



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: January 6, 2009

RE: Mars Petcare US, Inc. / 075-25000-00110

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot12/03/07



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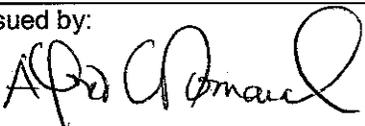
## Minor Source Operating Permit Renewal and New Source Review (NSR) OFFICE OF AIR QUALITY

**Mars Petcare US, Incorporated**  
**218 NE Lincoln Avenue**  
**Portland, Indiana 47371**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M075-25000-00010	
Issued by:  Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: January 6, 2009  Expiration Date: January 6, 2019

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary pet food manufacturing source.

Source Address:	218 NE Lincoln Avenue, Portland, Indiana 47371
Mailing Address:	P.O. Box 683006, Franklin, TN 47068
General Source Phone Number:	(615) 807-4626
SIC Code:	2047
County Location:	Jay
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas-fired boiler, using propane as back-up fuel, identified as Boiler #1, installed in 1974, exhausting through Stack ST22, rated at 8.3 million British thermal units per hour (MMBtu/hr).
- (b) One (1) hammermill, identified as EP-02 (Hammermill Bliss 38095), installed in 1992, equipped with a MAC baghouse for particulate control, exhausting through Stack ST01, capacity: 3 tons of dry ingredients per hour.
- (c) One (1) truck receiving operation, consisting of a grain elevator, installed in 1981, capacity: 40 tons of dry ingredients per hour.
- (d) Eight (8) storage silos, with a bottleneck production rate of 5.25 tons per hour of dry ingredients total (maximum capacity 22.5 tons of dry ingredients per hour total), equipped with baghouse for particulate control, exhausting through stacks ST24 through ST31.

#### **Biscuit line number 1**

- (e) One (1) natural gas-fired oven, equipped with six (6) burners, using propane as back-up fuel, identified as Oven #1, installed in 1989, exhausting through stacks ST07 through ST12, rated at 7.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (f) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #1, installed in 1989, equipped with a cyclone for particulate control, exhausting through stack ST19, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

#### **Biscuit line number 2**

- (g) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up

fuel, identified as Oven #2, installed in 1991, exhausting through stacks ST13 through ST15, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

- (h) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #2, installed in 1991, equipped with a cyclone for particulate control, exhausting through stack ST20, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Biscuit line number 3**

- (i) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up fuel, identified as Oven #3, installed in 1993, exhausting through stacks ST16 through ST18, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (j) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #3, installed in 1993, equipped with a cyclone for particulate control, exhausting through stack ST21, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Wholemeals™ Line**

A pet food processing line consisting of:

- (k) One (1) hammermill, identified as EP-03 (Hammermill Bliss 4430), installed in 1996, equipped with a MAC baghouse for particulate control, exhausting through Stack ST02, with a bottleneck production rate of 3.37 tons of dry ingredients per hour (maximum capacity of 8 tons of dry ingredients per hour). This unit will be dedicated to the Wholemeals™ line.
- (l) Two (2) extruders and a spiral cooler, identified as Outer Extruder and Inner Extruder, approved for construction in 2008, with a bottleneck production rate of 5.25 tons per hour total (maximum capacity 2.76 tons each).
- (m) One (1) storage silo, identified as Bulk Flour Storage, approved for construction in 2008, with a 45 tons storage capacity and a bottleneck production rate of 1.78 tons of flour per hour.
- (n) One (1) Flour Unloading Filter Receiver consisting of a silo vent fan, fluidized flour blower, transfer flour blower and one (1) Flour Re-feed Filter Receiver (maximum transfer rate of 8.27 tons per hour of flour each), located outside the building, approved for construction in 2008, with a bottleneck production transfer rate of 1.78 tons of flour per hour each. The receivers are equipped with an explosion vent.
- (o) One (1) Outer Pre-blend Blower and one (1) Outer Pre-blend Receiver, located inside the building, with a bottleneck production rate of 2.15 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (p) One (1) Inner Pre-blend Blower and one (1) Inner Pre-blend Filter Receiver, located inside the building, with a bottleneck production rate of 1.59 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (q) One (1) Rice Flour Re-feed Receiver, located inside the building, with a bottleneck production rate of 1.78 tons per hour of pre-blend material (maximum capacity of 8.27 tons per hour of pre-blend material), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.

- (r) One (1) CTMP Blower and one (1) CTMP Filter Receiver, located inside the building, with a bottleneck production rate of 0.10 ton per hour of pre-blend material (maximum capacity of 0.99 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-1.1-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

### **B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

- 
- (a) This permit, M075-25000-00010, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### **B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### **B.4 Enforceability**

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5 Severability**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.6 Property Rights or Exclusive Privilege**

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This permit does not convey any property rights of any sort or any exclusive privilege.

### **B.7 Duty to Provide Information**

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

#### B.8 Certification

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

#### B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, IN 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

#### B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M075-25000-00010 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.13 Permit Renewal [326 IAC 2-6.1-7]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
  - (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]**

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(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.15 Source Modification Requirement**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

**B.16 Inspection and Entry**

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]**

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(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.18 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees due within thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.19 Credible Evidence [326 IAC 1-1-6]**

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For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Permit Revocation [326 IAC 2-1.1-9]**

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to 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 this article.

**C.3 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-6.1-5(a)(2)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

## **Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]**

### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

### **C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### **C.12 Instrument Specifications [326 IAC 2-1.1-11]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

## **Corrective Actions and Response Steps**

### **C.13 Response to Excursions or Exceedances**

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or

- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.14 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

**C.15 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission 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 Quality (OAQ) 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 OAQ, 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.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a 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]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) natural gas-fired boiler, using propane as back-up fuel, identified as Boiler #1, installed in 1974, exhausting through Stack ST22, rated at 8.3 million British thermal units per hour (MMBtu/hr).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

#### D.1.1 Particulate Emission Limitations [326 IAC 6-2-3]

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Pursuant to 326 IAC 6-2-3(e), the particulate emissions from Boiler #1 shall not exceed 0.6 pounds per million British thermal units heat input.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### **Emissions Unit Description:**

- (b) One (1) hammermill, identified as EP-02 (Hammermill Bliss 38095), installed in 1992, equipped with a MAC baghouse for particulate control, exhausting through Stack ST01, capacity: 3 tons of dry ingredients per hour.
- (c) One (1) truck receiving operation, consisting of a grain elevator, installed in 1981, capacity: 40 tons of dry ingredients per hour.
- (d) Eight (8) storage silos, with a bottleneck production rate of 5.25 tons per hour of dry ingredients total (maximum capacity 22.5 tons of dry ingredients per hour total), equipped with baghouse for particulate control, exhausting through stacks ST24 through ST31.

