**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**

TO: Interested Parties / Applicant

DATE: December 29, 2011

RE: WellPet, LLC / 141-30866-00578

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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# New Source Construction and Minor Source Operating Permit OFFICE OF AIR QUALITY

## WellPet LLC
## 1101 W. 11th Street
## Mishawaka, Indiana 46544

(herein known as the Permittee) is hereby authorized to construct and 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 2-5.1, 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.: M141-30866-00578 | |
|---|---|
| Issued by:<br><br>Iryn Calilung, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date:<br>December 29, 2011<br>Expiration Date:<br>December 29, 2016 |

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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)]

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

| | |
|---|---|
| Source Address: | 1101 W. 11th Street, Mishawaka, Indiana 46544 |
| General Source Phone Number: | (217) 620-0193 |
| SIC Code: | 2047 (Dog and Cat Food) |
| County Location: | St. Joseph |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Minor Source Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

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

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

(a) One (1) dry material receiving department, approved for construction in 2011, consisting of the unloading of bulk materials from trucks into one (1) receiving pit, with a maximum truck unloading rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, with particulate emissions controlled by cyclone 2013A and baghouse 2013, in series, exhausting to stack 2013X. Non-bulk materials are also delivered in bags to the receiving department at a bottleneck throughput of 29,755 tons per year.

Note: The bottleneck throughputs of bulk and non-bulk materials are based on the maximum throughput of the extruder processes. System 1 Extruder and System 2 Extruder each have a maximum material throughput capacity of 42,507 tons per year, with a combined capacity of 42,507 + 42,507 = 85,014 tons per year (total of bulk and non-bulk materials).

(b) One (1) conveying system consisting of two (2) enclosed material elevators (of which only one can operate at a time), constructed in 1978 and permitted in 2011, for mechanically conveying dry bulk materials from the receiving department to storage bins at a maximum rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, consisting of the following storage bins:

(1) One (1) grain storage bin, identified as unit 1464, constructed in 1980 and permitted in 2011, with a maximum volume of 339.23 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(2) One (1) grain storage bin, identified as unit 1465, constructed in 1980 and permitted in 2011, with a maximum volume of 488.49 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(3) One (1) grain storage bin, identified as unit 1466, constructed in 1980 and permitted in 2011, with a maximum volume of 170.97 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(4) One (1) grain storage bin, identified as unit 1467, constructed in 1984 and permitted in 2011, with a maximum volume of 23.88 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(5) One (1) grain storage bin, identified as unit 1530, constructed in 2010 and permitted in 2011, with a maximum volume of 92.81 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(6) Three (3) bulk material storage bins, identified as units 1009 through 1011, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(7) Eleven (11) bulk material storage bins, identified as units 1012 through 1022, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(8) Ten (10) bulk material storage bins, identified as units 1174, 1177, 1179, 1181, 1183, 1185, 1187, 1190, 1192, 1194, each constructed in 1984 and permitted in 2011, each with a maximum volume of 30.23 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(9) Four (4) bulk material square storage bins, identified as units 1589 through 1592, each constructed in 2005 and permitted in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere; and

(10) Six (6) bulk material square storage bins, identified as units 1851 through 1856, each approved for construction in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere.

(c) One (1) ribbon mixer, constructed in 1978 and permitted in 2011, with a maximum production capacity of 9.71 tons per hour and a bottleneck throughput of 85,000 tons per year of bulk materials, with materials loaded and unloaded to the mixer using a mechanical conveyance system, exhausting to indoors;

(d) One (1) pet food manufacturing process, identified as System 1, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 1 Hammermill, constructed in 1978 and permitted in 2011, with a maximum throughput of 3.49 tons per hour, approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1812, exhausting to stack 1812X;

(2) One (1) extruder, identified as unit System 1 Extruder, constructed in 1978 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1025, exhausting to stack 1025X; and

Note: This System 1 Extruder is considered a bottleneck to the entire System 1 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 1 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1031AX and emissions from the cooling zone controlled by two (2) cyclones in series, identified as 1031C1 and 1031C2, exhausting to stack 1031X.

(e) One (1) pet food manufacturing process, identified as System 2, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 2 Hammermill, constructed in 1984 and permitted in 2011, with a maximum throughput of 3.49 tons per hour (3.15 tons per hour bulk materials and 0.34 tons per hour non-bulk materials), approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1813, exhausting to stack 1813X;

(2) One (1) extruder, identified as unit System 2 Extruder, constructed in 1984 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1126, exhausting to stack 1126X; and

Note: This System 2 Extruder is considered a bottleneck to the entire System 2 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 2 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1119BX and emissions from the cooling zone controlled by cyclone 1119C, exhausting to stack 1119X.

(f) One (1) pet food final processing, packaging, and shipping operation, constructed in 1978 and permitted in 2011, with a bottleneck throughput of 85,014 tons per year of pet food, consisting of mechanical conveyance equipment, bins, hoppers, and the following:

(1) one (1) enclosed pet food coating process, consisting of two (2) pet food coating systems, using spinning disk application of chicken oil to coat pet food;

(2) one (1) pet food bagging operation, consisting of five (5) pet food bagging lines; and

(3) one (1) bagged pet food truck loading operation.

(g) Combustion of natural gas for generating steam for the System 1 Extruder and System 2 Extruder, with only one (1) natural gas-fired steam boiler operating at a time, consisting of the following:

(1) One (1) natural gas-fired steam boiler, identified as Boiler YS, constructed in 1978 and permitted in 2011, with a maximum heat input capacity of 6.10 MMBtu per hour, exhausting to stack YSX; and

(2) One (1) natural gas-fired steam boiler, identified as Boiler J, constructed in 1987 and permitted in 2011, with a maximum heat input capacity of 20.32 MMBtu per hour, exhausting to stack JX.

## SECTION B GENERAL CONDITIONS

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

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 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

### B.4 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, M141-30866-00578, is issued for a fixed term of five (5) 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.5 Term of Conditions [326 IAC 2-1.1-9.5]

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.6 Enforceability

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.7 Severability

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.8 Property Rights or Exclusive Privilege

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

B.9 Duty to Provide Information

(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. 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.10 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 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.11 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The Permittee shall implement the PMPs.

(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.

(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.12 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M141-30866-00578 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.13 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

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.14 Permit Renewal [326 IAC 2-6.1-7]

(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 an affirmation that the statements in the application are true and complete 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
Permit Administration and Support Section, 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, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.15 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.16 Source Modification Requirement

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

B.17 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]

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.18 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(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
Permit Administration and Support Section, 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 an affirmation that the statements in the application are true and complete 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.19 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than 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.20 Credible Evidence [326 IAC 1-1-6]

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 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 thirty percent (30%) 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.3 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.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

(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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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.

(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.7 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(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.8 Compliance Requirements [326 IAC 2-1.1-11]

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.9 Compliance Monitoring [326 IAC 2-1.1-11]

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.10 Instrument Specifications [326 IAC 2-1.1-11]

(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.11 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps taken.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

(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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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.

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

C.13 Malfunctions Report [326 IAC 1-6-2]

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.14 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.15 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 and Enforcement Branch, 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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) dry material receiving department, approved for construction in 2011, consisting of the unloading of bulk materials from trucks into one (1) receiving pit, with a maximum truck unloading rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, with particulate emissions controlled by cyclone 2013A and baghouse 2013, in series, exhausting to stack 2013X. Non-bulk materials are also delivered in bags to the receiving department at a bottleneck throughput of 29,755 tons per year.

Note: The bottleneck throughputs of bulk and non-bulk materials are based on the maximum throughput of the extruder processes. System 1 Extruder and System 2 Extruder each have a maximum material throughput capacity of 42,507 tons per year, with a combined capacity of 42,507 + 42,507 = 85,014 tons per year (total of bulk and non-bulk materials).

(b) One (1) conveying system consisting of two (2) enclosed material elevators (of which only one can operate at a time), constructed in 1978 and permitted in 2011, for mechanically conveying dry bulk materials from the receiving department to storage bins at a maximum rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, consisting of the following storage bins:

(1) One (1) grain storage bin, identified as unit 1464, constructed in 1980 and permitted in 2011, with a maximum volume of 339.23 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(2) One (1) grain storage bin, identified as unit 1465, constructed in 1980 and permitted in 2011, with a maximum volume of 488.49 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(3) One (1) grain storage bin, identified as unit 1466, constructed in 1980 and permitted in 2011, with a maximum volume of 170.97 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(4) One (1) grain storage bin, identified as unit 1467, constructed in 1984 and permitted in 2011, with a maximum volume of 23.88 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(5) One (1) grain storage bin, identified as unit 1530, constructed in 2010 and permitted in 2011, with a maximum volume of 92.81 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(6) Three (3) bulk material storage bins, identified as units 1009 through 1011, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(7) Eleven (11) bulk material storage bins, identified as units 1012 through 1022, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

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

**Emissions Unit Description (continued):**

(8) Ten (10) bulk material storage bins, identified as units 1174, 1177, 1179, 1181, 1183, 1185, 1187, 1190, 1192, 1194, each constructed in 1984 and permitted in 2011, each with a maximum volume of 30.23 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(9) Four (4) bulk material square storage bins, identified as units 1589 through 1592, each constructed in 2005 and permitted in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere; and

(10) Six (6) bulk material square storage bins, identified as units 1851 through 1856, each approved for construction in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere.

(c) One (1) ribbon mixer, constructed in 1978 and permitted in 2011, with a maximum production capacity of 9.71 tons per hour and a bottleneck throughput of 85,000 tons per year of bulk materials, with materials loaded and unloaded to the mixer using a mechanical conveyance system, exhausting to indoors;

(d) One (1) pet food manufacturing process, identified as System 1, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 1 Hammermill, constructed in 1978 and permitted in 2011, with a maximum throughput of 3.49 tons per hour, approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1812, exhausting to stack 1812X;

(2) One (1) extruder, identified as unit System 1 Extruder, constructed in 1978 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1025, exhausting to stack 1025X; and

Note: This System 1 Extruder is considered a bottleneck to the entire System 1 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 1 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1031AX and emissions from the cooling zone controlled by two (2) cyclones in series, identified as 1031C1 and 1031C2, exhausting to stack 1031X.

