

Certified Mail Number: 7008 0150 0003 5246 9840



DATE: September 4, 2008

TO: Interested Parties / Applicant

RE: EnerDel, Inc. / F097-26640-00589

FROM: Richard Wise
Administrator

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, Room 501, Indianapolis, IN 46204, **within fifteen (15) calendar days of the receipt 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 Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw



**New Source Construction
 and Federally Enforceable State Operating Permit
 INDIANA DEPARTMENT OF ENVIRONMENTAL
 MANAGEMENT
 OFFICE OF AIR QUALITY
 AND OFFICE OF ENVIRONMENTAL SERVICES**

**EnerDel, Inc.
 8740 Hague Road, Building 7
 Indianapolis, Indiana 46256**

(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.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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 FESOP under 326 IAC 2-8.

Operation Permit No.: F097-26640-00589	
Issued by:	Issuance Date: September 4, 2008
Original Signed by	Expiration Date: September 4, 2013
Richard Wise	
Administrator Office of Environmental Services	



Air Quality Hotline: 317-327-4AIR | knozone.com

**Department of Public Works
 Office of Environmental Services**

2700 Belmont Avenue
 Indianapolis, IN 46221

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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) and Office of Environmental Services (OES). The information describing the source contained in conditions A.1 through A.3 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 2-8-3(b)]

The Permittee owns and operates a stationary lithium battery manufacturing facility.

Source Address:	8740 Hague Road, Building 7, Indianapolis, IN 46256
Mailing Address:	8740 Hague Road, Building 7, Indianapolis, IN 46256
General Source Phone Number:	(317) 585-3428
SIC Code:	3691
County Location:	Marion
Source Location Status:	Nonattainment for PM2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Nonattainment NSR Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) storage tank, identified as EU1, approved for construction in 2008, with a maximum capacity of 1,700 gallons (6,435 liters), used for storing waste NMP, with emissions uncontrolled.
- (b) One (1) storage tank, identified as EU2, approved for construction in 2008, with a maximum capacity of 5 gallons (19 liters), used as a NMP storage tank, with emission uncontrolled.
- (c) One (1) storage tank, identified as EU3, approved for construction in 2008, with a maximum capacity of 14,700 gallons (55,646 liters), used for storing recovered NMP, with emissions uncontrolled.
- (d) One (1) isotainer tank, identified as EU3A, approved for construction in 2008, with a maximum capacity of 6,868 gallons (26,000 liters), with emission uncontrolled.
- (e) One (1) storage tank, identified as EU4, approved for construction in 2008, with a maximum capacity of 13,200 gallons (50,000 liters), used for storing virgin NMP, with emissions uncontrolled.
- (f) One (1) roll coating line, identified as EU10, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:
 - (1) One (1) binder dissolve tank, identified as EU7D, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.

- (2) One (1) binder stock tank, identified as EU8A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (3) One (1) mixer tank, identified as EU7A, approved for construction in 2008, with a maximum capacity of 185 gallons (700 liters) and 836 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (4) One (1) slurry stock tank, identified as EU8C, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emission uncontrolled
 - (5) One (1) charge tank, identified as EU10A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
 - (6) One (1) buffer tank, identified as EU10B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (7) One (1) drying oven, identified as EU5, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#1 and exhausting to stack EP10.
- (g) One (1) roll coating line, identified as EU11, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:
- (1) One (1) binder dissolve tank, identified as EU7B, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.
 - (2) One (1) binder stock tank, identified as EU9A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (3) One (1) mixer tank, identified as EU7E, approved for construction in 2008, with a maximum capacity of 106 gallons (400 liters) and 322 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (4) One (1) slurry stock tank, identified as EU9E, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emission uncontrolled.
 - (5) One (1) mixer tank, identified as EU7C, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters) and 161 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (6) One (1) slurry stock tank, identified as EU9C, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (7) One (1) charge tank, identified as EU11A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
 - (8) One (1) buffer tank, identified as EU11B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (9) One (1) drying oven, identified as EU6, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#2 and exhausting to stack EP11.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source consists of the following insignificant activity, as defined in 326 IAC 2-7-1(21).

- (a) Two (2) natural gas fired boilers, identified as EU13 and EU14, approved for construction in 2008, each with a maximum capacity of 6.25 MMbtu/hr, with emissions uncontrolled and exhausting to stacks EP13 and EP14 respectively. [326 IAC 6-2-4]
- (b) Two (2) roll coaters, identified as RD#1 and RD#2, constructed in 2006, used for research and development, with emissions uncontrolled.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-7) 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][326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and [326 IAC 2-8] 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) and OES, 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 and OES 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) and OES to this permit.

B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F097-26640-00589, 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 and OES, 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 [326 IAC 2-8-6]

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

B.7 Severability [326 IAC 2-8-4(4)]

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 [326 IAC 2-8-4(5)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ and OES, within a reasonable time, any information that IDEM, OAQ and OES may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and OES 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 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

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

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) The annual compliance certification report 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 and OES, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ and OES may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and OES may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and OES. IDEM, OAQ and OES may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and OES within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Office of Environmental Services phone: (317) 327-2234; fax: (317) 327-2274

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ and OES may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ and OES by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F097-26640-00589 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.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination
~~[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]~~

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ and OES determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ and OES to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ and OES at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and OES may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.19 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and OES and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months 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 and OES 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 2-8 until IDEM, OAQ and OES takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and OES any additional information identified as being needed to process the application.

B.20 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and OES in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][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, and OES or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP 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.24 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ and OES within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ and OES the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) 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.26 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.27 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [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 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of 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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and OES not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and OES 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 2-8-4][326 IAC 2-8-5(a)(1)]

C.9 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

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

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

- (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 [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

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

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

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

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (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 or OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or OES within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Indianapolis Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (c) 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 and OES on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit 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.