### **Biscuit line number 1**

- (e) One (1) natural gas-fired oven, equipped with six (6) burners, using propane as back-up fuel, identified as Oven #1, installed in 1989, exhausting through stacks ST07 through ST12, rated at 7.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (f) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #1, installed in 1989, equipped with a cyclone for particulate control, exhausting through stack ST19, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Biscuit line number 2**

- (g) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up fuel, identified as Oven #2, installed in 1991, exhausting through stacks ST13 through ST15, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (h) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #2, installed in 1991, equipped with a cyclone for particulate control, exhausting through stack ST20, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Biscuit line number 3**

- (i) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up fuel, identified as Oven #3, installed in 1993, exhausting through stacks ST16 through ST18, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (j) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #3, installed in 1993, equipped with a cyclone for particulate control, exhausting through stack ST21, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

### **D.2.1 Particulate Emission Limitations [326 IAC 6-3-2]**

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the Hammermill EP-02, the eight (8) storage

silos, the three (3) natural gas-fired dryers (Dryer #1, Dryer #2 and Dryer #3) and the three (3) natural gas-fired ovens (Oven #1, Oven #2 and Oven #3) shall not exceed the allowable particulate emission rate as follows, calculated using their maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
Hammermill (EP-02)	3.0	8.56
Eight (8) storage silos	22.5	33.0
Dryer #1	1.75	5.96
Dryer #2	1.75	5.96
Dryer #3	1.75	5.96
Oven #1	1.75	5.96
Oven #2	1.75	5.96
Oven #2	1.75	5.96

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the one (1) truck receiving operation consisting of a grain elevator, shall not exceed the allowable particulate emission rate as follows, calculated using the maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
one (1) truck receiving operation	40.0	42.5

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

**D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Hammermills (EP-02), the three (3) natural gas-fired ovens (Oven #1, Oven #2 and Oven #3), and the three (3) natural gas-fired dryers (Dryer #3, Dryer #4 and Dryer #5) and their control devices.

### SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

#### Emissions Unit Description:

- (k) One (1) hammermill, identified as EP-03 (Hammermill Bliss 4430), installed in 1996, equipped with a MAC baghouse for particulate control, exhausting through Stack ST02, with a bottleneck production rate of 5.52 tons of dry ingredients per hour (maximum capacity of 8 tons of dry ingredients per hour). This unit will be dedicated to the Wholemeals™ line.
- (m) One (1) storage silo, identified as Bulk Flour Storage, approved for construction in 2008, with a 45 tons storage capacity and a maximum capacity of 8.27 tons of flour per hour.
- (n) One (1) Flour Unloading Filter Receiver consisting of a silo vent fan, fluidized flour blower, transfer flour blower and one (1) Flour Re-feed Filter Receiver with a maximum transfer rate of 8.27 tons per hour of flour, located outside the building, approved for construction in 2008. The receivers are equipped with an explosion vent.
- (o) One (1) Outer Pre-blend Blower and one (1) Outer Pre-blend Receiver, located inside the building, with a bottleneck production rate of 2.15 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (p) One (1) Inner Pre-blend Blower and one (1) Inner Pre-blend Filter Receiver, located inside the building, with a bottleneck production rate of 1.59 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (q) One (1) Rice Flour Re-feed Filter Receiver, located inside the building, with a bottleneck production rate of 1.78 tons per hour of pre-blend material (maximum capacity of 8.27 tons per hour of pre-blend material), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (r) One (1) CTMP Blower and one (1) CTMP Filter Receiver, located inside the building, with a bottleneck production rate of 0.10 ton per hour of pre-blend material (maximum capacity of 0.99 tons per hour of pre-blend material), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

##### D.3.1 Particulate Emission Limitations [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the following units shall not exceed the allowable particulate emission rate as follows, calculated using the maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
Hammermill (EP-03)	8.00	16.51
Storage Silo	8.27	16.88
Rice Flour Re-Feed Receiver	8.27	16.90
CTMP Filter Receiver	0.99	4.07

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**D.3.2 Preventive Maintenance Plan [326 IAC 1-6-3]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Hammermills (EP-03), the Flour Unloading Filter Receiver, the Outer Pre-Blend Filter Receiver, the Rice Flour Re-Feed Filter Receiver and the CTMP filter Receiver and their control devices.

**Compliance Determination Requirements**

**D.3.3 Particulate Control**

Particulate from the Wholemeals™ Line operation shall be controlled by the filter receivers at all times that the Wholemeals™ Line is in operation and the permittee shall operate the filter receivers in accordance with manufacturer's specifications.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**MINOR SOURCE OPERATING PERMIT (MSOP)  
CERTIFICATION**

Source Name: Mars Petcare US, Incorporated  
Source Address: 218 NE Lincoln Avenue, Portland, Indiana 47371  
Mailing Address: P.O. Box 683006, Franklin, TN 47068  
MSOP No.: M075-25000-00010

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)\_\_\_\_\_
- Report (specify)\_\_\_\_\_
- Notification (specify)\_\_\_\_\_
- Affidavit (specify)\_\_\_\_\_
- Other (specify)\_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	Mars Petcare US, Incorporated
<b>Address:</b>	218 NE Lincoln Avenue
<b>City:</b>	Portland, Indiana 47371
<b>Phone #:</b>	(615) 807-4626
<b>MSOP #:</b>	M075-25000-00010

I hereby certify that Mars Petcare US, Incorporated is :

still in operation.

no longer in operation.

I hereby certify that Mars Petcare US, Incorporated is :

in compliance with the requirements of MSOP M075-25000-00010.

not in compliance with the requirements of MSOP M075-25000-00010.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>

### MALFUNCTION REPORT

#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER: (317) 233-6865

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Mars Petcare US, Incorporated  
Source Address: 218 NE Lincoln Avenue, Portland, Indiana 47371  
Mailing Address: P.O. Box 683006, Franklin, TN 47068  
MSOP Permit No.: M075-25000-00010

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

I certify that, based on information and belief formed after reasonable inquiry, the statements information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by an authorized individual as defined by 326 IAC 2-1.1-1(1) is required for this report.