(e) One (1) pet food manufacturing process, identified as System 2, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 2 Hammermill, constructed in 1984 and permitted in 2011, with a maximum throughput of 3.49 tons per hour (3.15 tons per hour bulk materials and 0.34 tons per hour non-bulk materials), approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1813, exhausting to stack 1813X;

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

**Emissions Unit Description (continued):**

(2) One (1) extruder, identified as unit System 2 Extruder, constructed in 1984 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1126, exhausting to stack 1126X; and

Note: This System 2 Extruder is considered a bottleneck to the entire System 2 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 2 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1119BX and emissions from the cooling zone controlled by cyclone 1119C, exhausting to stack 1119X.

(f) One (1) pet food final processing, packaging, and shipping operation, constructed in 1978 and permitted in 2011, with a bottleneck throughput of 85,014 tons per year of pet food, consisting of mechanical conveyance equipment, bins, hoppers, and the following:

(1) one (1) enclosed pet food coating process, consisting of two (2) pet food coating systems, using spinning disk application of chicken oil to coat pet food;

(2) one (1) pet food bagging operation, consisting of five (5) pet food bagging lines; and

(3) one (1) bagged pet food truck loading operation.

(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 Matter Limitations Except Lake County [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from the facilities listed below shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf).

| Emission Unit | Control Description | Particulate Emission Limit (gr/dscf) |
|---|---|---|
| Receiving Pit | Cyclone 2013A / Baghouse 2013 | 0.03 |
| Enclosed Material Elevator and Conveying System | Enclosed | 0.03 |
| Bin 1464 | None | 0.03 |
| Bin 1465 | None | 0.03 |
| Bin 1466 | None | 0.03 |
| Bin 1467 | None | 0.03 |
| Bin 1530 | None | 0.03 |
| Bin 1190 | None | 0.03 |
| Bin 1185 | None | 0.03 |
| Bin 1187 | None | 0.03 |
| Bin 1183 | None | 0.03 |
| Bin 1181 | None | 0.03 |
| Bin 1177 | None | 0.03 |

| Emission Unit | Control Description | Particulate Emission Limit (gr/dscf) |
|---|---|---|
| Bin 1179 | None | 0.03 |
| Bin 1174 | None | 0.03 |
| Bin 1192 | None | 0.03 |
| Bin 1194 | None | 0.03 |
| Bin 1017 | None | 0.03 |
| Bin 1018 | None | 0.03 |
| Bin 1019 | None | 0.03 |
| Bin 1020 | None | 0.03 |
| Bin 1021 | None | 0.03 |
| Bin 1022 | None | 0.03 |
| Bin 1012 | None | 0.03 |
| Bin 1015 | None | 0.03 |
| Bin 1016 | None | 0.03 |
| Bin 1013 | None | 0.03 |
| Bin 1014 | None | 0.03 |
| Bin 1011 | None | 0.03 |
| Bin 1010 | None | 0.03 |
| Bin 1009 | None | 0.03 |
| Bin 1589 | None | 0.03 |
| Bin 1590 | None | 0.03 |
| Bin 1591 | None | 0.03 |
| Bin 1592 | None | 0.03 |
| Bin 1851 | None | 0.03 |
| Bin 1852 | None | 0.03 |
| Bin 1853 | None | 0.03 |
| Bin 1854 | None | 0.03 |
| Bin 1855 | None | 0.03 |
| Bin 1856 | None | 0.03 |
| Ribbon Mixer | None | 0.03 |
| System 1 Hammermill | Baghouse 1812 | 0.03 |
| System 1 Extruder | Cyclone 1025 | 0.03 |
| System 1 Dryer (heating zone) | None | 0.03 |
| System 1 Dryer (cooling zone) | Cyclones 1031C1 and 1031C2 | 0.03 |
| System 2 Hammermill | Baghouse 1813 | 0.03 |
| System 2 Extruder | Cyclone 1126 | 0.03 |
| System 2 Dryer (heating zone) | None | 0.03 |
| System 2 Dryer (cooling zone) | Cyclone 1119C | 0.03 |
| Bagging Operation | None | 0.03 |

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable, the Permittee shall comply with the following:

(a) The total output of dry pet food from System 1 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) VOC emissions from System 1 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

(c) The total output of dry pet food from System 2 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) VOC emissions from System 2 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

Compliance with these limits shall limit the VOC emissions from each of the dryers (System 1 Dryer and System 2 Dryer) to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements**

D.1.4 Particulate Control

(a) In order to comply with Condition D.1.1, each of the control devices associated with the emission units in Condition D.1.1 shall be in operation and control particulate emissions from the emission unit at all times the emission units are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.3 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5(a)(2)]

Pursuant to Non-rule Policy Document titled "Approval and Validation of Alternate Emission Factors" (Air-014-NPD) and in order to verify compliance with 326 IAC 2-6.1-5 and Condition D.1.2(b), the Permittee shall perform a one-time performance test on one (1) of the dryers (System 1 Dryer or System 2 Dryer) to verify the VOC emission factor when drying pet food not later than 180 days after issuance of this permit, No. M141-30866-00578, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.1.4 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.2(a) and D.1.2(c), the Permittee shall maintain records of the dry pet food output from each of the dryers each month and each compliance period.

(b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

### D.1.5 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.2(a) and D.1.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(g) Combustion of natural gas for generating steam for the System 1 Extruder and System 2 Extruder, with only one (1) natural gas-fired steam boiler operating at a time, consisting of the following:

(1) One (1) natural gas-fired steam boiler, identified as Boiler YS, constructed in 1978 and permitted in 2011, with a maximum heat input capacity of 6.10 MMBtu per hour, exhausting to stack YSX; and

(2) One (1) natural gas-fired steam boiler, identified as Boiler J, constructed in 1987 and permitted in 2011, with a maximum heat input capacity of 20.32 MMBtu per hour, exhausting to stack JX.

(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 Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2]

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

(b) Pursuant to 326 IAC 6-2-4, the particulate matter emissions from Boiler J shall not exceed 0.452 pounds of particulate matter per million British thermal units heat input.

This limitation is based on the following equation:

$Pt = 1.09/Q^{0.26}$ where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. (Q = 6.10 + 23.32 = 29.42 MMBtu/hr)

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE AND ENFORCEMENT BRANCH

**FESOP Quarterly Report**

Source Name: WellPet LLC
Source Address: 1101 W. 11th Street, Mishawaka, Indiana 46544
MSOP Permit No.: M141-30866-00578
Facility: System 1 Dryer
Parameter: Dry Pet Food Output
Limit: The total output of dry pet food from System 1 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER:_____ YEAR:_____

| Month | Dry Pet Food Output (tons) | Dry Pet Food Output (tons) | Dry Pet Food Output (tons) |
|---|---|---|---|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone:_____

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE AND ENFORCEMENT BRANCH

**FESOP Quarterly Report**

Source Name: WellPet LLC
Source Address: 1101 W. 11th Street, Mishawaka, Indiana 46544
MSOP Permit No.: M141-30866-00578
Facility: System 2 Dryer
Parameter: Dry Pet Food Output
Limit: The total output of dry pet food from System 2 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER:_____ YEAR:_____

| Month | Dry Pet Food Output (tons) | Dry Pet Food Output (tons) | Dry Pet Food Output (tons) |
|---|---|---|---|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone:_____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**OFFICE OF AIR QUALITY**
**COMPLIANCE AND ENFORCEMENT 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).

| | |
|---|---|
| **Company Name:** | WellPet LLC |
| **Address:** | 1101 W. 11th Street |
| **City:** | Mishawaka, Indiana 46544 |
| **Phone #:** | (217) 620-0193 |
| **MSOP #:** | M141-30866-00578 |

I hereby certify that WellPet LLC is:

□ still in operation.
□ no longer in operation.

I hereby certify that WellPet LLC is:

□ in compliance with the requirements of MSOP M141-30866-00578.
□ not in compliance with the requirements of MSOP M141-30866-00578.

| |
|---|
| **Authorized Individual (typed):** |
| **Title:** |
| **Signature:** |
| **Date:** |

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.

| |
|---|
| **Noncompliance:** |
| |
| |
| |
| |

## MALFUNCTION REPORT

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
## OFFICE OF AIR QUALITY
## COMPLIANCE AND ENFORCEMENT BRANCH
**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:

_____
_____

Mail to: Permit Administration and Support Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

WellPet LLC
1101 W. 11th Street
Mishawaka, Indiana 46544

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that WellPet LLC 1101 W. 11th Street, Mishawaka, Indiana 46544, completed construction of the pet food manufacturing plant on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on September 1, 2011, and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M141-30866-00578, Plant ID No. 141-00578 issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature_____
Date_____

STATE OF INDIANA)
)SS

COUNTY OF _____ )

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana

on this _____ day of _____, 20 _____. My Commission expires: _____.

Signature_____
Name_____ (typed or printed)

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit (MSOP)

### Source Description and Location

| | |
|---|---|
| **Source Name:** | **WellPet LLC** |
| **Source Location:** | **1101 W. 11th Street, Mishawaka, IN 46544** |
| **County:** | **St. Joseph** |
| **SIC Code:** | **2047 (Dog and Cat Food)** |
| **Operation Permit No.:** | **M141-30866-00578** |
| **Permit Reviewer:** | **Nathan C. Bell** |

On September 1, 2011, the Office of Air Quality (OAQ) received an application from WellPet LLC related to the construction and operation of new equipment and modification of operations at an existing stationary pet food manufacturing plant.