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) storage tank, identified as EU1, approved for construction in 2008, with a maximum capacity of 1,700 gallons (6,435 liters), used for storing waste NMP, with emissions uncontrolled.
- (b) One (1) storage tank, identified as EU2, approved for construction in 2008, with a maximum capacity of 5 gallons (19 liters), used as a NMP storage tank, with emission uncontrolled.
- (c) One (1) storage tank, identified as EU3, approved for construction in 2008, with a maximum capacity of 14,700 gallons (55,646 liters), used for storing recovered NMP, with emissions uncontrolled.
- (d) One (1) isotainer tank, identified as EU3A, approved for construction in 2008, with a maximum capacity of 6,868 gallons (26,000 liters), with emission uncontrolled.
- (e) One (1) storage tank, identified as EU4, approved for construction in 2008, with a maximum capacity of 13,200 gallons (50,000 liters), used for storing virgin NMP, with emissions uncontrolled.
- (f) One (1) roll coating line, identified as EU10, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:
 - (1) One (1) binder dissolve tank, identified as EU7D, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.
 - (2) One (1) binder stock tank, identified as EU8A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (3) One (1) mixer tank, identified as EU7A, approved for construction in 2008, with a maximum capacity of 185 gallons (700 liters) and 836 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (4) One (1) slurry stock tank, identified as EU8C, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emission uncontrolled
 - (5) One (1) charge tank, identified as EU10A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
 - (6) One (1) buffer tank, identified as EU10B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (7) One (1) drying oven, identified as EU5, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#1 and exhausting to stack EP10.

- (g) One (1) roll coating line, identified as EU11, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:
- (1) One (1) binder dissolve tank, identified as EU7B, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.
 - (2) One (1) binder stock tank, identified as EU9A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (3) One (1) mixer tank, identified as EU7E, approved for construction in 2008, with a maximum capacity of 106 gallons (400 liters) and 322 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (4) One (1) slurry stock tank, identified as EU9E, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emission uncontrolled.
 - (5) One (1) mixer tank, identified as EU7C, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters) and 161 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (6) One (1) slurry stock tank, identified as EU9C, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (7) One (1) charge tank, identified as EU11A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
 - (8) One (1) buffer tank, identified as EU11B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emission uncontrolled.
 - (9) One (1) drying oven, identified as EU6, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#2 and exhausting to stack EP11.

(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 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4:

- (a) The combined VOC usage to the two (2) coating lines, identified as EU10 and EU11, shall not exceed 2,481 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The minimum overall VOC capture and control efficiency for the scrubbers, identified as ROA#1 and ROA#2, controlling emissions from coating lines (EU10 and EU11) shall each be 97.18%.

Compliance with these emission limits, combined with the potential emissions from all other units at this source will limit the source-wide potential to emit of VOC to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70 Permit Program) are not applicable. Compliance with this condition shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Particulate Matter (PM), Particulate Matter less 10 Microns (PM10), Particulate Matter less 2.5 Microns (PM2.5), and Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4] [326 IAC 2-4.1] [326 IAC 2-1.1-5] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4:

- (a) The PM emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).
- (b) The PM10 emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).
- (c) The PM2.5 emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).

Compliance with these emission limits, combined with the potential emissions from all other units at this source will limit the source-wide potential to emit of PM, PM10, and PM2.5 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) are not applicable.

Compliance with these emission limits, combined with the potential emissions from all other units at this source will also limit single HAP to less than 10 tons per twelve (12) consecutive month period and combination HAPs to less than 25 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major) are not applicable.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-4]

- (a) Pursuant to 326 IAC 8-2-4, the Permittee shall not cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.6 pounds per gallon excluding water from the two coating lines, identified as EU10 and EU11.
- (b) Pursuant to 326 IAC 8-1-2(b), the VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, allowed in (a). This equivalency is determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

L = Applicable emission limit in pounds of VOC per gallon of coating.

D = Density of the VOC in the coating, as applied, in pounds per gallon of VOC.

A solvent density of 8.56 pounds of VOC per gallon shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. For an emission limit of 2.6 pounds of VOC per gallon of coating, this equation provides an equivalent emission limit of 3.73 pounds of VOC per gallon of solids.

- (c) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the capture system and control device shall be no less than the equivalent calculated by the following equation:

$$O = (V - E) / V * 100$$

Where:

- O = Equivalent overall efficiency of the capture system and control device as a percentage.
 V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighed average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
 E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

- (1) The overall efficiency of each scrubber (ROA#1 and ROA#2), controlling emissions from the coating lines EU10 and EU11 respectively, shall each be greater than or equal to 89.73% to comply with 326 IAC 8-1-2(c). However, this requirement is superceded by a more stringent requirement specified in D.1.1(b).

D.1.4 Particulate Emission Limitations for Manufacturing Process [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the emission units listed in the table below shall not exceed the emission rate calculated using the following equation:

$$E = 4.10 P^{0.67}$$

Where E = rate of emission in pounds per hour;
 P = process weight rate in tons per hour

The following table sets forth the maximum process weight rate for specific emission units and the allowable rate of emissions calculated for that process weight rate.

Emission Unit	P = Current Max Process Weight Rate (tons/hr)	E = Calculated Rate of Emission (lb/hr)
Mixer Tank (EU7A)	0.42	2.29
Mixer Tank (EU7C)	0.16	1.21
Mixer Tank (EU7E)	0.08	0.76

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with condition D.1.1, the Permittee shall perform VOC inlet and outlet testing to verify the capture and control efficiency for each scrubber within 60 days of achieving the maximum production rate but no later than 180 days after initial startup of each wet scrubber (identified as ROA#1 or ROA#2) using methods as approved by IDEM, OAQ or OES. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

- (b) In order to demonstrate compliance with condition D.1.2, the Permittee shall perform PM/PM10 testing within 60 days of achieving the maximum production rate but no later than 180 days after initial startup of the baghouse, identified as Dust Collector #1, controlling emissions from the mixers using methods as approved by IDEM, OAQ or OES. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.1.7 Compliance Methods

Pursuant to 326 IAC 8-1-2(a), the Permittee shall comply with the requirements of 326 IAC 8-2-4 using an emissions control device. The Permittee shall vent emissions from EU10 and EU11 to the wet scrubbers, identified as ROA#1 and ROA#2, respectively.