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a  
Minor Source Operating Permit Renewal and New Source Review (NSR)

**Source Background and Description**

<b>Source Name:</b>	Mars Petcare US, Incorporated (formally known as Doane Pet Care Company)
<b>Source Location:</b>	218 NE Lincoln Avenue, Portland, Indiana 47371
<b>County:</b>	Jay
<b>SIC Code:</b>	2047
<b>Permit Renewal No.:</b>	M075-25000-00010
<b>Permit Reviewer:</b>	Marcia Earl

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Mars Petcare US, Incorporated (formerly known as Doan Pet Care Company) relating to the continued operation of a stationary pet food manufacturing source.

**History**

On January 10, 2007, Doane Pet Care Company submitted an application to the OAQ requesting to renew its operating permit. Doane Pet Care Company was issued an MSOP on April 22, 2002.

On July 6, 2007, the Office of Air Quality received a request from Doane Pet Care Company to construct a new pet food line know as Wholemeals™ and, effective July 15, 2007, to change the company name to Mars Petcare US, Incorporated.

The maximum annual biscuit production at this source is restricted by the maximum process throughput rate (bottleneck production rate) of the three (3) biscuit dryers, which limits the sources total annual biscuit production to 45,990 tons per year. The maximum annual production of the Wholemeals™ line is restricted by the process throughput rate (bottleneck production rate) of the two (2) extruders, which limits the sources total annual Wholemeals™ line to 48,355 tons per year. Therefore, potential to emit (PTE) emissions will be calculated by using the bottleneck production rate for those units effected by this bottleneck and the maximum throughput rate of the unit for those units not effected by the bottleneck.

**Permitted Emission Units and Pollution Control Equipment**

- (a) One (1) natural gas-fired boiler, using propane as back-up fuel, identified as Boiler #1, installed in 1974, exhausting through Stack ST22, rated at 8.3 million British thermal units per hour (MMBtu/hr), each.
- (b) One (1) hammermill, identified as EP-02 (Hammermill Bliss 38095), installed in 1992, equipped with a MAC baghouse for particulate control, exhausting through Stack ST01, capacity: 3 tons of dry ingredients per hour.
- (c) One (1) truck receiving operation, consisting of a grain elevator, installed in 1981, capacity: 40 tons of dry ingredients per hour.
- (d) Eight (8) storage silos, with a maximum capacity 22.5 tons of dry ingredients per hour total), equipped with baghouse for particulate control, exhausting through stacks ST24 through ST31.

### **Biscuit line number 1**

- (e) One (1) natural gas-fired oven, equipped with six (6) burners, using propane as back-up fuel, identified as Oven #1, installed in 1989, exhausting through stacks ST07 through ST12, rated at 7.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (f) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #1, installed in 1989, equipped with a cyclone for particulate control, exhausting through stack ST19, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Biscuit line number 2**

- (g) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up fuel, identified as Oven #2, installed in 1991, exhausting through stacks ST13 through ST15, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (h) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #2, installed in 1991, equipped with a cyclone for particulate control, exhausting through stack ST20, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

### **Biscuit line number 3**

- (i) One (1) natural gas-fired oven, equipped with three (3) burners, using propane as back-up fuel, identified as Oven #3, installed in 1993, exhausting through stacks ST16 through ST18, rated at 4.5 MMBtu/hr, capacity: 1.75 tons per hour of pet food.
- (j) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #3, installed in 1993, equipped with a cyclone for particulate control, exhausting through stack ST21, rated at 4.8 MMBtu/hr, capacity: 1.75 tons per hour of pet food.

<b>New Emission Units and Pollution Control Equipment</b>
---

The source consists of the following new emission units:

### **Wholemeals™ Line**

A pet food processing line consisting of:

- (k) One (1) hammermill, identified as EP-03 (Hammermill Bliss 4430), installed in 1996, equipped with a MAC baghouse for particulate control, exhausting through Stack ST02, with a bottleneck production rate of 5.52 tons of dry ingredients per hour (maximum capacity of 8 tons of dry ingredients per hour). This unit will be dedicated to the Wholemeals™ line.
- (l) Two (2) extruders and a spiral cooler, identified as Outer Extruder and Inner Extruder, approved for construction in 2008, with a bottleneck production rate of 5.25 tons per hour total (maximum capacity 2.76 tons each).
- (m) One (1) storage silo, identified as Bulk Flour Storage, approved for construction in 2008, with a 45 tons storage capacity and a maximum capacity of 8.27 tons of flour per hour.
- (n) One (1) Flour Unloading Filter Receiver consisting of a silo vent fan, fluidized flour blower, transfer flour blower and one (1) Flour Re-feed Filter Receiver with a maximum transfer rate of 8.27 tons per hour of flour, located outside the building, approved for construction in 2008. The receivers are equipped with an explosion vent.

- (o) One (1) Outer Pre-blend Blower and one (1) Outer Pre-blend Receiver, located inside the building, with a bottleneck production rate of 2.15 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (p) One (1) Inner Pre-blend Blower and one (1) Inner Pre-blend Filter Receiver, located inside the building, with a bottleneck production rate of 1.59 tons per hour of pre-blend material (maximum capacity of 6.60 tons of pre-blend material per hour), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (q) One (1) Rice Flour Re-feed Filter Receiver, located inside the building, with a bottleneck production rate of 1.78 tons per hour of pre-blend material (maximum capacity of 8.27 tons per hour of pre-blend material), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.
- (r) One (1) CTMP Blower and one (1) CTMP Filter Receiver, located inside the building, with a bottleneck production rate of 0.10 ton per hour of pre-blend material (maximum capacity of 0.99 tons per hour of pre-blend material), approved for construction in 2008. The receiver is equipped with an indoor explosion vent.

#### **Emission Units and Pollution Control Equipment Removed From the Source**

In October 2004, Mars Petcare US, Incorporated stopped the production of drying pet food and removed the following equipment in 2005:

- (a) One (1) natural gas-fired boiler, using propane as back-up fuel, identified as Boiler #2, installed in 1974, exhausting through Stack ST23, rated at 8.3 million British thermal units per hour (MMBtu/hr)

#### **Pet Food Process line number 1**

- (f) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #1, installed in 1989, equipped with a cyclone for particulate control, exhausting through stack ST05, rated at 6.0 million British thermal units per hour, capacity: 10 tons per hour of pet food.
- (g) One (1) extruder, identified as Extruder #1, installed in 1979, equipped with a cyclone for particulate control, exhausting through stack ST03, capacity: 7 tons of pet food per hour.