### Existing Approvals

There have been no previous approvals issued to this source.

### County Attainment Status

The source is located in St. Joseph County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O3 | Attainment effective July 19, 2007, for the 8-hour ozone standard.[1] |
| $PM_{10}$ | Unclassifiable effective November 15, 1990. |
| $NO_2$ | Cannot be classified or better than national standards. |
| Pb | Not designated. |

[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including St. Joseph County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards
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. St. Joseph 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) $PM_{2.5}$
St. Joseph County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$ and $SO_2$

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
St. Joseph County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

## Fugitive Emissions

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

## Background and Description of New Source Construction

The Office of Air Quality (OAQ) has reviewed an application, submitted by WellPet LLC on September 1, 2011, relating to the construction and operation of new equipment and modification of operations at an existing stationary pet food manufacturing plant. The source will be constructing six (6) new storage units and will be modifying the dry ingredient conveyance system from a gravity-fed system to a pneumatic conveyance system. As a result of the new and modified equipment, production capacity of the plant will increase from a maximum of 40,000 tons of pet food per year to a maximum of 85,000 tons of pet food per year.

The following is a list of the new, modified, and unpermitted emission units and pollution control devices:

(a) One (1) dry material receiving department, approved for construction in 2011, consisting of the unloading of bulk materials from trucks into one (1) receiving pit, with a maximum truck unloading rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, with particulate emissions controlled by cyclone 2013A and baghouse 2013, in series, exhausting to stack 2013X. Non-bulk materials are also delivered in bags to the receiving department at a bottleneck throughput of 29,755 tons per year.

Note: The bottleneck throughputs of bulk and non-bulk materials are based on the maximum throughput of the extruder processes. System 1 Extruder and System 2 Extruder each have a maximum material throughput capacity of 42,507 tons per year, with a combined capacity of 42,507 + 42,507 = 85,014 tons per year (total of bulk and non-bulk materials).

(b) One (1) conveying system consisting of two (2) enclosed material elevators (of which only one can operate at a time), constructed in 1978 and permitted in 2011, for mechanically conveying dry bulk materials from the receiving department to storage bins at a maximum rate of 57.59 tons per hour and a bottleneck throughput of 55,259 tons per year of bulk materials, consisting of the following storage bins:

(1) One (1) grain storage bin, identified as unit 1464, constructed in 1980 and permitted in 2011, with a maximum volume of 339.23 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(2) One (1) grain storage bin, identified as unit 1465, constructed in 1980 and permitted in 2011, with a maximum volume of 488.49 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(3) One (1) grain storage bin, identified as unit 1466, constructed in 1980 and permitted in 2011, with a maximum volume of 170.97 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(4) One (1) grain storage bin, identified as unit 1467, constructed in 1984 and permitted in 2011, with a maximum volume of 23.88 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(5) One (1) grain storage bin, identified as unit 1530, constructed in 2010 and permitted in 2011, with a maximum volume of 92.81 tons and a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(6) Three (3) bulk material storage bins, identified as units 1009 through 1011, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(7) Eleven (11) bulk material storage bins, identified as units 1012 through 1022, each constructed in 1978 and permitted in 2011, each with a maximum volume of 12.09 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(8) Ten (10) bulk material storage bins, identified as units 1174, 1177, 1179, 1181, 1183, 1185, 1187, 1190, 1192, 1194, each constructed in 1984 and permitted in 2011, each with a maximum volume of 30.23 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere;

(9) Four (4) bulk material square storage bins, identified as units 1589 through 1592, each constructed in 2005 and permitted in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere; and

(10) Six (6) bulk material square storage bins, identified as units 1851 through 1856, each approved for construction in 2011, each with a maximum volume of 21.83 tons, and each with a maximum filling rate of 57.59 tons per hour, exhausting to the atmosphere.

(c) One (1) ribbon mixer, constructed in 1978 and permitted in 2011, with a maximum production capacity of 9.71 tons per hour and a bottleneck throughput of 85,000 tons per year of bulk materials, with materials loaded and unloaded to the mixer using a mechanical conveyance system, exhausting to indoors;

(d) One (1) pet food manufacturing process, identified as System 1, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 1 Hammermill, constructed in 1978 and permitted in 2011, with a maximum throughput of 3.49 tons per hour, approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1812, exhausting to stack 1812X;

(2) One (1) extruder, identified as unit System 1 Extruder, constructed in 1978 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1025, exhausting to stack 1025X; and

Note: This System 1 Extruder is considered a bottleneck to the entire System 1 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 1 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1031AX and emissions from the cooling zone controlled by two (2) cyclones in series, identified as 1031C1 and 1031C2, exhausting to stack 1031X.

(e) One (1) pet food manufacturing process, identified as System 2, consisting of mechanical conveyance equipment, bins, hoppers, and the following units:

(1) One (1) hammermill, identified as unit System 2 Hammermill, constructed in 1984 and permitted in 2011, with a maximum throughput of 3.49 tons per hour (3.15 tons per hour bulk materials and 0.34 tons per hour non-bulk materials), approved for modification in 2011 to add a pneumatic draw system equipped with an integral air-product separation baghouse 1813, exhausting to stack 1813X;

(2) One (1) extruder, identified as unit System 2 Extruder, constructed in 1984 and permitted in 2011, with a maximum throughput of 4.85 tons per hour of pet food, with the pet food pneumatically conveyed through an integral air-product separation cyclone 1126, exhausting to stack 1126X; and

Note: This System 2 Extruder is considered a bottleneck to the entire System 2 manufacturing process.

(3) one (1) natural gas-fired dryer, identified as System 2 Dryer, constructed in 2001 and permitted in 2011, with a maximum heat input capacity of 8.40 MMBtu per hour, with a maximum throughput of 4.85 tons per hour of pet food, with emissions from the heating zone exhausting to stack 1119BX and emissions from the cooling zone controlled by cyclone 1119C, exhausting to stack 1119X.

(f) One (1) pet food final processing, packaging, and shipping operation, constructed in 1978 and permitted in 2011, with a bottleneck throughput of 85,014 tons per year of pet food, consisting of mechanical conveyance equipment, bins, hoppers, and the following:

(1) one (1) enclosed pet food coating process, consisting of two (2) pet food coating systems, using spinning disk application of chicken oil to coat pet food;

(2) one (1) pet food bagging operation, consisting of five (5) pet food bagging lines; and

(3) one (1) bagged pet food truck loading operation.

(g) Combustion of natural gas for generating steam for the System 1 Extruder and System 2 Extruder, with only one (1) natural gas-fired steam boiler operating at a time, consisting of the following:

(1) One (1) natural gas-fired steam boiler, identified as Boiler YS, constructed in 1978 and permitted in 2011, with a maximum heat input capacity of 6.10 MMBtu per hour, exhausting to stack YSX; and

(2) One (1) natural gas-fired steam boiler, identified as Boiler J, constructed in 1987 and permitted in 2011, with a maximum heat input capacity of 20.32 MMBtu per hour, exhausting to stack JX.

## "Integral Part of the Process" Determination

WellPet LLC has submitted the following information to justify why baghouses 1812 and1813 and cyclones 1025 and 1126 should be considered an integral part of the pet food manufacturing process:

(a) For both the System 1 Hammermill and System 2 Hammermill, pneumatic draw fans create a vacuum to pull dry ingredients through each of the hammermills and into a hammermill outlet collection hopper. Baghouses 1812 and 1813 are each used primarily as an air-product separation device to minimize the loss of the milled ingredients (i.e., to keep the milled ingredients in the collection hopper). The baghouses serve a secondary function as a pollution control device to minimize fugitive dust in the plant.

(a) For both the System 1 Extruder and System 2 Extruder, the pet food mixture is extruded and cut into pieces that are then pneumatically conveyed by vacuum through an integral air-product separation cyclone, with the pet food pieces falling down through the cyclone (i.e., collected by the cylone) and the vacuum air exhausting through the top of the cyclone. Cyclones 1025 and 1126 are each used primarily as an air-product separation device to collect the pet food pieces so that they can be conveyed to the dryers.

IDEM, OAQ has evaluated the information submitted and agrees that the baghouses 1812 and1813 and cyclones 1025 and 1126 should be considered an integral part of the pet food manufacturing process. This determination is based on the fact that baghouses 1812 and1813 and cyclones 1025 and 1126 are used as air-product separation devices. Therefore, the permitting level will be determined using the potential to emit after baghouses 1812 and1813 and cyclones 1025 and 1126. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6.5 (Particulate Matter Limitations Except Lake County), potential particulate matter emissions from the hammermills and extruders were calculated before consideration of the controls. Operating conditions in the proposed permit will specify that baghouses 1812 and1813 and cyclones 1025 and 1126 shall operate at all times when the pet food manufacturing process is in operation.

## Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction and operating permit rules.

## Process Bottleneck

Based on information provided by the source, the extruding process (System 1 Extruder and System 2 Extruder) is the bottleneck in the pet food production process, because all of the bulk and non-bulk materials used in the pet food production process must be processed through the extruders to make pet food. System 1 Extruder and System 2 Extruder each have a maximum capacity of approximately 4.85 tons per hour of pet food. Assuming the extruders are operated 8,760 hours per year, the maximum material throughput capacity for both the extruders combined is 85,014 tons per year.

The potential to emit for the dry material receiving, conveying, storage, and mixing operations and the pet food manufacturing, processing, packaging, and shipping operations was calculated based on the bottleneck throughput of 85,014 tons per year for the extruders. However, for combustion of natural gas in the dryers (System 1 Dryer and System 2 Dryer) and the boilers (Boiler YS and Boiler J), the potential to emit was calculated assuming that each of the units was combusting natural gas at the respective maximum heat input capacity for 8,760 hours per year.

## Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

## Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|---|---|
| PM | 35.1 |
| PM10[(1)] | 35.8 |
| PM2.5 | 30.6 |
| $SO_2$ | 0.10 |
| $NO_x$ | 15.9 |
| VOC | 10.6 |
| CO | 13.4 |
| GHGs as $CO_2e$ | 19244 |
| Total HAPs | 0.30 |
| Worst Single HAP | 0.29 (hexane) |

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM10 and PM2.5 are each less than one hundred (100) tons per year, but 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) 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) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of $CO_2$ equivalent emissions ($CO_2e$) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

## PTE of the Entire Source After Issuance of the MSOP

The table below summarizes the potential to emit of the entire source after issuance of this MSOP, reflecting all limits, of the emission units.

| Process/ Emission Unit | Potential To Emit of the Entire Source After Issuance of MSOP (tons/year) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PM | PM10* | PM2.5 | $SO_2$ | NOx | VOC | CO | GHGs as $CO_2e$** | Total HAPs | Worst Single HAP |
| **Non-Fugitive Emissions*** ** | | | | | | | | | | |
| Receiving Pit - Straight Truck | 5.0 | 1.6 | 0.28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Enclosed Material Elevator and Conveying System | 1.7 | 0.94 | 0.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Storage Bins | 0.7 | 0.17 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ribbon Mixer | 1.1 | 0.27 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 1 Hammermill | 0.10 | 0.05 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 1 Extruder | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 1 Dryer (heating zone)**** | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 24.87 | 3.0 | 4355 | 0.07 | 0.06 (hexane) |
| System 1 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 2 Hammermill | 0.10 | 0.05 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 2 Extruder | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| System 2 Dryer (heating zone)**** | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 24.87 | 3.0 | 4355 | 0.07 | 0.06 (hexane) |
| System 2 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bagging | 2.6 | 1.4 | 0.25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Boiler YS and Boiler J (worst case)***** | 0.17 | 0.66 | 0.66 | 0.05 | 8.7 | 0.48 | 7.3 | 10534 | 0.16 | 0.16 (hexane) |
| **Total PTE (Non-Fugitive)*** ** | **22.7** | **30.3** | **25.4** | **0.10** | **15.9** | **50.2** | **13.4** | **19244** | **0.30** | **0.29 (hexane)** |
| Title V Major Source Thresholds** | NA | 100 | 100 | 100 | 100 | 100 | 100 | 100,000 | 25 | 10 |
| PSD Major Source Thresholds** | 250 | 250 | NA | 250 | 250 | 250 | 250 | 100,000 | NA | NA |
| **Fugitive Emissions*** ** | | | | | | | | | | |
| Paved Roads*** | 2.2 | 0.45 | 0.11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total PTE (Fugitive)*** ** | **2.2** | **0.45** | **0.11** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Total PTE of Entire Source (Non-Fugitive and Fugitive)*** ** | **25.0** | **30.7** | **25.5** | **0.10** | **15.9** | **50.2** | **13.4** | **19244** | **0.30** | **0.29 (hexane)** |

negl. = negligible

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

**The 100,000 $CO_2e$ threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

***The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability. However, since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD and Part 70 Permit applicability.

****The Permittee has requested a VOC limit of less than 25 tons per year for each of the dryers.

*****Only one (1) natural gas-fired steam boiler can operate at a time. Therefore, the potential to emit is based on the worst case steam boiler.

In order to verify that each of the dryers (System 1 Dryer or System 2 Dryer) has unlimited VOC potential emissions of less than twenty-five (25) tons per year, the Permittee shall perform a one-time performance test on one (1) of the dryers (System 1 Dryer or System 2 Dryer) to verify the VOC emission factor when drying pet food.

In order to render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable, the Permittee shall comply with the following:

(a) The total output of dry pet food from System 1 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) VOC emissions from System 1 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

(c) The total output of dry pet food from System 2 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) VOC emissions from System 2 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

Compliance with these limits shall limit the VOC emissions from each of the dryers (System 1 Dryer and System 2 Dryer) to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

(a) The requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60, Subpart DD (60.300 through 60.304) (326 IAC 12), are not included in the permit for this source, since this source does not contain any grain terminal elevators or grain storage elevators as defined by 40 CFR 60.301. Pursuant to the definitions under 40 CFR 60.301, "grain storage elevator" means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m3 (ca. 1 million bushels). Pursuant to the definitions under 40 CFR 60.301, "grain terminal elevator" means any grain elevator which has a permanent storage capacity of more than 88,100 m3 (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots. This source is considered a pet food manufacturer, which does not meet the definition of a "grain terminal elevator" or "grain storage elevator".

(c) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, are not included in this exemption, because this source is not a major source of HAPs as defined in 40 CFR 63.2.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, are not included in the permit for each of the natural gas-fired steam boilers, because each is a gas-

fired boiler, as defined by 40 CFR 63.11237, which is specifically exempted from this rule under 40 CFR 63.11195(e).

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, 40 CFR 63, Subpart DDDDDDD are not included in the permit, since this source is not considered a prepared feeds manufacturing facility as defined by 40 CFR 63.11627. Pursuant to the definition of "animal feed" under 40 CFR 63.11627, feed products produced for dogs and cats are not considered animal feed for the purposes of 40 CFR 63, Subpart DDDDDDD.

(g) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

(h) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited 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 Determination

The following state rules are applicable to the source:

(a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than 100,000 tons of $CO_2e$ per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Note: The PM PTE before control, even for the controls considered as integral, is less than 250 tons per year.

(c) 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.

(d) 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.

(e) 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:

(1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) 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.

(f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
The source is subject to the requirements of 326 IAC 6-4, because the paved roads at this source have the potential to emit fugitive particulate emissions. 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.

(g) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

(h) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(i) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Dry Material Receiving, Conveying, Storage, and Mixing Operations

(j) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a) and 326 IAC 6.5-1-2(a), this source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County), because this source is located in St. Joseph County, is not specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10, and has potential particulate matter emissions greater than 10 tons per year.

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from the facilities listed below shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf).

| Emission Unit | Control Description | Particulate Emission Limit (gr/dscf) |
|---|---|---|
| Receiving Pit | Cyclone 2013A / Baghouse 2013 | 0.03 |
| Enclosed Material Elevator and Conveying System | Enclosed | 0.03 |
| Bin 1464 | None | 0.03 |
| Bin 1465 | None | 0.03 |
| Bin 1466 | None | 0.03 |
| Bin 1467 | None | 0.03 |
| Bin 1530 | None | 0.03 |
| Bin 1190 | None | 0.03 |
| Bin 1185 | None | 0.03 |
| Bin 1187 | None | 0.03 |
| Bin 1183 | None | 0.03 |
| Bin 1181 | None | 0.03 |
| Bin 1177 | None | 0.03 |
| Bin 1179 | None | 0.03 |
| Bin 1174 | None | 0.03 |
| Bin 1192 | None | 0.03 |

| Emission Unit | Control Description | Particulate Emission Limit (gr/dscf) |
|---|---|---|
| Bin 1194 | None | 0.03 |
| Bin 1017 | None | 0.03 |
| Bin 1018 | None | 0.03 |
| Bin 1019 | None | 0.03 |
| Bin 1020 | None | 0.03 |
| Bin 1021 | None | 0.03 |
| Bin 1022 | None | 0.03 |
| Bin 1012 | None | 0.03 |
| Bin 1015 | None | 0.03 |
| Bin 1016 | None | 0.03 |
| Bin 1013 | None | 0.03 |
| Bin 1014 | None | 0.03 |
| Bin 1011 | None | 0.03 |
| Bin 1010 | None | 0.03 |
| Bin 1009 | None | 0.03 |
| Bin 1589 | None | 0.03 |
| Bin 1590 | None | 0.03 |
| Bin 1591 | None | 0.03 |
| Bin 1592 | None | 0.03 |
| Bin 1851 | None | 0.03 |
| Bin 1852 | None | 0.03 |
| Bin 1853 | None | 0.03 |
| Bin 1854 | None | 0.03 |
| Bin 1855 | None | 0.03 |
| Bin 1856 | None | 0.03 |
| Ribbon Mixer | None | 0.03 |

In order to comply with the above particulate emission limit, Cyclone 2013A and Baghouse 2013 shall be in operation and control particulate emissions from the Receiving Pit at all times the Receiving Pit is in operation.

(k) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(c)(3), this rule does not apply if a particulate limitation established in 326 IAC 6.5 is more stringent than the particulate limitation established in 326 IAC 6-3-2. Since the particulate limitations established by 326 IAC 6.5-1-2 for each facility are more stringent than the particulate limitations that would be established by 326 IAC 6-3-2, the source is not subject to the requirements of 326 IAC 6-3-2.

Pet Food Manufacturing, Processing, Packaging, and Shipping Operations

(l) 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating)
Each of the natural gas-fired dryers is not subject to the requirements of 326 IAC 6-2, because they each are not an indirect heating unit.

(m) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a) and 326 IAC 6.5-1-2(a), this source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County), because this source is located in St. Joseph County, is not specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10, and has potential particulate matter emissions greater than 10 tons per year.

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County), particulate matter (PM) emissions from the facilities listed below shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf).

| Emission Unit | Control Description | Particulate Emission Limit (gr/dscf) |
|---|---|---|
| System 1 Hammermill | Baghouse 1812 | 0.03 |
| System 1 Extruder | Cyclone 1025 | 0.03 |
| System 1 Dryer (heating zone) | None | 0.03 |
| System 1 Dryer (cooling zone) | Cyclones 1031C1 and 1031C2 | 0.03 |
| System 2 Hammermill | Baghouse 1813 | 0.03 |
| System 2 Extruder | Cyclone 1126 | 0.03 |
| System 2 Dryer (heating zone) | None | 0.03 |
| System 2 Dryer (cooling zone) | Cyclone 1119C | 0.03 |
| Bagging Operation | None | 0.03 |

In order to comply with the particulate emission limits listed in the above table, each of the control devices associated with the emission units listed in the above table shall be in operation and control particulate emissions from the emission unit at all times the emission units are in operation.