D.1.8 Particulate and VOC Control

- (a) In order to comply with Condition D.1.1 and D.1.3, the wet scrubbers, identified as ROA#1 and ROA#2, shall be in operation at all times when EU10 and EU11 and the dryers associated with each coating line, identified as EU5 and EU6, are in operation.
- (b) In order to comply with Condition D.1.2 and D.1.4, the baghouse identified as Dust Collector #1, shall be in operation and control emissions from EU7A, EU7C, and EU7E at all times when EU7A, EU7C, and EU7E are not completely covered.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.9 Parametric Monitoring for Scrubbers

- (a) The Permittee shall monitor the scrubber flow rate for at least once per day from the scrubbers, identified as ROA#1 and ROA#2, controlling emissions from units EU10 and EU11. When, for any one reading, the scrubber flow rate is less than 80 gallons per minute, or a rate established during the most recent stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than 80 gallons per minute or a rate established during the most recent stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instruments used for determining the scrubber flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated, maintained, and operated according to the Preventive Maintenance Plan.

D.1.10 Scrubber Malfunction

In the event that a scrubber malfunction has been observed, the affected unit will be shut down immediately in accordance with safe operating procedures until the failed unit has been repaired or the appropriate components replaced.

D.1.11 Visible Emissions Notations

- (a) Once per day visible emission notations of Dust Collector #1 stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.1.12 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the baghouse (Dust Collector #1) used in conjunction with EU7A, EU7C, and EU7E at least once per day when EU7A, EU7C, and EU7E are in operation. When, for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 to 7.0 inches of water or a range established during the last stack test, the Permittee shall take reasonable response steps in accordance with Section C - Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit
- (b) The instrument used for measuring the pressure drop shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated, maintained, and operated according to the Preventive Maintenance Plan.

D.1.13 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.14 Record Keeping Requirement

- (a) To document compliance with Conditions D.1.1, the Permittee shall maintain monthly records of VOC throughput used by the two (2) coating lines, identified as EU10 and EU11.
- (b) To document compliance with Condition D1.9, the Permittee shall maintain daily records of each scrubber, identified as ROA#1 and ROA#2, flow rates. The Permittee shall

include in its daily records when a scrubber flow rate is not taken and the reason for the lack of the scrubber flow rate reading (i.e. the process did not operate that day).

- (c) To document compliance with Condition D.1.11, the Permittee shall maintain daily records of visible emission notations of Dust Collector #1 stack exhaust. The Permittee shall include in its daily records when a visible emission notation is not taken and the reason for the lack of visible emission notation (i.e. the process did not operate that day).
- (d) To document compliance with Condition D.1.12, the Permittee shall maintain daily records of the pressure drop across the baghouse identified in Condition D.1.12. The Permittee shall include in its daily records when a pressure drop reading is not taken and the reason for the lack of the pressure drop reading (i.e. the process did not operate that day).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activity

- (a) Two (2) natural gas fired boilers, identified as EU13 and EU14, approved for construction in 2008, each with a maximum capacity of 6.25 MMBtu/hr, with emissions uncontrolled and exhausting to stacks EP13 and EP14 respectively. [326 IAC 6.5]

(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 2-8-4(1)]

D.2.1 Particulate Matter Emissions (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Indirect Heating), particulate emissions from EU13 and EU14 shall be limited to 0.56 pounds per MMBtu. The particulate emissions were 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.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q for the EU13 and EU14 is 12.5 MMBtu/hr. (6.25 + 6.25).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221-2209**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: EnerDel, Inc.
Source Address: 8740 Hague Road, Building 7, Indianapolis, Indiana 46256
Mailing Address: 8740 Hague Road, Building 7, Indianapolis, IN 46256
FESOP Permit No.: F097-26640-00589

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221-2209**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: EnerDel, Inc.
Source Address: 8740 Hague Road, Building 7, Indianapolis, Indiana 46256
Mailing Address: 8740 Hague Road, Building 7, Indianapolis, IN 46256
FESOP Permit No.: F097-26640-00589

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|--|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: EnerDel, Inc.
Source Address: 8740 Hague Road, Building 7, Indianapolis, Indiana 46256
Mailing Address: 8740 Hague Road, Building 7, Indianapolis, IN 46256
FESOP Permit No.: F097-26640-00589
Facility: Coating lines, EU10 and EU11
Parameter: VOC usage
Limit: The combined VOC usage to the two (2) coatings line, identified as EU10 and EU11, shall not exceed 2,481 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221-2209**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: EnerDel, Inc.
Source Address: 8740 Hague Road, Building 7, Indianapolis, Indiana 46256
Mailing Address: 8740 Hague Road, Indianapolis, IN 46256
FESOP Permit No.: F097-26640-00589

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

EnerDel, Inc.
8740 Hague Road, Building 7
Indianapolis, Indiana 46256

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 EnerDel, Inc. 8740 Hague Road, Building 7, Indianapolis, Indiana 46256, completed construction of the battery manufacturing facility on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on June 10, 2008 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F097-26640-00589, Plant ID No. 097-00589 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
and
Indianapolis Office of Environmental Services**

Technical Support Document (TSD) for a Source Specific Operating Agreement (SSOA) Transitioning to a Federally Enforceable State Operating Permit (FESOP) with New Source Construction (NSC)

Source Description and Location

Source Name: EnerDel, Inc.
Source Location: 8760 Hague Road, Building 7 Indianapolis, Indiana 46256
County: Marion
SIC Code: 3691
Operation Permit No.: F097-26640-00589
Permit Reviewer: A. Nguyen

On June 10, 2008, the Office of Air Quality (OAQ) and the Indianapolis Office of Environmental Services (OES) received an application from EnerDel, Inc. related to the construction and operation of a lithium battery manufacturing facility transitioning from an SSOA to a FESOP.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) SSOA No. S097-23236-00589, issued on July 6, 2006; and
- (b) First Administrative Amendment No. S097-23428-00589, issued on July 31, 2006.