#### **Pet Food Process line number 2**

- (h) One (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #2, installed in 1991, equipped with a cyclone for particulate control, exhausting through stack ST06, rated at 11.2 million British thermal units per hour, capacity: 10 tons per hour of pet food.
- (i) One (1) extruder identified as Extruder #2, installed in 1979 equipped with a cyclone for particulate control, exhausting through Stack ST04, capacity: 10 tons of pet food per hour.

#### **Existing Approvals**

This source has been operating under the previous Minor Source Operating Permit (MSOP) 075-13850-00010, issued April 22, 2002.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The conditions removed from MSOP 075-13850-00010, issued April 22, 2002 due to the removal of the Pet Food Processing Line Number 1 and Pet Food Processing Line Number 2, are as follows:

**D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]**

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- (c) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable particulate matter (PM) emission rate from the one (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #1, the one (1) natural gas-fired dryer, using propane as back-up fuel, identified as Dryer #2, and the one (1) extruder, identified as extruder #2, shall not exceed 19.2 pounds per hour when operating at a process weight rate of ten (10) tons, or 20,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (e) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable particulate matter (PM) emission rate from the one (1) extruder, identified as Extruder #1, shall not exceed 15.1 pounds per hour when operating at a process rate of seven (7) tons, or 14,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

**Air Pollution Control Justification as an Integral Part of the Process**

The applicant has submitted the following justification such that the majority of the filter receiver equipment is considered as an integral part of the Wholemeals™ line.

The bulk rice flour silo is used to store rice flour; the silo is a completely enclosed structure that is filled by trucks equipped with a pneumatic unloading system. The rice flour is moved by a transfer blower to one of two rice flour loading cells. The cells feed directly to one of two corresponding mixer systems. For the rice flour part of the system considered inherent to the process, the following filter receivers, blowers and fans will be utilized:

Flour Unloading Filter Receiver - The rice flour unloading filter receiver is inherent to the rice flour unloading process in that it captures the rice flour pneumatically unloaded from the truck and delivers the ingredient into the bulk flour storage silo. The primary function of the filter receiver is to separate the rice flour from the air stream used to convey the ingredient to the silo.

Silo Vent Fan - Air from the rice flour unloading operation flows through the rice flour unloading filter receiver and then onto a silo vent fan.

Fluidized Flour Blower - The blower fluidizes rice flour near the bottom of the bulk flour silo. Air added to the bulk flour silo is exhausted through the silo vent fan after first passing through the flour unloading filter receiver.

Transfer Flour Blower - The blower serves to move the rice flour released from the bulk flour silo along a line toward one of two loading cells or rice flour receivers.

#### PRE-BLEND SYSTEM EQUIPMENT - INTEGRAL TO THE PROCESS

Outer Pre-blend Filter Receiver - This receiver will capture outer pre-blend material that is pneumatically transferred (via vacuum suction) from outer pre-blend storage bin to the outer pre-blend filter receiver and pre-blend loading cells. The outer pre-blend filter receiver serves to separate the ingredient from the air stream. Outer pre-blend ingredient exiting the filter receiver at the bottom of the unit drops directly into the corresponding mixer.

Inner Pre-blend Filter Receiver - The inner pre-blend receiver will function in an identical manner described above for the outer pre-blend filter receiver.

Outer Pre-blend Blower - This blower will serve to pull the outer pre-blend ingredient (via vacuum suction) from the applicable pre-blend storage bin through the outer pre-blend filter receiver.

Inner Pre-blend Blower - This blower will function in an identical manner described for the outer pre-blend blower.

IDEM, OAQ has evaluated the information submitted and agrees that the Flour Unloading Filter Receiver, Silo Vent Fan, Fluidized Flour Blower, Transfer Flour Blower, Outer Pre-blend Filter Receiver, Inner Pre-blend Filter Receiver and Outer Pre-blend Blower should be considered an integral part of the Wholemeals™ Line.

#### Enforcement Issue

There are no enforcement actions pending.

#### Emission Calculations

See Appendix A, pages 1 through 17 of this document for detailed emission calculations.

#### County Attainment Status

The source is located in Jay County

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

Unclassifiable or attainment effective April 5, 2005, for PM<sub>2.5</sub>.

- (a) **Ozone Standards**
- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
  - (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
  - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
  - (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Jay County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Jay County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
 Jay County has been classified as attainment or unclassifiable in Indiana for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NOx, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

<b>Pollutant</b>	<b>tons/year</b>
PM	123.28
PM <sub>10</sub>	80.16
PM <sub>2.5</sub>	78.72
SO <sub>2</sub>	0.16
VOC	1.55
CO	14.53
NO <sub>x</sub>	28.72

<b>HAPs</b>	<b>tons/year</b>
Benzene	Negligible
Dichlorobenzene	Negligible

<b>HAPs</b>	<b>tons/year</b>
Formaldehyde	0.013
Hexane	0.311
Toluen	Negligible
Lead	Negligible
Cadmium	Negligible
Chromium	Negligible
Manganese	Negligible
Nickel	Negligible
<b>Total</b>	0.324

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub>/PM<sub>2.5</sub> are each less than one hundred (100) tons per year and the PTE of NO<sub>x</sub> is greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

### **Federal Rule Applicability**

#### New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit for this source.
- (b) 40 CFR 60, Subpart Db (Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units), is not included in this permit. The one (1) boiler, identified Boiler #1 is not subject to 40 CFR Part 60.40b, because the boiler has a heat input capacity less than one hundred (100) MMBtu/hr and was constructed before June 19, 1984.
- (c) 40 CFR 60, Subpart Dc (Standard of Performance for Industrial Commercial-Institutional Steam Generating Units), is not included in this permit. The one (1) boiler, identified as Boiler #1 is not subject to 40 CFR Part 60.40c, because the boiler has a heat input capacity of less than one hundred (100) MMBtu per hour and was constructed before June 9, 1989.
- (d) 40 CFR 60, Subpart DD (Standards of Performance for Grain Elevators), is not included in this permit. Pursuant to the definition of 40 CFR 60.301(c), a grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 2.5 million U.S. bushels, except those located at animal food manufacturers, pet food manufactures, cereal manufacturers, breweries and livestock feed lots. 40 CFR 60.301(f) grain storage elevator is any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extration plant. This source manufactures pet food and therefore, is not subject to the provisions of 40 CFR 60, Subpart DD.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) included in this permit for this source.

### Compliance Assurance Monitoring (CAM)

- (f) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

### **State Rule Applicability - Entire Source**

#### 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

This stationary source is not a major source for PSD purpose because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and is not one of the 28 listed source categories.

#### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

#### 326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5-1(b), this source is not subject to the requirements of 326 IAC 6-5, since the source does not have potential fugitive particulate emissions greater than 25 tons per year.

### State Rule Applicability - Biscuit Line

#### 326 IAC 6-2 (Emission limitations for facilities specified in 326 IAC 6-2-1(c))

Pursuant to 326 IAC 6-2-3, boiler #1, installed in 1974, using natural gas as a primary fuel and propane as backup fuel, with a total heat input capacity of 8.3 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation as given in 326 IAC 6-2-3.

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater the 1,000 MMBtu/hr heat input.

h = Stack height in feet.

$$\text{For boiler \#1 } Pt = 50 \times 0.67 \times 30.0 / 76.5 \times (8.3)^{0.75} \times 1^{0.25} = 0.37\text{lb/MMbtu.}$$

Pursuant to 326 IAC 6-2-3(e), PM emissions shall not exceed 0.6 pound MMBtu heat input.

Based on Appendix A, the worst case potential to emit PM emissions from boiler #1 is 0.08 tons per year. Therefore, boiler #1 is able to comply with this rule.

#### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the Hammermill EP-02, the three (3) natural gas-fired dryers (Dryer #1, Dryer #2 and Dryer #3) and the three (3) natural gas-fired ovens (Oven #1, Oven #2 and Oven #3) shall not exceed the allowable particulate emission rate as follows, calculated using their maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
Hammermill (EP-02)	3.0	8.56
Dryer #1	1.75	5.96
Dryer #2	1.75	5.96
Dryer #3	1.75	5.96
Oven #1	1.75	5.96
Oven #2	1.75	5.96
Oven #3	1.75	5.96

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the one (1) truck receiving operation consisting of a grain elevator and the eight (8) storage silos, shall not exceed the allowable particulate emission rate as follows, calculated using the maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
one (1) truck receiving operation	40.0	42.52
eight (8) storage silos	22.5	33.00

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on Appendix A, each of these units is able to comply with this rule.

### 326 IAC 7-1 (Sulfur Dioxide Emissions Limitations)

The potential to emit sulfur dioxide from each of the one (1) boiler, (Boiler #1), the three (3) natural gas-fired dryers (Dryer #1, Dryer #2 and Dryer #3) and the three (3) natural gas-fired ovens (Oven #1, Oven #2 and Oven #3) is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 7.1 are not applicable.

### Wholemeals™ Line

### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the Hammermills EP-03 and the storage silo shall not exceed the allowable particulate emission rate as follows, calculated using the maximum process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lb/hr)
Hammermill (EP-03)	8.00	16.51
Storage Silo	8.27	16.88

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-1(b)(14), the Flour Unloading Filter Receiver, Outer Pre-Blend Receiver and Inner Pre-Blend Filter Receiver are exempt for the requirements of 326 IAC 6-3-2, since the potential particulate emission are less than 0.551 lbs/hr.

Since each filter receiver is considered an integral part of the Wholemeals™ Line, particulate from the Wholemeals™ Line operation shall be controlled by the filter receivers at all times that the Wholemeals™ Line is in operation and the permittee shall operate the filter receivers in accordance with manufacturer's specifications.

- (c) The requirements of 326 IAC 6-3 are applicable to the Rice Flour Re-feed Receiver and the CTMP Filter Receiver. Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from the Rice Re-feed Receiver and the CTMP Filter Receiver shall not exceed the allowable particulate emission rate as listed in the table below:

Emission Unit	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)
Rice Flour Re-Feed Receiver	8.27	16.90
CTMP Filter Receiver	0.99	4.07

The pound per hour limitations were calculated with the following equation:

Interpolation of the data from the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{Where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour.}$$

The particulate emissions from the Rice Flour Re-Feed Receiver and the CTMP Filter Receiver after controls are 0.073 and 0.009 lbs/hr, respectively. Therefore, the Rice Flour Re-feed Receiver and the CTMP Filter Receiver are able to comply with this rule.

### Recommendation

The staff recommends to the Commissioner that the MSOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 10, 2007. Additional information was received on July 9, 2008 and November 19, 2008.

## **Conclusion**

The operation of this stationary pet food manufacturing source shall be subject to the conditions of the attached MSOP Renewal No. 075-25000-00010.

**Appendix A: Emission Summary**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

**Uncontrolled Emissions**

Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC	CO	NOx	HAPs
Biscuit Line								
Three (3) Natural gas-fired dryers* (combustion)	0.48	0.48	0.48	0.04	0.35	5.30	13.10	0.12
Three (3) Natural gas-fired dryers* (production)	41.39	20.72	20.72	0.00	0.00	0.00	0.00	0.00
One (1) boiler*	0.08	0.28	0.28	0.04	0.40	3.05	5.17	0.07
Three (3) ovens*	0.16	0.56	0.56	0.08	0.80	6.18	10.45	0.14
Hammermill EP-02 (Bliss 38095)	15.77	15.77	15.77	0.00	0.00	0.00	0.00	0.00
Eight (8) Silo's	2.46	0.62	0.11	0.00	0.00	0.00	0.00	0.00
Indoor storage bins (Biscuit Line and Wholemeals™ Line)	1.18	0.30	0.05	0.00	0.00	0.00	0.00	0.00
Truck Receiving	2.98	0.44	0.44	0.00	0.00	0.00	0.00	0.00
Wholemeals™ Line								
Hammermill EP-03 (Bliss 4430)	30.66	30.66	30.66	0.00	0.00	0.00	0.00	0.00
Outer Extruder	0.74	0.41	0.07	0.00	0.00	0.00	0.00	0.00
Inner Extruder	0.74	0.41	0.07	0.00	0.00	0.00	0.00	0.00
Silo**	0.32	0.18	0.18	0.00	0.00	0.00	0.00	0.00
Flour Unloading Filter Receiver**	0.32	0.18	0.18	0.00	0.00	0.00	0.00	0.00
Outer Pre-Blend Receiver**	0.08	0.05	0.03	0.00	0.00	0.00	0.00	0.00
Inner Pre-Blend Filter Receiver**	0.06	0.03	0.03	0.00	0.00	0.00	0.00	0.00
Rice Flour Re-Feed Filter Receiver	24.48	8.59	8.59	0.00	0.00	0.00	0.00	0.00
CTMP Filter Receiver	1.38	0.48	0.48	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>123.28</b>	<b>80.16</b>	<b>78.72</b>	<b>0.16</b>	<b>1.55</b>	<b>14.53</b>	<b>28.72</b>	<b>0.33</b>

