



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: September 5, 2007
RE: BWX Technologies, Inc. / 129-24331-00022
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**BWX Technologies, Inc. NOD
1400 Old Highway 69 South
Mount Vernon, Indiana 47620**

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

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.: F 129-24331-00022	
Issued by:	Issuance Date: September 5, 2007
<i>Original signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Expiration Date: September 5, 2012

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source.

Source Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
General Source Phone Number:	812-838-1088
SIC Code:	3443
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD. 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) natural gas, propane, or No. 2 distillate oil-fired boiler, identified as SM 7567, constructed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.
- (b) One (1) natural gas or propane-fired, stress-relieving furnace, with car bottom, identified as SM 8252, constructed in 1965, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.
- (c) One (1) natural gas or propane-fired stress-relieving furnace, identified as SM 9425, constructed in 1968, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.
- (d) One (1) natural gas or propane-fired stress-relieving furnace, with car bottom, identified as SM 7495, constructed in 1963, exhausted through Stack S06, rated at 61 million British thermal units per hour.
- (e) One (1) natural gas or propane-fired plate heating furnace, with car bottom, identified as SM 8251, constructed in 1963, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.
- (f) Nine (9) submerged arc welding stations, capacity: 8 pounds of wire per station per hour.
- (g) Twenty (20) metal inert gas (MIG) welding stations, capacity: 5.5 pounds of wire per station per hour.
- (h) Twenty (20) stick welding stations, capacity: 10 pounds of wire per station per hour.

- (i) Sixteen (16) tungsten inert gas (TIG) welding stations, capacity: 1 pound of wire per station per hour.
- (j) The following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables.

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

This stationary source also includes the following insignificant activities:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour.
- (b) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year.
- (c) The following structural steel and bridge fabrication activities: Cutting 200,000 linear feet or less of one (1) inch plate or equivalent.
- (d) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (e) Manual grinding.

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

- (a) This permit, F 129-24331-00022, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 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.4 Enforceability [326 IAC 2-8-6]

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

B.5 Severability [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.6 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.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

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

B.8 Certification [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.9 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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

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

IDEM, OAQ 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.11 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 maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 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 Southwest Regional Office 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

Southwest Regional Office
Telephone Number: (812) 380-2305 (ask for Compliance Section)
Facsimile Number: (812) 380-2304.

- (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

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

- (a) All terms and conditions of permits established prior to F 129-24331-00022 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.14 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.15 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

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.16 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 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 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 at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 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 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

- (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 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 takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 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

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.19 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

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 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.20 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.21 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, 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.22 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

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.23 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 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 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.24 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 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

C.2 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 one hundred (100) 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.3 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 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

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 Accredited 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 Accredited 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.9 Performance Testing [326 IAC 3-6]

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

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

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

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

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

by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 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.11 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

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.12 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.13 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.14 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.15 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.16 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, 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.17 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 makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 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
- (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 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) 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.19 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) natural gas, propane, or No. 2 distillate oil-fired boiler, identified as SM 7567, constructed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.
- (b) One (1) natural gas or propane-fired, stress-relieving furnace, with car bottom, identified as SM 8252, constructed in 1965, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.
- (c) One (1) natural gas or propane-fired stress-relieving furnace, identified as SM 9425, constructed in 1968, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.
- (d) One (1) natural gas or propane-fired stress-relieving furnace, with car bottom, identified as SM 7495, constructed in 1963, exhausted through Stack S06, rated at 61 million British thermal units per hour.
- (e) One (1) natural gas or propane-fired plate heating furnace, with car bottom, identified as SM 8251, constructed in 1963, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.

(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 PSD and Part 70 Minor Limits [326 IAC 2-2] [326 IAC 2-8]

- (a) The total input of natural gas to all combustion facilities specified in this Section D.1, and all insignificant combustion facilities in Section D.2, shall be limited to less than 1,980 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The NO_x and CO emissions shall not exceed 100 and 84 pounds per million cubic feet of natural gas, respectively.
- (c) For purposes of determining compliance based on NO_x emissions, each kilogallon of No. 2 fuel oil shall be equivalent to 0.200 million cubic feet of natural gas, and each kilogallon of propane shall be equivalent to 0.190 million cubic feet of natural gas.