Due to this application, the source is transitioning from an SSOA to a FESOP.

County Attainment Status

The source is located in Marion County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11 th Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O ₃	Attainment effective November 8, 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	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north;

Pollutant	Designation
	Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.
¹ Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion 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 designation was revoked effective June 15, 2005. Basic Nonattainment effective April 5, 2005 for PM2.5.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (3) 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. Marion 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) PM2.5

Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8th, 2008, U.S. EPA promulgated specific New Source Review rules for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

Marion County has been classified as attainment or unclassifiable in Indiana for CO, Pb,SO₂, PM10, NO₂. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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 EnerDel, Inc. on June 10, 2008, relating to the construction and operation of two (2) lithium battery coating lines. EnerDel, Inc. was previously operating under an SSOA 097-23236-00589, issued on July 6, 2006, for two (2) research and development coating lines. Due to this application, EnerDel, Inc. will transition from an SSOA to a FESOP.

The source consists of the following permitted emission unit(s):

- (a) Two (2) roll coaters, identified as RD#1 and RD#2, constructed in 2006, used for research and development, with emissions uncontrolled.

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

- (a) One (1) storage tank, identified as EU1, approved for construction in 2008, with a maximum capacity of 1,700 gallons (6,435 liters), used for storing waste NMP, with emissions uncontrolled.
- (b) One (1) storage tank, identified as EU2, approved for construction in 2008, with a maximum capacity of 5 gallons (19 liters), used as a NMP storage tank, with emission uncontrolled.
- (c) One (1) storage tank, identified as EU3, approved for construction in 2008, with a maximum capacity of 14,700 gallons (55,646 liters), used for storing recovered NMP, with emissions uncontrolled.
- (d) One (1) isotainer tank, identified as EU3A, approved for construction in 2008, with a maximum capacity of 6,868 gallons (26,000 liters), with emissions uncontrolled.
- (e) One (1) storage tank, identified as EU4, approved for construction in 2008, with a maximum capacity of 13,200 gallons (50,000 liters), used for storing virgin NMP, with emissions uncontrolled.
- (f) One (1) roll coating line, identified as EU10, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:
 - (1) One (1) binder dissolve tank, identified as EU7D, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.
 - (2) One (1) binder stock tank, identified as EU8A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (3) One (1) mixer tank, identified as EU7A, approved for construction in 2008, with a maximum capacity of 185 gallons (700 liters) and 836 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
 - (4) One (1) slurry stock tank, identified as EU8C, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emissions uncontrolled.
 - (5) One (1) charge tank, identified as EU10A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
 - (6) One (1) buffer tank, identified as EU10B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
 - (7) One (1) drying oven, identified as EU5, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#1 and exhausting to stack EP10.
- (g) One (1) roll coating line, identified as EU11, approved for construction in 2008, used to apply a final coating onto rolled aluminum or copper, consisting of the following:

- (1) One (1) binder dissolve tank, identified as EU7B, approved for construction in 2008, with a maximum capacity of 154 gallons (580 liters), with emissions uncontrolled.
- (2) One (1) binder stock tank, identified as EU9A, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
- (3) One (1) mixer tank, identified as EU7E, approved for construction in 2008, with a maximum capacity of 106 gallons (400 liters) and 322 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
- (4) One (1) slurry stock tank, identified as EU9E, approved for construction in 2008, with a maximum capacity of 265 gallons (1000 liters), with emissions uncontrolled.
- (5) One (1) mixer tank, identified as EU7C, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters) and 161 pounds per hour, with emissions controlled by Dust Collector #1, and exhausting to stack EP7.
- (6) One (1) slurry stock tank, identified as EU9C, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
- (7) One (1) charge tank, identified as EU11A, approved for construction in 2008, with a maximum capacity of 53 gallons (200 liters), with emissions uncontrolled.
- (8) One (1) buffer tank, identified as EU11B, approved for construction in 2008, with a maximum capacity of 133 gallons (500 liters), with emissions uncontrolled.
- (9) One (1) drying oven, identified as EU6, approved for construction in 2008, reusing process heat, with emissions controlled by a wet scrubber, identified as ROA#2 and exhausting to stack EP11.

Insignificant Activity

Two (2) natural gas fired boilers, identified as EU13 and EU14, approved for construction in 2008, each with a maximum capacity of 6.25 MMbtu/hr, with emissions uncontrolled and exhausting to stacks EP13 and EP14 respectively. [326 IAC 6.5]

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP

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	234.80
PM10 ⁽¹⁾	235.03
PM2.5	235.03
SO ₂	0.02
NO _x	4.03
VOC	2482.77
CO	3.38

(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".

HAPs	Potential To Emit (tons/year)
metallic HAP	> 10
TOTAL HAPs	> 25

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM10 and VOC is greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the PTE of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a FESOP (326 IAC 2-8), because the source will limit emissions of HAPs to less than the Title V major source threshold levels.