**Controlled Emissions**

Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC	CO	NOx	HAPs
Biscuit Line								
Three (3) Natural gas-fired dryers* (combustion)	0.48	0.48	0.48	0.04	0.35	5.30	13.10	0.12
Three (3) Natural gas-fired dryers* (production)	8.27	4.14	4.14	0.00	0.00	0.00	0.00	0.00
Two (2) Boilers*	0.08	0.28	0.28	0.04	0.40	3.05	5.17	0.07
Three (3) ovens*	0.16	0.56	0.56	0.08	0.80	6.18	10.45	0.14
Hammermill EP-02 (Bliss 38095)	0.16	0.16	0.16	0.00	0.00	0.00	0.00	0.00
Eight (8) Silo's	2.45E-02	6.13E-03	8.76E-04	0.00	0.00	0.00	0.00	0.00
Indoor storage bins (Biscuit Line and Wholemeals™ Line)	1.18	0.30	0.05	0.00	0.00	0.00	0.00	0.00
Truck Receiving	2.98	0.44	0.44	0.00	0.00	0.00	0.00	0.00
Wholemeals™ Line								
Hammermill EP-03 (Bliss 4430)	0.31	0.31	0.31	0.00	0.00	0.00	0.00	0.00
Outer Extruder	0.74	0.41	0.07	0.00	0.00	0.00	0.00	0.00
Inner Extruder	0.74	0.41	0.07	0.00	0.00	0.00	0.00	0.00
Silo**	0.32	0.18	0.18	0.00	0.00	0.00	0.00	0.00
Flour Unloading Filter Receiver**	0.32	0.18	0.18	0.00	0.00	0.00	0.00	0.00
Outer Pre-Blend Receiver**	0.08	0.05	0.05	0.00	0.00	0.00	0.00	0.00
Inner Pre-Blend Filter Receiver**	0.06	0.03	0.03	0.00	0.00	0.00	0.00	0.00
Rice Flour Re-Feed Filter Receiver	0.69	0.04	0.04	0.00	0.00	0.00	0.00	0.00
CTMP Filter Receiver	0.004	0.002	0.002	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>16.60</b>	<b>7.98</b>	<b>7.04</b>	<b>0.16</b>	<b>1.55</b>	<b>14.53</b>	<b>28.72</b>	<b>0.33</b>

\* Emission rates are worst case between Natural Gas and Propane.

\*\* The Wholemeals™ line Silo, Flour Unloading Filter Receiver, Outer Pre-blend Receiver and the Inner Pre-blend Filter Receiver are considered integral to the Wholemeals™ line process, so potential to emit (PTE) emissions will be taken after controls.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Three (3) natural gas fired dryers**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 MMCF/yr

14.40

126.14

Unit ID	Capacity
#1	4.8
#2	4.8
#3	4.8
<b>Total</b>	<b>14.40</b>

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	7.6	7.6	7.6	0.6	100.0	5.5	84.0
					**see below		
Potential Emission in tons/yr	0.48	0.48	0.48	0.04	6.31	0.35	5.30

\*PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 7/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Three (3) natural gas fired dryers  
 HAPs Emissions**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.32E-04	7.57E-05	4.73E-03	1.14E-01	2.14E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.15E-05	6.94E-05	8.83E-05	2.40E-05	1.32E-04

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02,  
 and 1-03-006-03 (SUPPLEMENT D 7/98)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations**

**Propane back-up Three (3) dryers**

**(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Eal  
**Date:** July 2007

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
kgals/year

14.40

1378.62

Unit ID	Capacity
Dryer #1	4.8
Dryer #2	4.8
Dryer #3	4.8
<b>Total</b>	<b>14.4</b>

Emission Factor in lb/kgal	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	0.7	0.7	0.7	0.1 (0.10S)	19.0	0.5 **TOC value	3.2
Potential Emission in tons/yr	0.48	0.48	0.48	0.1	13.1	0.34	2.21

\*PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*The VOC value given is TOC.

**Methodology**

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 7/08), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Appendix A: Emissions Calculations  
Biscuit line - Production  
Three (3) natural gas fired dryers**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

Unit ID	Capacity
#1	1.75
#2	1.75
#3	1.75
<b>Total</b>	<b>5.25</b>

Production Capacity tons/hr	Potential Throughput tons/yr
5.25	45,990

Pollutant	Bottleneck Production Rate (tons/hr)	Controlled Emission Factor* (lbs/tons)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency (%)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)
PM	5.25	0.36	1.890	8.27	80.00%	9.45	41.39
PM <sub>10</sub> **	5.25	0.18	0.945	4.14	80.00%	4.73	20.72
PM <sub>2.5</sub> **	5.25	0.18	0.945	4.14	80.00%	4.73	20.72

The maximum biscuit process throughput is 5.25 ton/hr or 45,990 tons per year.

\*PM emission factor is filterable PM only. PM<sub>10</sub>/PM<sub>2.5</sub> emission factors can be estimated by taking 50 percent of the filterable PM emission factor.

**Methodology**

Bottleneck Production Rate \* Controlled Emission Factor (lbs/ton) = Controlled Emission Rate (lbs/hr)  
Controlled Emission Rate (lbs/hr) \* 8,760 hrs/yr /2,000 (lbs/ton) = Controlled Emission Rate (tons/yr)

Controlled Emission Rate (lbs/hr) / (1- Control Efficiency) = Uncontrolled Emission Rate (lbs/hr)  
Uncontrolled Emission Rate (lbs/hr) \* 8,760 hrs/yr /2,000 (lbs/ton) = Uncontrolled Emission Rate (tons/yr)

Emission Factors are from AP 42, Chapter 9, Table 9.9.1-2 (SCC#3-02-008-16) (5/03).



**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Industrial Boiler**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 MMCF/yr

8.37

73.32

	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.07	0.28	0.28	0.02	3.63	0.20	3.05

\*PM emission factor is filterable PM only. PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 7/98)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Two (2) Small Industrial Boilers  
 HAPs Emissions**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	7.70E-05	4.40E-05	2.75E-03	6.60E-02	1.246E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.83E-05	4.03E-05	5.13E-05	1.39E-05	7.699E-05

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02,  
 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 7/98)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations**

**Propane back-up boiler**

**(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
kgals/year

8.30

794.62

Emission Factor in lb/kgal	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	0.2	0.7	0.7	0.1 (0.10S)	13.0	1.0 **TOC value	7.5
Potential Emission in tons/yr	0.08	0.28	0.28	0.04	5.17	0.40	2.98

\*PM emission factor is filterable PM only. PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*The VOC value given is TOC.