Compliance with these limits, will limit the source wide NO_x and CO emissions to less than one hundred (100) tons per year each, and will render 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable.

D.1.2 Particulate Limitation (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from the one (1) boiler, identified as SM 7567, shall in not exceed 0.8 pounds of particulate per million British thermal units heat input.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the 26.5 million

British thermal units per hour oil-fired boiler shall not exceed five tenths (0.5) pounds per MMBtu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4]

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

Compliance Determination Requirements

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 26.5 million British thermal units per hour boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhaust (Stack S01) shall be performed once per shift during normal daylight operations when burning No. 2 oil. 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.

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

D.1.7 Record Keeping Requirement

(a) To document compliance with Conditions D.1.3 and D.1.5, the Permittee shall maintain records in accordance with (1) through (6) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel usage of each fuel used since last compliance determination period;
- (3) A certification, signed by the authorized individual, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the boiler stack (S01) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address 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 the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour.
- (b) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year.
- (c) The following structural steel and bridge fabrication activities: Cutting 200,000 linear feet or less of one (1) inch plate or equivalent.
- (d) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (e) Manual grinding.

(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 [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the particulate emissions from the one (1) insignificant boiler, installed in 1992, rated at 4.0 million British thermal units per hour, shall not exceed 0.45 pounds per million British thermal units.

This limitation was computed using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

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

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. (Q = 30.5 million British thermal units per hour)

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the structural steel and bridge fabrication activities, grinding and machining operations, and manual grinding shall not exceed the pounds per hour

emission rate established by the equation:

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

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

Where:

P = process weight in tons/hr and

E = rate of emission in pounds per hour.

Compliance Determination Requirements

D.2.3 Particulate Matter (PM)

The baghouse for PM and PM₁₀ shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are taking place.

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

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

Source Name: BWX Technologies, Inc. NOD
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP Permit No.: F 129-24331-00022

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**

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

Source Name: BWX Technologies, Inc. NOD
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP Permit No.: F 129-24331-00022

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- 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**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI- ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: BWX Technologies, Inc. NOD
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP Permit No.: F 129-24331-00022

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: BWX Technologies, Inc. NOD
 Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
 Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
 FESOP Permit No.: F 129-24331-00022
 Facility: All combustion facilities
 Parameter: Natural gas or equivalent burned (NOx)
 Limit: Less than a total of 1,980 million cubic feet per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

Each kilogallon of No.2 fuel oil shall be equivalent to 0.200 million cubic feet of natural gas, and each kilogallon of propane shall be equivalent to 0.190 million cubic feet of natural gas.

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

Source Name: BWX Technologies, Inc. NOD
 Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
 Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
 FESOP Permit No.: F 129-24331-00022

Months: _____ **to** _____ **Year:** _____

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 ΔNo deviations occurred this reporting period@.	
<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.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	BWX Technologies, Inc. NOD
Source Location:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
County:	Posey
SIC Code:	3443
Permit Renewal No.:	F 129-24331-00022
Permit Reviewer:	Timothy R. Pettifor

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from BWX Technologies, Inc. NOD relating to the operation of a stationary pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source.

