with the photochemically reactive material usage limitation in term and condition B.1 shall be determined by the record keeping requirements specified in term and condition C.4.

Cargill Flavor Systems

PTI Application: 14-05901

Issued: 12/20/2007

Facility ID: 1431482590

Emissions Unit ID: P001

F. Miscellaneous Requirements

1. The terms and conditions of this air permit to install shall supersede the terms and conditions of permit to install 14-00305 issued on September 11, 1980.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment - (P002) - Spray Dryer 2 - Modification

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)(b)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.b.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.c.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.d.
OAC rule 3745-17-11(B)	See term and condition A.2.e.
OAC rule 3745-21-07(G)	Exempt, see term and condition B.1 below.
OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 0.4 pound per hour and 1.66 tons per year (TPY).

2. Additional Terms and Conditions

- 2.a The best available technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source since the potential to emit for PE and PM10 is less than 10.0 TPY.
- 2.b The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.c The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

- 2.d** The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
- 2.e** The PE from the outlet of the scrubber controlling this emissions unit shall not exceed 0.551 pound per hour based on Table I in OAC rule 3745-17-11(B).
- 2.f** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC emission limitations and the use of a wet scrubber.

B. Operational Restrictions

- 1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the scrubber and the scrubber liquid flow rate on a daily basis.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) of the deviation;
- j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range or limit for the pressure drop across the scrubber and the liquid flow rate, that shall be maintained in order to demonstrate compliance, shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

These range(s) and/or limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable OC emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- 2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

3. The permittee shall record, each day, an indication of whether or not each liquid organic material employed in this emissions unit is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. each period of time when the pressure drop across the scrubber and/or the liquid flow rate was outside of the appropriate range or limit specified by the manufacturer;
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range or limit, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. If no visible particulate emissions were observed during the reporting period, the permittee shall state so in the report. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material was employed in the emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

E. Testing Requirements

1. Compliance with the emissions limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**
OC emissions shall not exceed 0.4 pound per hour and 1.66 TPY.

Applicable Compliance Method:

The maximum hourly OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P002) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)].

The maximum annual OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P002) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)] x 8760 hours operated per year / 2000 pounds per ton.

- b. **Emission Limitation:**

Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) from this emissions unit are less than ten tons per year.

Applicable Compliance Method:

The annual PE and PM10 emission rate is based on the emissions unit's potential to emit. The potential to emit was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: $[(75 \text{ pounds of product fed into P002 per hour (maximum capacity)}) \times ((1 - 92\%) \text{ average yield in spray dryer}) \times ((1 - 80\%) \text{ product lost inside dryer and on floor})] + \text{fugitive emissions [75 pounds per hour of product fed into P002 (maximum capacity)} \times ((1-92\%) \text{ average yield in spray dryer}) \times (80\% \text{ product lost inside dryer and on floor}) \times (90\% \text{ of product lost is lost outside of dryer}) \times (5\% \text{ of product lost outside of dryer is considered fugitive})] \times 8760 \text{ hours per year} / 2000 \text{ pounds per ton.}$

c. Emission Limitation:

The PE from the outlet of the scrubber controlling emission unit P002 shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

The hourly PE rate limitation is based on Table 1 in OAC rule 3745-17-11. The maximum emissions shall be calculated by: $[(\text{maximum pounds per hour of product fed into emission unit P002}) \times ((1 - 92\%) \text{ average yield in spray dryer}) \times ((1 - 80\%) \text{ product lost inside dryer and on floor}) \times ((1 - 90\%) \text{ control efficiency of scrubber})]$.

d. Emission Limitation:

The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

If required, compliance shall be determined through particulate emissions stack testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5, or through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(7).

e. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(3).

2. Compliance with the photochemically reactive material usage limitation in term and condition B.1 shall be determined by the record keeping requirements specified in term and condition C.3.

F. Miscellaneous Requirements

1. The terms and conditions of this air permit to install shall supersede the terms and conditions of permit to install 14-02285 issued on January 15, 1992.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment -(P003) - Spray Dryer 3 - Modification

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 3.0 pounds per hour and 13.14 tons per year (TPY). Particulate emissions (PE) and Particulate Matter emissions 10 microns and less in diameter (PM10) from the stack shall not exceed 0.96 pound per hour and 4.20 tons per year (TPY). Fugitive PE and PM10 emissions shall not exceed 1.73 pounds per hour and 7.58 TPY.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.a.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.b.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.c.
OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-07(G)	Exempt, see term and condition B.1 below.