**Methodology**

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 7/08), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Three (3) natural gas fired ovens**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010

**Reviewer:** Marcia Earl  
**Date:** July 2007

Unit ID	Capacity
Oven #1	7.80
Oven #2	4.50
Oven #3	4.50
<b>Total</b>	<b>16.80</b>

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

16.80

147.17

	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.14	0.56	0.56	0.04	7.36	0.40	6.18

\*PM emission factor is filterable PM only. PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Three (3) natural gas fired ovens  
 HAPs Emissions**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company

**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371

**Permit Number:** M075-25000-00010

**Reviewer:** Marcia Earl

**Date:** July 2007

Unit ID	Capacity
Oven #1	7.8
Oven #2	4.5
Oven #3	4.5
<b>Total</b>	<b>16.8</b>

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.55E-04	8.83E-05	5.52E-03	1.32E-01	2.50E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.68E-05	8.09E-05	1.03E-04	2.80E-05	1.55E-04

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations**  
**Propane back-up three (3) ovens**  
**(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit Number:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

Unit ID	Capacity
Oven #1	7.8
Oven #2	4.5
Oven #3	4.5
<b>Total</b>	<b>16.8</b>

Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 kgals/year

16.80

1608.39

Emission Factor in lb/kgal	Pollutant						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	0.2	0.7	0.7	0.1 (0.10S)	13.0	1.0 **TOC value	7.5
Potential Emission in tons/yr	0.16	0.56	0.56	0.08	10.45	0.80	6.03

\*PM emission factor is filterable PM only. PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable and condensable combined.

\*\*The VOC value given is TOC.

**Methodology**

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 07/08) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 07/08), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Appendix A: Emission Calculations  
Hammermills**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

**Hammermill EP-03 (Bliss 4430 Baghouse) (Wholemeals™ Line)**

Pollutant	Bottleneck Production Rate (tons/hr)	Controlled Emission Factor* (lbs/tons)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency (%)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)
PM*	5.52	0.012	0.07	0.31	99.0%	7.00	30.66
PM <sub>10</sub> **	5.52	0.012	0.07	0.31	99.0%	7.00	30.66
PM <sub>2.5</sub> **	5.52	0.012	0.07	0.31	99.0%	7.00	30.66

The maximum pre-blend ingredients usage is 45,990 tons per year.

**Hammermill EP-02 (Bliss 38095 Baghouse) (Biscuit Line)**

Pollutant	Maximum Rate (tons/hr)	Controlled Emission Factor* (lbs/tons)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency (%)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)
PM*	3.00	0.012	0.036	0.16	99.00%	3.60	15.77
PM <sub>10</sub> **	3.00	0.012	0.036	0.16	99.00%	3.60	15.77
PM <sub>2.5</sub> **	3.00	0.012	0.036	0.16	99.00%	3.60	15.77

\* PM emission factors taken from AP-42, table 9.9.1-2 (03/03)

\*\* PM<sub>10</sub> and PM<sub>2.5</sub> assumed equal to PM

**Methodology**

Bottleneck Production Rate (tons/yr) \* controlled emission factor (lbs/tons) = Controlled emission rate (lbs/hr)

Controlled emission rate (lbs/hr) \* (8,760 hr/yr) \* (ton/2,000 lbs) = Controlled emission rate (tons/yr)

Controlled emission rate (lbs/hr) / (1- control efficiency) = Uncontrolled emission rate (lbs/hr)

Uncontrolled emission rate (lbs/hr) \* (8,760 hr/yr) \* (ton/2,000 lbs) = Uncontrolled emission rate (tons/yr)

**Appendix A: Emission Calculations**  
**Truck Receiving (Biscuit Line and Wholemeals™ Line)**

**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

<b>Pollutant</b>	<b>Maximum Rate (tons/hr)</b>	<b>Emission Factor (lbs/tons)</b>	<b>Uncontrolled Emission Rate (lbs/hr)</b>	<b>Uncontrolled Emission Rate (ton/yr)</b>
PM	40.00	0.0170	0.68	2.98
PM <sub>10</sub>	40.00	0.0025	0.10	0.44
PM <sub>2.5</sub>	40.00	0.0025	0.10	0.44

Emission Factors are from AP 42, Chapter 9.9, Table 9.9.1-2 03/03. PM<sub>2.5</sub> assumed equal to PM<sub>10</sub>

**Methodolgy**

Maximum Rate (tons/yr) \* Emission Factor (lbs/tons) = Uncontrolled Emission Rate (lbs/hr)

Uncontrolled Emission Rate (lbs/hr) \* (8760 hrs/yr) \* (tons/2,000 lbs) = Uncontrolled Emission Rate (tons/yr)

**Appendix A: Emission Calculations  
Silos**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

**Eight (8) Silos Biscuit Line**

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (ton/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	22.50	0.025	0.56	2.46	99.9%	5.60E-03	2.45E-02
PM <sub>10</sub>	22.50	0.0063	0.14	0.62	99.9%	1.40E-03	6.13E-03
PM <sub>2.5</sub>	22.50	0.0011	0.02	0.11	99.9%	2.00E-04	8.76E-04

Emission Factors are from AP 42, Chapter 9.9, Tables 9.9-1 03/03

**Methodology**

Bottleneck Production Rate (tons/yr) \* Emission Factor (lbs/tons) = Uncontrolled Emission Rate (lbs/hr)  
Uncontrolled emission rate (lbs/hr) \* (8,760 hrs/yr) \* (tons/2,000 lbs) = Uncontrolled emission rate (tons/yr)

Uncontrolled emission rate (lbs/hr) \* (1- control efficiency) = Controlled Emission Rate (lbs/hr)  
Controlled emission rate (lbs/hr) \* (8,760 hrs/yr) \* (ton/2,000 lbs) = Controlled emission rate (tons/yr)

**Appendix A: Emission Calculations  
Indoor Storage Bins (Biscuit Line and Wholemeals™ Line)**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

<b>Pollutant</b>	<b>Bottleneck Production Rate (tons/hr)</b>	<b>Uncontrolled Emission Factor* (lbs/tons)</b>	<b>Uncontrolled Emission Rate (lbs/hr)</b>	<b>Uncontrolled Emission Rate (tons/yr)</b>
PM	10.77	0.025	0.27	1.18
PM <sub>10</sub>	10.77	0.0063	0.07	0.30
PM <sub>2.5</sub>	10.77	0.0011	0.01	0.05

PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission factors are filterable PM/PM<sub>10</sub>/PM<sub>2.5</sub> only.