(n) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(c)(3), this rule does not apply if a particulate limitation established in 326 IAC 6.5 is more stringent than the particulate limitation established in 326 IAC 6-3-2. Since the particulate limitations established by 326 IAC 6.5-1-2 for each facility are more stringent than the particulate limitations that would be established by 326 IAC 6-3-2, the source is not subject to the requirements of 326 IAC 6-3-2.

(o) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
Pursuant to 326 IAC 7-1.1-1, each of the natural gas-fired dryers at this source is not subject to the requirements of 326 IAC 7-1.1, since each has unlimited sulfur dioxide ($SO_2$) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

(p) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
To estimate the potential to emit VOC from the drying of pet food, a VOC emission factor of 1.19 pounds per ton of dry pet food was utilized. This emission factor is based upon a VOC emission factor used in Part 70 Operating Permit No. T009-30510-00025 for Naturally Recycled Proteins of Indiana, LLC, for drying of a meat product. Based on a VOC emission factor of 1.19 pounds per ton of dry pet food, each of the dryers (System 1 Dryer or System 2 Dryer) has unlimited VOC potential emissions of less than twenty-five (25) tons per year.

In order to verify that each of the dryers (System 1 Dryer or System 2 Dryer) has unlimited VOC potential emissions of less than twenty-five (25) tons per year, the Permittee shall perform a one-time performance test on one (1) of the dryers (System 1 Dryer or System 2 Dryer) to verify the VOC emission factor when drying pet food.

In order to render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable, the Permittee shall comply with the following:

(a) The total output of dry pet food from System 1 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) VOC emissions from System 1 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

(c) The total output of dry pet food from System 2 Dryer shall be less than 42,507 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) VOC emissions from System 2 Dryer (including heating zone and cooling zone) shall not exceed 1.17 pounds per ton of dry pet food output.

Compliance with these limits shall limit the VOC emissions from each of the dryers (System 1 Dryer and System 2 Dryer) to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

(q) There are no other 326 IAC 8 Rules that are applicable to the dryers (System 1 Dryer and System 2 Dryer).

Natural Gas-Fired Boilers (Boiler YS and Boiler J)

(r) 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating)

(1) Pursuant to 326 IAC 6-2-1(c), the natural gas-fired Boiler YS rated at 6.10 MMBtu/hr is subject to the requirements of 326 IAC 6-2-3, since it is a source of indirect heating that was constructed before September 21, 1983, and is located in St. Joseph County. Pursuant to 326 IAC 6-2-3(e), the particulate matter emissions from the natural gas-fired Boiler YS shall not exceed 0.6 lb/MMBtu, since it has a maximum operating capacity rating of less than 250 MMBtu/hr and began operation after June 8, 1972.

Based on the AP-42, Chapter 1.4, natural gas combustion particulate emission factor of 1.9 pounds per million cubic foot (MMCF) of natural gas, Boiler YS has particulate emissions as follows:

(1.9 pound PM/MMCF) * (MMCF/1000 MMBtu) = 0.0019 pound PM per MMBtu

Therefore, Boiler YS is able to comply with the particulate emission limitation under 326 IAC 6-2-3(e).

(2) Pursuant to 326 IAC 6-2-1(c), the natural gas-fired Boiler J rated at 20.32 MMBtu/hr is subject to the requirements of 326 IAC 6-2-3, since it is a source of indirect heating that was constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4, particulate matter emissions from Boiler J shall be limited by the following equation:

$Pt = 1.09/Q^{0.26}$ where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. (Q = 6.10 + 23.32 = 29.42 MMBtu/hr)

Pursuant to this rule, the particulate emissions from Boiler J shall not exceed 0.452 lb/MMBtu, based on a total source maximum operating capacity of 29.42 MMBtu/hr.

Based on the AP-42, Chapter 1.4, natural gas combustion particulate emission factor of 1.9 pounds per million cubic foot (MMCF) of natural gas, Boiler J has particulate emissions as follows:

(1.9 pound PM/MMCF) * (MMCF/1000 MMBtu) = 0.0019 pound PM per MMBtu

Therefore, Boiler J is able to comply with the particulate emission limitation under 326 IAC 6-2-4.

(s) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(b), each of the natural gas-fired boilers (Boiler YS and Boiler J) is not subject to the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County), since they each burn only natural gas.

(t) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(1), each of the natural gas-fired boilers (Boiler YS and Boiler J) is exempt from the requirements of 326 IAC 6-3, because they each are a source of indirect heating.

## Compliance Determination, Monitoring and Testing Requirements

(a) There are no compliance determination and monitoring requirements applicable to this source.

(b) The testing requirements applicable to this source are as follows:

Pursuant to Non-rule Policy Document titled "Approval and Validation of Alternate Emission Factors" (Air-014-NPD) and in order to verify compliance with 326 IAC 2-6.1-5 and the VOC emission factor when drying pet food, the Permittee shall perform a one-time performance test on one (1) of the dryers (System 1 Dryer or System 2 Dryer) to verify the VOC emission factor when drying pet food not later than 180 days after issuance of this permit, No. M141-30866-00578*, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

*Both the dryers are already in operation prior to the issuance of this permit,

## Conclusion and Recommendation

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 September 1, 2011. Additional information was submitted on September 8, 2011, September 12, 2011, September 20, 2011, October 28, 2011, and October 31, 2011.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction MSOP No. M141-30866-00578. The staff recommends to the Commissioner that this New Source Construction and MSOP be approved.

## IDEM Contact

(a) Questions regarding this proposed permit can be directed to Nathan Bell at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5670 or toll free at 1-800-451-6027 extension 35670.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

**TSD Appendix A: Emission Calculations**
**Emissions Summary**

**Company Name:** WellPet LLC
**Source Address:** 1101 W. 11th Street, Mishawaka, IN 46544
**Permit No.:** M141-30866-00578
**Reviewer:** Nathan C. Bell

| | Unlimited Potential to Emit (PTE) (tons/year) Before Integral Controls* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Description | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Worst Single HAP | |
| **Non-Fugitive Emissions** | | | | | | | | | | | |
| Receiving Pit - Straight Truck | 5.0 | 1.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Enclosed Material Elevator and Conveying System | 1.7 | 0.94 | 0.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Storage Bins | 0.7 | 0.17 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Ribbon Mixer | 1.1 | 0.27 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Hammermill** | 10.3 | 5.1 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Extruder** | 1.3 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 5.1 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 1 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Hammermill** | 10.3 | 5.1 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Extruder** | 1.3 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 5.1 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 2 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Bagging Operation | 2.6 | 1.4 | 0.25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Boiler YS and Boiler J (worst case)*** | 0.17 | 0.66 | 0.66 | 0.05 | 8.7 | 0.48 | 7.3 | 10534 | 0.16 | 0.16 | (hexane) |
| **Total PTE (Non-Fugitive)**** | **45.6** | **41.9** | **35.8** | **0.10** | **15.9** | **10.6** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |
| | | | | | | | | | | | |
| **Fugitive Emissions**** | | | | | | | | | | | |
| Paved Roads***** | 2.2 | 0.45 | 0.11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| **Total PTE (Fugitive)**** | **2.2** | **0.45** | **0.11** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **---** |
| | | | | | | | | | | | |
| **Total PTE (Non-Fugitive and Fugitive)**** | **47.8** | **42.3** | **35.9** | **0.10** | **15.9** | **10.6** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |

| | Unlimited Potential to Emit (PTE) (tons/year) After Integral Controls* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Description | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Worst Single HAP | |
| **Non-Fugitive Emissions** | | | | | | | | | | | |
| Receiving Pit - Straight Truck | 5.0 | 1.6 | 0.28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Enclosed Material Elevator and Conveying System | 1.7 | 0.94 | 0.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Storage Bins | 0.7 | 0.17 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Ribbon Mixer | 1.1 | 0.27 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Hammermill** | 0.10 | 0.05 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Extruder** | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 5.1 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 1 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Hammermill** | 10.3 | 5.1 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Extruder** | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 5.1 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 2 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Bagging Operation | 2.6 | 1.4 | 0.25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Boiler YS and Boiler J (worst case)*** | 0.17 | 0.66 | 0.66 | 0.05 | 8.7 | 0.48 | 7.3 | 10534 | 0.16 | 0.16 | (hexane) |
| **Total PTE (Non-Fugitive)**** | **32.9** | **35.3** | **30.4** | **0.10** | **15.9** | **10.6** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |
| | | | | | | | | | | | |
| **Fugitive Emissions**** | | | | | | | | | | | |
| Paved Roads***** | 2.2 | 0.45 | 0.11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| **Total PTE (Fugitive)**** | **2.2** | **0.45** | **0.11** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **---** |
| | | | | | | | | | | | |
| **Total PTE (Non-Fugitive and Fugitive)**** | **35.1** | **35.8** | **30.6** | **0.10** | **15.9** | **10.6** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |

| | Limited Potential to Emit (PTE) (tons/year) After Integral Controls* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Process Description | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Worst Single HAP | |
| **Non-Fugitive Emissions** | | | | | | | | | | | |
| Receiving Pit - Straight Truck | 5.0 | 1.6 | 0.28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Enclosed Material Elevator and Conveying System | 1.7 | 0.94 | 0.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Storage Bins | 0.7 | 0.17 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Ribbon Mixer | 1.1 | 0.27 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Hammermill** | 0.10 | 0.05 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Extruder** | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 1 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 24.87 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 1 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Hammermill** | 0.10 | 0.05 | 0.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Extruder** | 0.01 | 0.007 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| System 2 Dryer (heating zone) | 4.4 | 11.8 | 11.8 | 0.02 | 3.6 | 24.87 | 3.0 | 4355 | 0.07 | 0.06 | (hexane) |
| System 2 Dryer (cooling zone) | 1.3 | 0.72 | 0.12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Bagging Operation | 2.6 | 1.4 | 0.25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| Boiler YS and Boiler J (worst case)*** | 0.17 | 0.66 | 0.66 | 0.05 | 8.7 | 0.48 | 7.3 | 10534 | 0.16 | 0.16 | (hexane) |
| **Total PTE (Non-Fugitive)**** | **22.7** | **30.3** | **25.4** | **0.10** | **15.9** | **50.2** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |
| | | | | | | ******see note for Total PTE of VOC | | | | | |
| **Fugitive Emissions**** | | | | | | | | | | | |
| Paved Roads***** | 2.2 | 0.45 | 0.11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- |
| **Total PTE (Fugitive)**** | **2.2** | **0.45** | **0.11** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **---** |
| | | | | | | | | | | | |
| **Total PTE (Non-Fugitive and Fugitive)**** | **25.0** | **30.7** | **25.5** | **0.10** | **15.9** | **50.2** | **13.4** | **19244** | **0.30** | **0.29** | **(hexane)** |

Notes:

*Potential to Emit (PTE) is based on rated capacity at 8,760 hours/year.