PTE of the Entire Source After Issuance of the FESOP

The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NOx	VOC	CO	Total HAPs	Worst Single HAP
Mixer Tanks (EU7A, EU7C, & EU7E) controlled by Dust Collector 1	9.90 ¹	9.90 ¹	9.90 ¹	0.00	0.00	0.00	0.00	< 25	< 10 ¹
Tanks, Mixers, and NMP Wash Tanks	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0	0
Coating Lines #1 and #2 (EU10 & EU11) where coating is applied	0	0	0	0	0	0.25 ²	0	0	0
Dryer Ovens associated with Coating lines #1 and #2 (EU10 & EU11) controlled by scrubbers	0	0	0	0	0	69.96 ²	0	0	0
Two (2) boilers	0.08	0.31	0.31	0.02	4.03	0.22	3.38	negl.	negl.
Two (2) Existing R & D lines	0	0	0	0	0	< 1	0	0	0
Total PTE of Entire Source	9.98	10.21	10.21	0.02	4.03	71.98	3.38	< 25	< 10
Title V Major Source Thresholds	NA	100	-	100	100	100	100	25	10
PSD & Nonattainment NSR Major Source Thresholds	250	250	100	250	250	250	250	NA	NA
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".									

- 1 - The source has indicated that all PM, PM2.5, and PM10 is considered a HAP (which the source has requested to be considered confidential information). Therefore, the source has agreed to limit PM/PM2.5/PM10 emissions from the mixer tanks (EU7A, EU7C, and EU7E) to 2.26 pounds per hour. Compliance with this limit will ensure that any single metallic HAP will be less than 10 tons per year, combined HAPs will be less than 25 tons per year, and PM2.5/PM10 will be less than 100 tons per year such that the requirements of 326 IAC 2-7 and 326 IAC 2-1.1-5 are not applicable.
- 2 - The VOC potential to emit after issuance is based on applying an overall capture and control efficiency to the unlimited potential to emit to make VOC emissions less than 100 tons per year, such that the requirements of 326 IAC 2-7 are not applicable. 99.99% of VOC emissions are emitted during the drying process. Only 0.01% of the VOC emissions are emitting during the coating process.

(a) **FESOP Status**

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is limited to less than ten (10) tons per year for a single

HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP). For this application, the source has indicated that all PM, PM10, and PM2.5 will be considered a HAP. The source will be limiting PM, PM10, and PM2.5 emissions to less than 10 tons per year which will also limit HAP emissions to less than 10 tons per year.

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the source shall comply with the following:

- (1) The PM2.5 emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).
- (2) The PM10 emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).
- (3) The combined VOC usage to the two (2) coating lines, identified as EU10 and EU11, shall not exceed 2,481 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (4) The minimum overall VOC capture and control efficiency for the scrubbers, identified as ROA#1 and ROA#2, controlling emissions from coating lines (EU10 and EU11) shall each be 97.18%.

Compliance with these limits, combined with the potential to emit of PM2.5, PM10, and VOC from all other emission units at this source, shall limit the source-wide total potential to emit of PM2.5, PM10, and VOC to less than 100 tons per 12 consecutive month and also limit any single HAP to less than ten (10) tons per 12 consecutive month period, and total HAPs to less than twenty-five (25) tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-1.1-5 (Nonattainment New Source Review), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

(b) PSD Minor Source

- (1) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of VOC is limited to less than 250 tons per year and the potential to emit all other attainment regulated pollutants are less 250 tons 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.
- (2) The PM emissions from the mixers, identified as EU7A, EU7C, and EU7E, shall not exceed a combined emission rate of 2.26 pounds per hour (lbs/hr).

(c) Nonattainment New Source Review

This existing source is not a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM2.5 is limited to less than 100 tons per year or more. Therefore, the Nonattainment New Source Review requirements are not applicable.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Metal Coil Surface Coating, 40 CFR 60.460 Subpart TT (326 IAC 12), are not included in the permit, because the maximum thickness of the metal being coating at EnerDel, Inc. is 0.0012 inches. This rule applies to metal coil systems used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.
- (b) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60.110b Subpart Kb (326 IAC 12), are not included in the permit, because there are no storage vessels located at the facility with a capacity greater than or equal to 75 cubic meter (m³) or 19,812.9 gallons
- (c) The requirements of the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40c Subpart Dc (326 IAC 12), are not included in the permit because the boilers identified as EU13 and EU14 each have a maximum heat input capacity of less than ten (10) million British Thermal units per hour (MMBtu/hr).
- (d) The requirements of the New Source Performance Standard for Lead-Acid Battery Manufacturing Plants, 40 CFR 60.370 Subpart KK (326 IAC 12), are not included in the permit because EnerDel, Inc. is not a lead-acid manufacturing plant.
- (e) There are no other New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63.3880, Subpart MMMM (326 IAC 20-80-1), are not included in this permit, because EnerDel, Inc., as a FESOP, has limited HAP emissions to less than major source thresholds and therefore is not considered a major source, is not located at a major source, and is not part of a major source of emissions of HAPs.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products, 40 CFR 63.4480, Subpart PPPP (326 IAC 20-81-1), are not included in the permit, since EnerDel, Inc. does not coat plastic parts or products, is not considered a major source, is not located at a major source, and is not part of a major source of emissions of HAPs.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (40 CFR 63,11169) Subpart HHHHHH, are not included in the permit, because EnerDel, Inc. only uses a roll coating process and does not perform spray coating application process.
- (i) There are no other 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)

- (j) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to 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 1-5-2 (Emergency Reduction Plans)
An Emergency Reduction Plan (ERP) is not required for EnerDel, Inc. because all regulated pollutants have been limited to less than hundred (100) tons per year.
- (b) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (c) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (d) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
Nonattainment New Source Review applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (e) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from the source is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. The HAP for this source is a metallic HAP which is considered PM10. However, the source has agreed to limit PM10 emissions from the source to less than ten (10) tons per year which will also limit any single HAP to less than ten (10) tons per year and combination HAPs to less than twenty-five (25) tons per year. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Section above.
- (f) 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 opting to be a FESOP, 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.
- (g) 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.
- (h) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

Since the source has limited the potential to emit of particulate matter emissions less than 100 tons per year and actual emissions to less than 10 tons per year. Therefore the requirements of 326 IAC 6.5-1 are not applicable to the source. This source is not specifically identified in 326 IAC 6.5-6. Therefore, 326 IAC 6.5-6 does not apply.