The bottleneck production rate is based on the maximum annual facility production rate of 5.52 ton/yr for the biscuit line and 5.52 ton/hr for the Wholemeals™ line.

Emission Factors are from AP 42, Table 9.9-1 (SCC 3-02-005-40) (03/03)

**Methodology**

Bottleneck Rate (tons/yr) \* Emission Factor (lbs/tons) = Uncontrolled Emission Rate (lbs/hr)

Uncontrolled emission rate (lbs/hr) \* (8,760 hrs/yr) \* (tons/2,00 lbs) = Uncontrolled emission rate (tons/yr)

**Appendix A: Emission Calculations  
Extruders Wholemeals™ line**

**Company Name:** Mars Petcare US, Incorporated,  
formally known as Doane Pet Care Company  
**Address City IN Zip:** 218 NE Lincoln Avenue, Portland, Indiana 47371  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

**Outer Extruder**

<b>Pollutant</b>	<b>Bottleneck Production Rate (tons/hr)</b>	<b>Emission Factor (lbs/tons)</b>	<b>Uncontrolled Emission Rate (lbs/hr)</b>	<b>Uncontrolled Emission Rate (tons/yr)</b>
PM	2.76	0.0610	0.17	0.74
PM <sub>10</sub>	2.76	0.0340	0.09	0.41
PM <sub>2.5</sub>	2.76	0.0058	0.03	0.07

**Inner Extruder**

<b>Pollutant</b>	<b>Bottleneck Production Rate (tons/hr)</b>	<b>Emission Factor (lbs/tons)</b>	<b>Uncontrolled Emission Rate (lbs/hr)</b>	<b>Uncontrolled Emission Rate (tons/yr)</b>
PM	2.76	0.0610	0.17	0.74
PM <sub>10</sub>	2.76	0.0340	0.09	0.41
PM <sub>2.5</sub>	2.76	0.0058	0.02	0.07

PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission factors taken from AP-42, Table 9.9.1-1 03/03

**Methodology**

Maximum Rate (tons/yr) \* Emission Factor (lbs/tons) = Uncontrolled Emission Rate (lbs/hr)

Uncontrolled emission rate (lbs/hr) \* (8,760 hrs/yr) \* (ton/2,000 lbs) = Uncontrolled emission rate (tons/yr)

**Appendix A: Emission Summary**  
**Company Name:** Mars Petcare US, Incorporated,  
 formally known as Doane Pet Care Company  
**Address City Zip:** 218 NE Lincoln Avenue  
**Permit No:** M075-25000-00010  
**Reviewer:** Marcia Earl  
**Date:** July 2007

**Wholemeals™ line (pneumatic) (integral)**

Emission Units	Bottleneck Production Ingredient Throughput (lbs/hr)	Bottleneck Production Ingredient Throughput (tons/hr)	Controlled Emission Factor PM (lbs/ton)	Controlled Emission Factor PM <sub>10</sub> /PM <sub>2.5</sub> (lbs/ton)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM <sub>10</sub> /PM <sub>2.5</sub> (tons/yr)
Wholemeals™ Silo*	16,540	8.27	0.0089	0.0049	0.32	0.18
Flour Unloading Filter Receiver*	16,540	8.27	0.0089	0.0049	0.32	0.18
Outer Pre-blend Receiver*	4,298	2.15	0.0089	0.0049	0.08	0.05
Inner Pre-blend Filter Receiver*	3,176	1.59	0.0089	0.0049	0.06	0.03

**Wholemeals™ line (pneumatic)**

Emission Units	Bottleneck Production Ingredient Throughput (lbs/hr)	Bottleneck Production Ingredient Throughput (tons/hr)	Uncontrolled Emission Factor PM (lbs/ton)	Uncontrolled Emission Factor PM <sub>10</sub> /PM <sub>2.5</sub> (lbs/ton)	Uncontrolled PTE of PM (tons/yr)	Uncontrolled PTM of PM <sub>10</sub> /PM <sub>2.5</sub> (tons/yr)	Controlled Emission Factor PM (lbs/ton)	Controlled Emission Factor PM <sub>10</sub> /PM <sub>2.5</sub> (lbs/ton)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM <sub>10</sub> /PM <sub>2.5</sub> (tons/yr)
Rice Flour Re-feed Filter Receiver	3,566	1.78	3.14	1.10	24.48	8.59	0.0089	0.0049	0.69	0.04
CTMP Filter Receiver	200	0.10	3.14	1.10	1.38	0.48	0.0089	0.0049	0.004	0.002

**Compliance with 326 IAC 6-3-2**

Emission Units	Maximum Transfer Rate (lbs/hr)	Maximum Transfer Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
Rice Flour Re-Feed Filter Receiver	16,534.80	8.27	16.90
CTMP Filter Receiver	1984.20	0.99	4.10

The Wholemeals™ total annual production is 48,355 tons per year.  
 The maximum Rice Flour Usage is 15,619 tons per year.  
 The maximum Pre-blend (inner and outer) usage is 32,736 tons per year.

**Methodology**

Emission factors for pneumatic conveying of flour assumed equal to emission factors for pneumatic conveying of cement supplement AP-42 table 11.12-2 (pneumatic conveying of cement supplements)

Bottleneck production ingredient throughput (tons/hr) = [Bottleneck production ingredient throughput (lbs/hr)] / [2,000 lb/ton]

\* The Wholemeals™ line Silo, Flour Unloading Filter Receiver, Outer Pre-blend Receiver, and the Inner Pre-blend Filter Receiver are considered integral to the Wholemeals™ line process so potential to emit (PTE) emissions will be taken after controls.

\* Controlled PTE of PM/PM<sub>10</sub>/PM<sub>2.5</sub> (tons/yr) = Bottleneck production ingredient throughput (tons/hr) \* controlled emission factor \* (8,760 hr/yr) \* (ton/2,000 lbs/ton)

For Rice Flour Re-feed Filter Receiver and CTMP Filter Receiver

Uncontrolled PTE of PM/PM<sub>10</sub>/PM<sub>2.5</sub> (tons/yr) = Bottleneck production ingredient throughput (tons/hr) \* uncontrolled emission factor \* (8,760 hr/yr) \* (ton/2,000 lbs/ton)

Controlled PTE of PM/PM<sub>10</sub>/PM<sub>2.5</sub> (tons/yr) = Bottleneck production ingredient throughput (tons/hr) \* controlled emission factor \* (8,760 hr/yr) \* (ton/2,000 lbs/ton)