**IDEM, OAQ has evaluated the information submitted and agrees that the baghouses 1812 and1813 and cyclones 1025 and 1126 should be considered an integral part of the pet food manufacturing process. Therefore, the permitting level will be determined using the potential to emit after baghouses 1812 and1813 and cyclones 1025 and 1126. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6.5 (Particulate Matter Limitations Except Lake County), potential particulate matter emissions from the hammermills and extruders were calculated before consideration of the controls.

***Only one (1) natural gas-fired steam boiler can operate at a time. Therefore, the potential to emit is based on the worst case steam boiler.

****The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability. However, since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD and Part 70 Permit applicability.

*****Mitigated PTE (tons/yr) is taking natural mitigation due to precipitation into consideration.

******The Total Limited PTE of VOC is greater than the Total Unlimited PTE of VOC, since the Permittee has requested a limit of less than 25 tons per year for each of the dryers.

**TSD Appendix A: Emission Calculations**
**Material Receiving, Handling, Storage, and Packaging**

**Company Name:** **WellPet LLC**
**Source Address:** **1101 W. 11th Street, Mishawaka, IN 46544**
**Permit No.:** **M141-30866-00578**
**Reviewer:** **Nathan C. Bell**

**Bottleneck Material Throughputs**

| | Bottleneck Material Throughputs (tons/hour)* | | | | | |
|---|---|---|---|---|---|---|
| Emissions Unit Description | Bulk Material | Non-Bulk Materials | Total | Maximum Annual Hours of Operation (hours/year) | Total Bottleneck Material Throughput (tons/yr) | Notes |
| Receiving Pit - Straight Truck | 13.283 | 0.0 | 13.283 | 4,160 | 55,259 | bulk materials only |
| Enclosed Material Elevator and Conveying System*** | 13.283 | 0.0 | 13.283 | 4,160 | 55,259 | bulk materials only |
| Storage Bins | 13.283 | 0.0 | 13.283 | 4,160 | 55,259 | bulk materials only |
| Ribbon Mixer | 13.283 | 7.149 | 20.433 | 4,160 | 85,000 | bulk and non-bulk materials |
| System 1 Hammermill**** | 3.154 | 0.340 | 3.494 | 8,760 | 30,605 | bulk and non-bulk materials |
| System 1 Extruder*** | 3.494 | 1.359 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| System 1 Dryer (heating zone)*** | 4.852 | 0.0 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| System 1 Dryer (cooling zone)*** | 4.852 | 0.0 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| System 2 Hammermill**** | 3.154 | 0.340 | 3.494 | 8,760 | 30,605 | bulk and non-bulk materials |
| System 2 Extruder*** | 3.494 | 1.359 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| System 2 Dryer (heating zone)*** | 4.852 | 0.0 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| System 2 Dryer (cooling zone)*** | 4.852 | 0.0 | 4.852 | 8,760 | 42,507 | bulk and non-bulk materials |
| Bagging Operation*** | 9.705 | 0.0 | 9.705 | 8,760 | 85,014 | bulk and non-bulk materials |

**Potential to Emit (PTE) of PM, PM10, and PM2.5**

| | | Uncontrolled Emission Factor (lbs/ton)** | | | Uncontrolled PTE (tons/year) | | | | | Controlled PTE (tons/year) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emissions Unit Description | Total Bottleneck Material Throughput (tons/yr) | PM | PM10 | PM2.5 | PM | PM10 | PM2.5 | Control Device(s) | Collection and Control Efficiency (%) | PM | PM10 | PM2.5 |
| Receiving Pit - Straight Truck | 55,259 | 0.18 | 0.059 | 0.010 | 4.97 | 1.63 | 0.28 | Cyclone 2013A / Baghouse 2013 | 99.0% | 0.05 | 0.02 | 2.8E-03 |
| Enclosed Material Elevator and Conveying System*** | 55,259 | 0.061 | 0.034 | 0.0058 | 1.69 | 0.94 | 0.16 | Enclosed | 99.0% | 0.02 | 9.4E-03 | 1.6E-03 |
| Storage Bins | 55,259 | 0.025 | 0.0063 | 0.0011 | 0.69 | 0.17 | 0.03 | None | 99.0% | 0.01 | 1.7E-03 | 3.0E-04 |
| Ribbon Mixer | 85,000 | 0.025 | 0.0063 | 0.0011 | 1.06 | 0.27 | 0.05 | None | 0.0% | 1.06 | 0.27 | 0.05 |
| System 1 Hammermill**** | 30,605 | 0.67 | 0.335 | 0.335 | 10.25 | 5.13 | 5.13 | Baghouse 1812***** | 99.0% | 0.10 | 0.05 | 0.05 |
| System 1 Extruder*** | 42,507 | 0.061 | 0.034 | 0.0058 | 1.30 | 0.72 | 0.12 | Cyclone 1025***** | 99.0% | 0.01 | 7.2E-03 | 1.2E-03 |
| System 1 Dryer (heating zone)*** | 42,507 | see Dryer 1 calculations on page 3 of 7 | | | | | | | | | | |
| System 1 Dryer (cooling zone)*** | 42,507 | 0.061 | 0.034 | 0.0058 | 1.30 | 0.72 | 0.12 | Cyclones 1031C1 and 1031C2 | 99.0% | 0.01 | 7.2E-03 | 1.2E-03 |
| System 2 Hammermill**** | 30,605 | 0.67 | 0.335 | 0.335 | 10.25 | 5.13 | 5.13 | Baghouse 1813***** | 99.0% | 0.10 | 0.05 | 0.05 |
| System 2 Extruder*** | 42,507 | 0.061 | 0.034 | 0.0058 | 1.30 | 0.72 | 0.12 | Cyclone 1126***** | 99.0% | 0.01 | 7.2E-03 | 1.2E-03 |
| System 2 Dryer (heating zone)*** | 42,507 | see Dryer 2 calculations on page 4 of 7 | | | | | | | | | | |
| System 2 Dryer (cooling zone)*** | 42,507 | 0.061 | 0.034 | 0.0058 | 1.30 | 0.72 | 0.12 | Cyclone 1119C | 99.0% | 0.01 | 7.2E-03 | 1.2E-03 |
| Bagging Operation*** | 85,014 | 0.061 | 0.034 | 0.0058 | 2.59 | 1.45 | 0.25 | None | 0.0% | 2.59 | 1.45 | 0.25 |

**Methodology**

* Note: The bottleneck throughputs of bulk and non-bulk materials are based on the maximum throughput of the extruder processes. System 1 Extruder and System 2 Extruder each have a maximum material throughput capacity of 42,507 tons per year, with a combined capacity of 42,507 + 42,507 = 85,014 tons per year (total of bulk and non-bulk materials).

** Since there are no AP-42 emissions factors for pet food, the emission factors used as alternative emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03). As a worst case estimate, the dry materials used to make pet food and the finished pet food product are assumed to be similar to grain.

*** Emissions from Conveying, Extruding Drying, Cooling, and Bagging assumed equal to emissions from Headhouse and Grain Handling from AP 42 Table 9.9.1-1.

**** For the hammermills, the uncontrolled emission factor was calculated from AP-42 controlled emission factors and assuming a control efficiency of 90% for cyclones. Based on footnote (g) in AP 42 Table 9.9.1-2, PM-10 emission factors for hammermills can be estimated by taking 50 percent of the filterable PM emission factor. PM2.5 assumed equal to PM10 There is no emission factor for PM2.5 emissions from hammermills. Therefore, PM2.5 emissions assumed equal to PM10 emissions.

***** IDEM, OAQ has evaluated the information submitted and agrees that the baghouses 1812 and1813 and cyclones 1025 and 1126 should be considered an integral part of the pet food manufacturing process. Therefore, the permitting level will be determined using the potential to emit after baghouses 1812 and1813 and cyclones 1025 and 1126. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6.5 (Particulate Matter Limitations Except Lake County), potential particulate matter emissions from the hammermills and extruders were calculated before consideration of the controls.