- (i) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (j) 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
- (k) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
Neither the source or any individual emission units has potential to emit of SO₂ greater than 10 pounds per hour or 25 tons per year. Therefore, 326 IAC 7-1.1 does not apply.

Coating line

- (l) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
This rule establishes VOC limits for facilities with potential VOC emissions equal to or greater than 25 tons per year, if the facility is not subject any other rules under 326 IAC 8. The two (2) coating lines (EU10 and EU11) have potential VOC emission greater than 25 tons per year each; however, they are subject to the requirements of 326 IAC 8-2-4 (Coil Coating Operations), therefore the requirements of 326 IAC 8-1-6 do not apply.
- (m) 326 IAC 8-2-4 (Coil Coating Operations)
The rolls of aluminum and copper that are being coated are considered coil coating operations. Pursuant to 326 IAC 8-2-4, EnerDel, Inc. shall not cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.6 pounds per gallon excluding water from the each of two coating lines, identified as EU10 and EU11. 99.99% of the VOC emissions from the coating lines occur at the dryers, identified as EU5 and EU6. Pursuant to 326 IAC 8-1-2, in order to comply with this limit, the overall capture and control efficiency of each scrubber shall be no less than 89.73% (see Appendix A, page 6).
- (n) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
This rule establishes emissions limits for processes engaged in coating metal parts. However, 326 IAC 8-2-9(b) states that surface coating operations subject to other sections of 326 IAC 8-2 are not subject to 326 IAC 8-2-9. The two coating line dryers (EU10 and EU11) are subject to 326 IAC 8-2-4, therefore, 326 IAC 8-2-9 does not apply.

Mixers

- (o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the emission units listed in the table below shall not exceed the emission rate calculated using the following equation:

$$E = 4.10 P^{0.67}$$

Where E = rate of emission in pounds per hour;
P = process weight rate in tons per hour

The following table sets forth the maximum process weight rate for specific emission units and the allowable rate of emissions calculated for that process weight rate.

Emission Unit	P = Current Max Process Weight Rate (tons/hr)	E = Calculated Rate of Emission (lb/hr)	Uncontrolled PM PTE (lbs/hr)
Mixer Tank (EU7A)	0.42	2.29	53.59
Mixer Tank (EU7C)	0.16	1.21	
Mixer Tank (EU7E)	0.08	0.76	

In order to comply with this limit, Dust Collector#1 associated with emission units EU7A, EU7C, and EU7E shall be in operation and control emissions from EU7A, EU7C, and EU7E at all times when the mixers, identified as EU7A, EU7C, and EU7E are not completely covered.

Boilers

- (p) 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)
 This source is subject to 326 IAC 6-2-4 because the two (2) boilers, identified as EU13 and EU14, were constructed after September 21, 1983. Particulate emissions from EU13 and EU14 shall be limited to 0.56 pounds per MMBtu. The particulate emissions were 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.
- Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q for the EU13 and EU14 is 12.5 MMBtu/hr. (6.25 + 6.25).

- (q) 326 IAC 12 (New Source Performance Standards)
 See Federal Rule Applicability Section of this TSD.
- (r) 326 IAC 20 (Hazardous Air Pollutants)
 See Federal Rule Applicability Section of this TSD.

Compliance Determination, Monitoring and Testing Requirements
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- (a) The compliance determination and monitoring requirements applicable to this source are as follows:
 - (1) The baghouse, identified as Dust Collector #1, used for particulate control shall be in operation and control emissions from EU7A, EU7C, and EU7E at all times when the mixers, identified as EU7A, EU7C, and EU7E are not closed.
 - (2) Compliance with 326 IAC 2-8-4 and 326 IAC 8-2-4 for EU10 and EU11 shall be the operation of the wet scrubbers, identified as RO#1 and RO#2, at all times when EU10 and EU11 and the dryers associated with each coating line, identified as EU5 and EU6, are in operation.

Emission Unit	Control	Parameter	Frequency	Range	Excursions and Exceedances
EU7A, EU7C, and EU7E	Dust Collector #1	Pressure Drop	Once per day	4-7 inches	Response Steps
		Visible Emissions		Normal-Abnormal	
EU10 and EU5	Wet Scrubber ROA#1	Scrubber Flow Rate	Once per day	80 gal/min or more	Response Steps
EU11 and EU6	Wet Scrubber ROA#2	Scrubber Flow Rate	Once per day	80 gal/min or more	Response Steps

These conditions are necessary because the baghouse for EU7A, EU7C, and EU7E and the wet scrubbers for EU5 and EU6 must be in operation and operate properly to ensure compliance with 326 IAC 2-8 (FESOP), 326 IAC 8-2-4(Coil Coating Operations) and 326 IAC 6-3-2 (Particulate Matter Limitations for Manufacturing Processes).

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

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Mixer tanks (EU7A, EU7C, & EU7E)	Y	PM, PM10	within 60 days after startup but no later than 180 days after initial startup	once every 5 years
Coating Line (EU10)	Y	VOC inlet and outlet	within 60 days after startup but no later than 180 days after initial startup	once every 5 years
Coating Line (EU11)	Y	VOC inlet and outlet	within 60 days after startup but no later than 180 days after initial startup	once every 5 years

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 June 10, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Review and FESOP No. 097-26640-00589. The staff recommends to the Commissioner that this New Source Review and FESOP be approved.

OES Contact

- (a) Questions regarding this proposed permit can be directed to Anh-tuan Nguyen at Indianapolis Office of Environmental Services, Permits Section, 2700 South Belmont, Indianapolis, Indiana 46221 or by telephone at (317) 327-2353.
- (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.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (EU10 & EU11)**

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46256
Permit Number: F097-26640-00589
Pit ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Electrode slurry	11.5	60.00%	0.0%	60.0%	0.0%	19.00%	82.09250	1.000	6.90	6.90	566.44	13594.52	2481.00	0.00	36.32	100%

State Potential Emissions	Add worst case coating to all solvents	566.44	13594.52	2481.00	0.00
0.01% of VOC emissions occur at the coater and are uncontrolled		0.06	1.36	0.25	
99.99% of VOC emissions occur at the dryer and are controlled by scrubbers		566.38	13593.16	2480.75	
After Controls (scrubbers) at 97.18% control efficiency		15.97	383.33	69.96	
Total Emissions after controls		16.03	384.69	70.21	

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PM10 emissions is assumed equal to PM
PM/PM10 Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
Transfer efficiency is based on coatings rolled onto flat surface .