2. Additional Terms and Conditions

- 2.a The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.b The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

- 2.c** The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
- 2.d** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the specified mass emission limitations, visible emissions limitations and the use of a wet scrubber.

B. Operational Restrictions

- 1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), is prohibited.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the scrubber and the scrubber liquid flow rate on a daily basis.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;

- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) of the deviation;
- j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range or limit for the pressure drop across the scrubber and the liquid flow rate, that shall be maintained in order to demonstrate compliance, shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

These range(s) and/or limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate for this emissions unit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall record the percentage of Sodium Hypochlorite solution employed during operation of this emissions unit when producing butter flavor. The permittee shall record the percentage of Sodium Hypochlorite solution employed for each batch of butter flavor produced.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters at or above the minimum limit specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) of the deviation;
- j. the percentage of Sodium Hypochlorite solution employed immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable limit for the percentage of Sodium Hypochlorite solution employed when producing butter flavor, that shall be maintained in order to demonstrate compliance, shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This minimum limit is 12.5% Sodium Hypochlorite solution effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the permitted limit for the percentage of Sodium Hypochlorite solution employed. In addition, approved revisions to the limits will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- 3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- 4. The permittee shall record, each day, an indication of whether or not each liquid organic material employed in this emissions unit is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

D. Reporting Requirements

- 1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. each period of time when the pressure drop across the scrubber, the liquid flow rate, and/or the liquid pH was outside of the appropriate range or limit specified by the manufacturer;
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop, liquid flow rate, and/or liquid pH into compliance with the acceptable range or limit, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. If no visible particulate emissions were observed during the reporting period, the permittee shall state so in the report. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material was employed in the emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

E. Testing Requirements

1. Compliance with the emissions limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**

The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:
If required, compliance shall be determined through particulate emissions stack testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5, or through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(7).
 - b. **Emission Limitation:**

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.

Cargill Flavor Systems

PTI Application: 14-05901

Issued: 12/20/2007

Facility ID: 1431482590

Emissions Unit ID: P003

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

c. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

PE and PM10 from the stack shall not exceed 0.96 pound per hour and 4.20 TPY.

Applicable Compliance Method:

The maximum hourly PE and PM10 from the stack emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P003) x ((1 - 92%) average yield in spray dryer) x ((1 - 80%) product lost inside dryer and on floor) x ((1 - 90%) control efficiency of scrubber)].

The maximum annual PE and PM10 from the stack emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P003) x ((1 - 92%) average yield in spray dryer) x ((1 - 80%) product lost inside dryer and on floor) x ((1 - 90%) control efficiency of scrubber)] x maximum number of hours operated per year / 2000 pounds per ton.

e. Emission Limitation:

Fugitive PE and PM10 emissions shall not exceed 1.73 pounds per hour and 7.58 TPY.

Applicable Compliance Method:

The maximum hourly PE and PM10 fugitive emission rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [maximum pounds per hour of product fed into emission unit P003) x ((1-92%) average yield in spray dryer) x (80% product lost inside dryer and on floor) x (90% of product lost is lost outside of dryer) x (5% of product lost outside of dryer is considered fugitive)].

The maximum annual fugitive emission rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P003) x ((1-92%) average yield in spray dryer) x (80% product lost inside dryer and on floor) x (90% of product lost is lost outside of dryer) x (5% of product lost outside of dryer is considered fugitive)] x maximum number of hours operated per year / 2000 pounds per ton.

f. Emission Limitation:

OC emissions shall not exceed 3.0 pounds per hour and 13.14 TPY.

Applicable Compliance Method:

The maximum hourly OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P003) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)].

The maximum annual OC emissions rate shall be calculated by the following equation using the information submitted by the permittee in PTI Application 14-05901, submitted on December 7, 2006: [(maximum pounds per hour of product fed into emission unit P003) x (20% flavor loading (OC content)) x (5% OC loss assumed to atmosphere) x ((1 - 50%) control efficiency of scrubber)] x 8760 hours operated per year / 2000 pounds per ton.

2. Compliance with the photochemically reactive material usage limitation in term and condition B.1 shall be determined by the record keeping requirements specified in term and condition C.4.

F. Miscellaneous Requirements

1. The terms and conditions of this air permit to install shall supersede the terms and conditions of permit to install 14-03486 issued on August 3, 1994.