Uncontrolled PTE of PM/PM10/PM2.5 (tons/yr) = [Potential Material Throughput (tons/yr)] * [Uncontrolled Emission Factor (lbs/ton)] * [ton/2,000 lbs]
Controlled PTE of PM/PM10/PM2.5 (tons/yr) = [Uncontrolled PTE of PM/PM10/PM2.5 (tons/yr)] * [1 - Control Efficiency]

**Abbreviations**

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

**TSD Appendix A: Emission Calculations**
**Natural Gas Combustion and Process Emissions**
**System 1 Dryer**

**Company Name:** **WellPet LLC**
**Source Address:** **1101 W. 11th Street, Mishawaka, IN 46544**
**Permit No.:** **M141-30866-00578**
**Reviewer:** **Nathan C. Bell**

**Dryer Natural Gas Combustion Emissions**

| | | | Criteria Pollutants | | | | | | | GHGs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PM*,** | PM10*,** | PM2.5*,** | SO2 | NOx | VOC** | CO | CO2 | N2O | CH4 | GHG Mass-Based | CO2e |
| Emission Factor in lb/MMCF | | | 1.9 | 7.6 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 | 120000 | 2.2 | 2.3 | | |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | | |
| System 1 Dryer | 8.40 | 72.14 | 0.07 | 0.27 | 0.27 | 0.02 | 3.61 | 0.20 | 3.03 | 4328.5 | 0.079 | 0.083 | 4328.6 | 4354.8 |

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2. NOx EF based on uncontrolled firing.
*PM includes filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
**The dryer process emissions calculated below include both the process emissions and the combustion emission.

| | | | HAPs - Organics | | | | | HAPs - Metals | | | | | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | DCB | Formaldehyde | Hexane | Toluene | Pb | Cd | Cr | Mn | Ni | |
| Emission Factor in lb/MMCF | | | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | 1.8880 |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | |
| System 1 Dryer | 8.40 | 72.14 | 7.6E-05 | 4.3E-05 | 2.7E-03 | 0.06 | 1.2E-04 | 1.8E-05 | 4.0E-05 | 5.0E-05 | 1.4E-05 | 7.6E-05 | 0.07 |

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs are available in the AP-42 tables referenced above.
Total HAPs is the sum of all HAP emission factors listed in AP-42 Tables 1.4-3 and 1.4-4.

**Methodology**
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = [Heat Input Capacity (MMBtu/hr)] * [8,760 hours/year] * [1 MMCF/1,020 MMBtu]
Potential Emission (tons/yr) = [Potential Throughput (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [1 ton/2,000 lb]

*GHGs:*
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

**Dryer Process Emissions**

| Emission Unit | Bottleneck Pet Food Output Capacity (ton/year)* | Maximum Meat Content (%) | Bottleneck Meat Throughput (ton/year) | Emission Factor (lb/ton) | | | | Unlimited PTE (ton/yr) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PM** | PM10** | PM2.5** | VOC*** | PM | PM10 | PM2.5 | VOC |
| System 1 Dryer | 42,507 | 20.0% | 8,501 | 1.027 | 2.775 | 2.775 | 1.19 | 4.36 | 11.80 | 11.80 | 5.06 |

| VOC Limit (lb/ton) | Limited PTE of VOC (tons/yr) |
|---|---|
| 1.17 | 24.87 |

**Methodology**
*Based on information provided by the source, the extruder process is the bottleneck in the pet food production process. The bottleneck material throughput capacity for the System 1 Extruder is 42,507 tons per year.
**PM10 and PM2.5 Emission Factors are from Naturally Recycled Proteins of Indiana, LLC Part 70 Operating Permit No. T009-30510-00025, which is based on emissions testing for a meat product drying operation at a Naturally Recycled Proteins facility in Iowa, with a conservative factor built in (includes filterable and condensable). PM includes filterable only (37% of the PM10
***VOC Emission Factor is from Naturally Recycled Proteins of Indiana, LLC Part 70 Operating Permit No. T009-30510-00025, which is based on VOCs measured in a meat product drying operation at a Naturally Recycled Proteins facility in Iowa using a hand-held RKI Eagle Portable Gas Detector model E-08080 calibrated to respond as hexane.

Bottleneck Meat Throughput (ton/year) = [Bottleneck Pet Food Output Capacity (ton/year)] * [Maximum Meat Content (%)]
Unlimited PTE (ton/yr) = [Bottleneck Meat Throughput (ton/year)] * [Emission Factor (lb/ton)] * [1 ton/2000 lb]
Limited PTE of VOC (ton/yr) = [Bottleneck Meat Throughput (ton/year)] * [VOC Limit (lb/ton)] * [1 ton/2000 lb]

**Abbreviations**

| | | |
|---|---|---|
| PM = Particulate Matter | DCB = Dichlorobenzene | GHGs = Greenhosue Gases |
| PM10 = Particulate Matter (<10 um) | Pb = Lead | CO2 = Cabon Dioxide |
| SO2 = Sulfur Dioxide | Cd = Cadmium | CH4 = Methane |
| NOx = Nitrous Oxides | Cr = Chromium | N2O = Nitrous Oxide |
| VOC = Volatile Organic Compounds | Mn = Manganese | CO2e = CO2 equivalent emissions |
| CO = Carbon Monoxide | Ni = Nickel | PTE = Potential to Emit |

**TSD Appendix A: Emission Calculations**
**Natural Gas Combustion and Process Emissions**
**System 2 Dryer**

**Company Name:** **WellPet LLC**
**Source Address:** **1101 W. 11th Street, Mishawaka, IN 46544**
**Permit No.:** **M141-30866-00578**
**Reviewer:** **Nathan C. Bell**

**Dryer Natural Gas Combustion Emissions**

| | | | Criteria Pollutants | | | | | | | GHGs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PM*,** | PM10*,** | PM2.5*,** | SO2 | NOx | VOC** | CO | CO2 | N2O | CH4 | GHG Mass-Based | CO2e |
| Emission Factor in lb/MMCF | | | 1.9 | 7.6 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 | 120000 | 2.2 | 2.3 | | |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | | |
| System 2 Dryer | 8.40 | 72.14 | 0.07 | 0.27 | 0.27 | 0.02 | 3.61 | 0.20 | 3.03 | 4328.5 | 0.079 | 0.083 | 4328.6 | 4354.8 |

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2. NOx EF based on uncontrolled firing.
*PM includes filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
**The dryer process emissions calculated below include both the process emissions and the combustion emission.

| | | | HAPs - Organics | | | | | HAPs - Metals | | | | | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | DCB | Formaldehyde | Hexane | Toluene | Pb | Cd | Cr | Mn | Ni | |
| Emission Factor in lb/MMCF | | | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | 1.8880 |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | |
| System 2 Dryer | 8.40 | 72.14 | 7.6E-05 | 4.3E-05 | 2.7E-03 | 0.06 | 1.2E-04 | 1.8E-05 | 4.0E-05 | 5.0E-05 | 1.4E-05 | 7.6E-05 | 0.07 |

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs are available in the AP-42 tables referenced above.
Total HAPs is the sum of all HAP emission factors listed in AP-42 Tables 1.4-3 and 1.4-4.

**Methodology**
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = [Heat Input Capacity (MMBtu/hr)] * [8,760 hours/year] * [1 MMCF/1,020 MMBtu]
Potential Emission (tons/yr) = [Potential Throughput (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [1 ton/2,000 lb]

*GHGs:*
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

**Dryer Process Emissions**

| Emission Unit | Bottleneck Pet Food Output Capacity (ton/year)* | Maximum Meat Content (%) | Bottleneck Meat Throughput (ton/year) | Emission Factor (lb/ton) | | | | Unlimited PTE (ton/yr) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PM** | PM10** | PM2.5** | VOC*** | PM | PM10 | PM2.5 | VOC |
| System 2 Dryer | 42,507 | 20.0% | 8,501 | 1.027 | 2.775 | 2.775 | 1.19 | 4.36 | 11.80 | 11.80 | 5.06 |

| VOC Limit (lb/ton) | Limited PTE of VOC (tons/yr) |
|---|---|
| 1.17 | 24.87 |

**Methodology**
*Based on information provided by the source, the extruder process is the bottleneck in the pet food production process. The bottleneck material throughput capacity for the System 2 Extruder is 42,507 tons per year.
**PM10 and PM2.5 Emission Factors are from Naturally Recycled Proteins of Indiana, LLC Part 70 Operating Permit No. T009-30510-00025, which is based on emissions testing for a meat product drying operation at a Naturally Recycled Proteins facility in Iowa, with a conservative factor built in (includes filterable and condensable). PM includes filterable only (37% of the PM10
***VOC Emission Factor is from Naturally Recycled Proteins of Indiana, LLC Part 70 Operating Permit No. T009-30510-00025, which is based on VOCs measured in a meat product drying operation at a Naturally Recycled Proteins facility in Iowa using a hand-held RKI Eagle Portable Gas Detector model E-08080 calibrated to respond as hexane.