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boilers

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46256
Permit Number: F097-26640-00589
Plt ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

Emission Unit	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
EU13	4.6	
EU14	4.6	
	9.2	80.6

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.08	0.31	0.02	4.03	0.22	3.38

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	8.462E-05	4.836E-05	3.022E-03	7.253E-02	1.370E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.015E-05	4.433E-05	5.641E-05	1.531E-05	8.462E-05

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Tank NMP Vapor Discharge
VOC emissions

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46256
Permit Number: F097-26640-00589
Plt ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

Process Step / ID	Number & Size of Tank liters	Vapor Displaced by process (liters)	Process Temp (deg C)	Temp (K)	NMP Vapor Pressure (mmHg)	Conversion to Pa (mmHg x 133.3224)	Moles NMP	grams NMP	lbs of NMP	
NMP / EU4	(1) 50,000	6,000	4	277.15	0.23	30.66	0.0798	7.9128	0.0174	
Binder Dissolve / EU7D & EU7B	(2) 580	5,050	50	323.15	2.50	333.31	0.6265	62.0860	0.1369	
Binder Stock / EU8A & EU9A	(2) 500	5,050	43	316.15	1.12	149.32	0.2869	28.4304	0.0627	
fugitive Mixer Pump in / EU7A, EU7C, & EU7E	200, 400, 700	9,700	40	313.15	1.00	133.32	0.4967	49.2250	0.1085	
fugitive Mixer Vacuum Evac / EU7A, EU7C, & EU7E		11,800	40	313.15	1.00	133.32	0.6043	59.8820	0.1320	
Slurry Stock / EU8C, EU9C, & EU9E	500, (2) 1,000	9,700	35	308.15	0.70	93.33	0.3533	35.0166	0.0772	
Charge / EU10A & EU11A	(2) 200	9,700	30	303.15	0.45	60.00	0.2309	22.8820	0.0504	
Buffer / EU10B & EU11B	(2) 500	9,700	30	303.15	0.45	60.00	0.2309	22.8820	0.0504	
NMP-R / EU3	55,646	7,200	4	277.15	0.23	30.66	0.0958	9.4954	0.0209	
Isotainer / EU3A	26,000	7,200	4	277.15	0.23	30.66	0.0958	9.4954	0.0209	
* values above take into account both vapor displaced as a function of pumping of solvent and adding dry powder							Daily total of NMP Vapor released to atmosphere =		0.6775	lbs/day
* Vapor pressure data from BASF Chemical Company							Yearly total of NMP Vapor released to atmosphere =		0.1236	tons/yr

* There are no HAPs in NMP

Methodology

Using the relationship of Dalton's Model of Partial Pressure (that being that the partial pressure of a single component of a gaseous mixture is equivalent to the mole fraction of said component in the gaseous mixture) and the Ideal Gas Law, we can calculate the number of moles of NMP Vapor that are released into the atmosphere and based upon the Molar mass of NMP we can establish how many pounds (lbs) of NMP are released into the atmosphere.

Ideal Gas Law

$$P \times V = n \times R \times T$$

where P = pressure in atmospheres or Pascal (Pa)

V = volume measured in cubic meters or liters

n = moles of gas in lb/mol or g/mol

R = Ideal gas constant (adjusted based upon system units of measure)

T = temperature in degree K or F

Dalton's Model

$$P_a / P = n_a / n$$

where P_a = Partial pressure as a result of component (a)

P = total pressure of the mixture

n_a = Moles of component (a) in mixture (mole fraction)

n = total moles of the mixture

Molar mass of NMP = 99.10 grams/mole

Ideal Gas Constant for units, R = 8,314

moles of NMP = (P_a x V) / (R x T)

grams of NMP = moles of NMP Vapor x 99.10 grams/mole

lbs of NMP = grams of NMP x 0.002204623 lb/gram

NMP (tons/yr) = Σ daily lbs of NMP x 365 days/yr x 1 ton/ 2000 lbs

**Appendix A: Emissions Calculations
VOC and PM**

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46251
Permit Number: F097-26640-00589
Pit ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

Fugitive VOC Wash Tanks NMP Vapor Release

Using U.S. EPA Estimate Equation for Vaporative Losses from Spills:

$$QR = (0.284 \times u^{0.78} \times MW^{2/3} \times A \times VP) / (82.05 \times T)$$

where QR = evaporative loss in lb/min

u = air speed across surface of spill in m/s

MW = molecular weight of liquid spill in lb/lbmol

A = surface area of liquid spill in square feet

VP = vapor pressure of liquid spill in mmhg

T = air temperature at spill location in degree K

NMP MW = 99.10 lb/lbmol

NMP VP = 0.45 mmHg at 30 degree C (303.15 degree K)

Air Temp T = 30 degree C (303.15 degree K)

Air speed u = wash tank enclosure is design to provide 100 ft/min
air velocity across the opening

u = 100 ft/min x 0.0166 sec/min x 0.305 m/ft = 0.506 m/sec

Surface area A = 16" x 32" = 512 sqin (1 sqft / 144 sqin) = 3.56 sqft

$$QR = (0.284 \times 0.5060^{0.78} \times 99.10^{2/3} \times 3.56 \times 0.45) / (82.05 \times 303.15)$$

QR = 0.0008107 lb/min of NMP per wash tank

Wash tanks (2) Evaporative losses: QR x 2 x (60 min/hr) x (24 hr/day) =

2.335 lbs NMP per day

Evaporative losses (tons/yr): QR (lbs/day) x 365 days/yr / 1 ton/2000 lbs =

0.426 tons NMP per year

PM/PM10

Dust Collection System from Mixers (EU7A, EU7C, and EU7E)

Design Collection Capacity: 5.0 grains/cfm

Design Exhaust Air Flow: 1,250 cfm

Dust collected by system: 6,250 grains per min collected by dust collector

9,000,000 grains per day collected (grains/min x 60 mins/hr x 24 hr/day)

1,286 lbs/day dust collected (grains/day x 1.0 lb/7,000 grains)

469,286 lbs/year dust collected (lbs/day x 365 day / yr)

234 tons/year dust collected (lbs/year x 1 ton/2,000 lbs)

Dust Collector Efficiency: 99.98 % as stated by manufacturer

Uncontrolled PM/PM10 (lbs/hr): 1,286 lbs/day x 1 day/24 hrs /control efficiency (99.98%) = **53.59 lbs/hr**

Uncontrolled PM/PM10 (tons/yr): 53.59 lbs/hr x 8760 hrs/yr x 1 ton/2000 lbs = **234.72 tons/yr**

Controlled PM/PM10 (lbs/hr): 53.59 lbs/hr x (1 - control efficiency) = **0.0107 lb/hr**

Controlled PM/PM10 (tons/yr): 0.0107 lb/hr x 8760hrs/yr x 1 ton/2000 lbs = **0.047 tons/yr**

*PM emission are also a metallic HAP.

Appendix A: Emissions Calculations

Limited and Unlimited Potential to Emit Summary

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46256
Permit Number: F097-26640-00589
Pit ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

Potential to Emit

Emission Unit	PM	PM-10	PM2.5	SO2	VOC	CO	NOx	Single HAPs	Combined HAPs
Mixers (EU7A, EU7C, & EU7E) controlled by Dust Collector 1	234.72	234.72	234.72	0.00	0	0	0	234.72	234.72
Tanks, Mixers, and NMP Wash Tanks	0	0	0	0	0.55	0	0	0	0
Coating Lines #1 and #2 (EU10 & EU11) where coating is applied	0	0	0	0	0.25	0	0	0	0
Dryers associated with Coating lines #1 and #2 (EU10 & EU11) controlled by scrubbers	0	0	0	0	2480.75	0	0	0	0
Two (2) boilers (EU13 & EU14)	0.08	0.31	0.31	0.02	0.22	3.38	4.03	negligible	negligible
Two (2) Existing R & D lines (RD#1 & RD#2)	0	0	0	0	< 1	0	0	0	0
Total	234.80	235.03	235.03	0.02	2482.77	3.38	4.03	234.72	234.72

* emissions from the two (2) existing R & D are negligible

FESOP limit

Emission Unit	PM	PM-10	PM2.5	SO2	VOC	CO	NOx	Single HAPs	Combined HAPs
Mixers (EU7A, EU7C, & EU7E) controlled by Dust Collector 1	9.90	9.90	9.90	0.00	0.00	0.00	0.00	< 10	< 25
Tanks, Mixers, and NMP Wash Tanks	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0	0
Coating Lines #1 and #2 (EU10 & EU11) where coating is applied	0	0	0	0	0.25	0	0	0	0
Coating lines #1 and #2 (EU10 & EU11) at the dryers controlled by scrubbers	0	0	0	0	69.96	0	0	0	0
Two (2) boilers (EU13 & EU14)	0.08	0.31	0.31	0.02	0.22	3.38	4.03	negligible	negligible
Two (2) Existing R & D lines (RD#1 & RD#2)	0	0	0	0	< 1	0	0	0	0
Total	9.98	10.21	10.21	0.02	71.98	3.38	4.03	< 10	< 25

Compliance Demonstration for 326 IAC 8-2-4

Company Name: EnerDel, Inc.
Address City IN Zip: 8760 Hague Road, Building 7 Indianapolis, Indiana 46219
Permit Number: F097-26640-00589
Plt ID: 097-00589
Reviewer: Anh-tuan Nguyen
Date: 12-Jun-08

326 IAC 8 Compliance Calculations

If using non-compliant coatings and using control to comply, pursuant to 8-1-2(c):

The overall efficiency of any capture system and control device determined by the test methods and procedures specified in 326 IAC 8-1-4 shall be no less than the equivalent overall efficiency, which shall be calculated by the following equation:

$$O = (V - E) / V \times 100$$

Where V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

O = Equivalent overall efficiency of the capture system and control device as a percentage

Pursuant to 8-1-2(b):

E is determined by the following equation:

$$E = E_a = L_a / (1 - L_a/D_a)$$

Where E_a = Actual emissions in pounds of VOC per gallon of coating solids, as applied.

L_a = Actual VOC content in pounds of VOC per gallon of coating, as applied.

D_a = Actual density of the VOC in the coating, as applied, in pounds per gallon of VOC.

D_a = 8.56 lbs/gal, density of NMP

L_a = 2.6 lbs/gal, pursuant to 326 IAC 8-2-4, the coating lines are subject to this limit

$$E = 8.56 / (1 - 2.6/8.56) = 3.73 \text{ lbs VOC /gal of coating solids as applied}$$

Using the first equation with V = 36.32 lbs VOC /gal coating solids (taken from page 1 of Appendix A), then

$$O = (36.32 - 3.73) / 36.32 \times 100 = 89.73\%$$

In order to demonstrate compliance with 326 IAC 8-2-4, the capture and control efficiency of each scrubber shall each be no less than 89.73%.

Pursuant to 326 IAC 2-8, VOC emissions = 69.96 tons per year at 97.18% capture and control efficiency.

Pursuant to 326 IAC 8-2-4, VOC emissions = 254.77 tons per year at 89.73% capture and control efficiency.