Bottleneck Meat Throughput (ton/year) = [Bottleneck Pet Food Output Capacity (ton/year)] * [Maximum Meat Content (%)]
Unlimited PTE (ton/yr) = [Bottleneck Meat Throughput (ton/year)] * [Emission Factor (lb/ton)] * [1 ton/2000 lb]
Limited PTE of VOC (ton/yr) = [Bottleneck Meat Throughput (ton/year)] * [VOC Limit (lb/ton)] * [1 ton/2000 lb]

**Abbreviations**
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC = Volatile Organic Compounds
CO = Carbon Monoxide
DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel
GHGs = Greenhosue Gases
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions
PTE = Potential to Emit

**TSD Appendix A: Emission Calculations**
**Natural Gas Combustion (MMBTU/hr < 100)**
**Steam Boilers**

**Company Name:** **WellPet LLC**
**Source Address:** **1101 W. 11th Street, Mishawaka, IN 46544**
**Permit No.:** **M141-30866-00578**
**Reviewer:** **Nathan C. Bell**

| | | | Criteria Pollutants | | | | | | | GHGs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PM* | PM10* | PM2.5* | SO2 | NOx | VOC | CO | CO2 | CH4 | N2O | GHG Mass-Based | CO2e |
| Emission Factor in lb/MMCF | | | 1.9 | 7.6 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 | 120000 | 2.3 | 2.2 | | |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | | |
| Boiler YS | 6.10 | 52.39 | 0.05 | 0.20 | 0.20 | 0.02 | 2.62 | 0.14 | 2.20 | 3143.3 | 0.060 | 0.058 | 3143.4 | 3162.4 |
| Boiler J | 20.32 | 174.51 | 0.17 | 0.66 | 0.66 | 0.05 | 8.73 | 0.48 | 7.33 | 10470.8 | 0.201 | 0.192 | 10471.0 | 10534.5 |
| **Worst Case**** | | | **0.17** | **0.66** | **0.66** | **0.05** | **8.73** | **0.48** | **7.33** | **10470.8** | **0.20** | **0.19** | **10471.0** | **10534.5** |

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2. NOx EF based on uncontrolled firing.
*PM includes filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
**Only one (1) natural gas-fired steam boiler can operate at a time. Therefore, the potential to emit is based on the worst case steam boiler.

| | | | HAPs - Organics | | | | | HAPs - Metals | | | | | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | DCB | Formaldehyde | Hexane | Toluene | Pb | Cd | Cr | Mn | Ni | |
| Emission Factor in lb/MMCF | | | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | 1.888 |
| Emissions Unit | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) | | | | | | | | | | |
| Boiler YS | 6.10 | 52.39 | 5.5E-05 | 3.1E-05 | 2.0E-03 | 0.05 | 8.9E-05 | 1.3E-05 | 2.9E-05 | 3.7E-05 | 1.0E-05 | 5.5E-05 | 0.05 |
| Boiler J | 20.32 | 174.51 | 1.8E-04 | 1.0E-04 | 6.5E-03 | 0.16 | 3.0E-04 | 4.4E-05 | 9.6E-05 | 1.2E-04 | 3.3E-05 | 1.8E-04 | 0.16 |
| **Worst Case*** | | | **1.8E-04** | **1.0E-04** | **6.5E-03** | **0.16** | **3.0E-04** | **4.4E-05** | **9.6E-05** | **1.2E-04** | **3.3E-05** | **1.8E-04** | **0.16** |

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs are available in the AP-42 tables referenced above.
Total HAPs is the sum of all HAP emission factors listed in AP-42 Tables 1.4-3 and 1.4-4.
*Only one (1) natural gas-fired steam boiler can operate at a time. Therefore, the potential to emit is based on the worst case steam boiler.

**Methodology**
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = [Heat Input Capacity (MMBtu/hr)] * [8,760 hours/year] * [1 MMCF/1,020 MMBtu]
Potential Emission (tons/yr) = [Potential Throughput (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [1 ton/2,000 lb]

Greenhouse Gases (GHGs):
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

**Abbreviations**
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel
GHGs = Greenhosue Gases
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

**TSD Appendix A: Emission Calculations**
**Fugitive Dust Emissions - Paved Roads**

**Company Name:** **WellPet LLC**
**Source Address:** **1101 W. 11th Street, Mishawaka, IN 46544**
**Permit No.:** **M141-30866-00578**
**Reviewer:** **Nathan C. Bell**

Potential Material Throughput* = 85,014 (tons/year)

**Paved Roads at Industrial Site**
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

| Process | Vehicle Type | Maximum Weight of Vehicle (tons) | Maximum Weight of Load (tons) | Maximum Weight of Vehicle and Load (tons/trip) | Maximum trips per year (trip/yr) | Total Weight driven per year (ton/yr) | Maximum one-way distance (feet/trip)* | Maximum one-way distance (miles/trip) | Maximum one-way miles (miles/yr) |
|---|---|---|---|---|---|---|---|---|---|
| Material delivery truck entering site full | Grain Tanker (5 axle bulk dry tanker) | 19.0 | 26.0 | 45.0 | 3.3E+03 | 1.5E+05 | 800 | 0.15 | 495.4 |
| Material delivery truck leaving site empty | Grain Tanker (5 axle bulk dry tanker) | 19.0 | 0.0 | 19.0 | 3.3E+03 | 6.2E+04 | 800 | 0.15 | 495.4 |
| Pet food delivery truck entering site empty | Freight Truck (5 axles) | 15.0 | 0.0 | 15.0 | 3.4E+03 | 5.1E+04 | 1000 | 0.19 | 644.0 |
| Pet food delivery truck leaving site full | Freight Truck (5 axles) | 15.0 | 25.0 | 40.0 | 3.4E+03 | 1.4E+05 | 200 | 0.04 | 128.8 |
| | **Total** | | | | **13,341** | **396,294** | | | **1,764** |

Average Vehicle Weight Per Trip = 29.7 tons/trip
Average Miles Per Trip = 0.132 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

| | PM | PM10 | PM2.5 | |
|---|---|---|---|---|
| where k = | 0.011 | 0.0022 | 0.00054 | lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1) |
| W = | 29.7 | 29.7 | 29.7 | tons = average vehicle weight (provided by source) |
| sL = | 9.7 | 9.7 | 9.7 | g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3) |

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

| | PM | PM10 | PM2.5 | |
|---|---|---|---|---|
| Unmitigated Emission Factor, Ef = | 2.76 | 0.55 | 0.14 | lb/mile |
| Mitigated Emission Factor, Eext = | 2.53 | 0.51 | 0.12 | lb/mile |

| Process | Vehicle Type | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) |
|---|---|---|---|---|---|---|---|
| Grain truck entering site full | Grain Tanker (5 axle bulk dry tanker) | 0.68 | 0.14 | 0.03 | 0.63 | 0.13 | 0.03 |
| Grain truck leaving site empty | Grain Tanker (5 axle bulk dry tanker) | 0.68 | 0.14 | 0.03 | 0.63 | 0.13 | 0.03 |
| Byproduct truck entering site full | Freight Truck (5 axles) | 0.89 | 0.18 | 0.04 | 0.81 | 0.16 | 0.04 |
| Byproduct truck leaving site empty | Freight Truck (5 axles) | 0.18 | 0.04 | 0.01 | 0.16 | 0.03 | 0.01 |
| | | **2.44** | **0.49** | **0.12** | **2.23** | **0.45** | **0.11** |

**Methodology**
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)

**Abbreviations**
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

# 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**


**SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

TO: Jerry Britton
WellPet, LLC
1011 W 11th St
Mishawaka, IN 46544

DATE: December 29, 2011

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

SUBJECT: Final Decision
MSOP
141-30866-00578

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Steve Griswold (Director – Plant Operations)
Randy Martin (APM Environmental, Inc)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

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December 29, 2011

TO: Mishawaka Pen Harris Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name:** **WellPet, LLC**
**Permit Number:** **141-30866-00578**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

# Mail Code 61-53

| IDEM Staff | MIDENNEY 12/29/2011<br>WellPet LLC 141-30866-00578 (final) | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
|---|---|---|---|
| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br>**CERTIFICATE OF MAILING ONLY** |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee<br>Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Jerry Britton WellPet LLC 1011 W 11th St Mishawaka IN 46544 (Source CAATS) via confirm delivery | | | | | | | | | |
| 2 | | Steve Griswold Dir - Plant Ops WellPet LLC 1011 W 11th St Mishawaka IN 46544 *(RO CAATS)* | | | | | | | | | |
| 3 | | Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 *(Affected Party)* | | | | | | | | | |
| 4 | | Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 *(Affected Party)* | | | | | | | | | |
| 5 | | Mishawaka City Council and Mayors Office 600 E. 3rd Street Mishawaka City Hall Mishawaka IN 46546 *(Local Official)* | | | | | | | | | |
| 6 | | Mishawaka Penn Public Library 209 Lincoln Way E Mishawaka IN 46544-2084 *(Library)* | | | | | | | | | |
| 7 | | Mr. Wayne Falda South Bend Tribune 255 W Colfax Ave South Bend IN 46626 *(Affected Party)* | | | | | | | | | |
| 8 | | St. Joseph County Board of Commissioners 227 West Jefferson Blvd, South Bend IN 46601 *(Local Official)* | | | | | | | | | |
| 9 | | St. Joseph County Health Department 227 W Jefferson Blvd, Room 825 South Bend IN 46601-1870 *(Health Department)* | | | | | | | | | |
| 10 | | Randy Martin APM Environmental, Inc. PO Box 1103 Mishawaka IN 46546 *(Consultant)* | | | | | | | | | |
| 11 | | Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 *(Affected Party)* | | | | | | | | | |
| 12 | | Janco Engineered Products 920 S Logan Street Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 13 | | Stouffer Industries, Inc. 922 S Cleveland St Mishawaka IN 46544 (Affected Party) | | | | | | | | | |
| 14 | | Gibson-Lewis 1001 W. 11th Street Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 15 | | High Dollar Habits 1105 S Logan Street Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |

| Total number of pieces Listed by Sender | Total number of Pieces Received at Post Office | Postmaster, Per (Name of Receiving employee) | The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels. |
|---|---|---|---|
| 14 | | | |

FACSIMILIE OF PS Form 3877

# Mail Code 61-53

| | | | |
|---|---|---|---|
| IDEM Staff | MIDENNEY 12/29/2011<br>WellPet LLC 141-30866-00578 (final) | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender | ▶ | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br>**CERTIFICATE OF MAILING ONLY** |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee<br>Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | CJ & DJ 1901 Cedar St South Bend IN 46617 (Affected Party) | | | | | | | | | |
| 2 | | Indiana Rug Company 900 S Cleveland St Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 3 | | Cobra Enterprises 880 S Cleveland Street Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 4 | | Precision Wood Products 800 S Cleveland St Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 5 | | Occupant 805 S Cleveland St Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
| 6 | | Regal Lanes 1121 W 8th Street Mishawaka IN 46544 *(Affected Party)* | | | | | | | | | |
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| Total number of pieces Listed by Sender | Total number of Pieces Received at Post Office | Postmaster, Per (Name of Receiving employee) | |
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