History

On February 21, 2007, BWX Technologies, Inc. NOD submitted applications to the OAQ requesting to renew its operating permit. BWX Technologies, Inc. NOD was issued a FESOP Renewal on November 20, 2002.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) natural gas, propane, or No. 2 distillate oil-fired boiler, identified as SM 7567, constructed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.
- (b) One (1) natural gas or propane-fired, stress-relieving furnace, with car bottom, identified as SM 8252, constructed in 1965, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.
- (c) One (1) natural gas or propane-fired stress-relieving furnace, identified as SM 9425, constructed in 1968, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.
- (d) One (1) natural gas or propane-fired stress-relieving furnace, with car bottom, identified as SM 7495, constructed in 1963, exhausted through Stack S06, rated at 61 million British thermal units per hour.
- (e) One (1) natural gas or propane-fired plate heating furnace, with car bottom, identified as SM 8251, constructed in 1963, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.
- (f) Nine (9) submerged arc welding stations, capacity: 8 pounds of wire per station per hour.
- (g) Twenty (20) metal inert gas (MIG) welding stations, capacity: 5.5 pounds of wire per station per hour.
- (h) Twenty (20) stick welding stations, capacity: 10 pounds of wire per station per hour.
- (i) Sixteen (16) tungsten inert gas (TIG) welding stations, capacity: 1 pound of wire per station per hour.

- (j) The following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no unpermitted facilities operating at this source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

- (a) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum compressed air flow and a process throughput of 13,559 pounds per hour.

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour.
- (b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour.
- (c) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year.
- (d) Combustion source flame safety purging on startup.
- (e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (g) The following VOC and HAP storage containers: Vessels storing lubrication oils, hydraulic oils, machining oils, and machining fluids.
- (h) Application of oils, greases, lubricants or other nonvolatile material applied as temporary protective coatings.
- (i) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (j) Closed loop heating and cooling systems.
- (k) The following structural steel and bridge fabrication activities: Cutting 200,000 linear feet or less of one (1) inch plate or equivalent.

- (l) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.
- (m) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.
- (n) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (q) Emergency generator as follows: Gasoline generators not exceeding 110 horsepower.
- (r) Other emergency equipment as follows: Stationary fire pumps.
- (s) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (t) Ultrasonic- Examination of material and welds:
 - Couplant - Hamikleer is used that contains:
 - Ethylene Glycol - 30 percent 349 pounds per year
 - Diethanolamine - 7.1 percent 82.6 pounds per year
- (u) Electric gantry furnace, with 850 kilowatt electric heating, identified as F301, with 1160 cubic feet per minute nitrogen and 568.5 cubic feet per minute methanol injection to maintain an inert environment to prevent scaling during heating operation. The nitrogen and methanol are reported by the Permittee to break down and result in a discharge of CO of 1 pound per hour.
- (v) Quenching operations with heat treating operations.
- (w) Manual grinding.

Existing Approvals

Since the issuance of the FESOP 129-14948-00022 on November 20, 2002, the source has constructed or has been operating under the following approvals as well:

- (a) Administrative Amendment No. 129-22377-00022, issued on January 19, 2006.

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

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Stack Dimensions (feet)	Flow Rate (acfm)	Temperature (°F)
S01	SM 7567	65	4	4660	330
S03	SM 8252	47.08	35.33	11,150	1150
S04	SM 8251	29.42	2 x 2	12,360	1150
S05	SM 9425	42.75	2 x 3	11,600	1150
S06	SM 7495	30.88	2	10,660	1150

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1-19).

County Attainment Status

The source is located in Posey County

Pollutant	Status
PM ₁₀	attainment
PM _{2.5}	attainment
SO ₂	attainment
NOx	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Posey County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Posey County has been designated as attainment for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) Posey County has been classified as attainment in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (d) 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.
- (e) Fugitive Emissions:
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	45.05
PM-10	48.35
SO ₂	59.9
VOC	12.11
CO	151.8
NO _x	352

HAPs	tons/year
Lead	1.8 E-03
Benzene	3.8E-03
Dichlorobenzene	2.2E-03
Formaldehyde	1.36E-01
Hexane	3.3
Toluene	.87
Cadmium	2.2E-03
Chromium	0.12
Manganese	1.32
Nickel	3.12
Arsenic	4.6 E-04
Beryllium	3.5E-04
Mercury	3.5E-04
Selenium	1.7E-03
Xylene	.31
Phenol	.08
Glycol Ethers	.47
Methanol	.05
Total	9.79

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of CO and NO_x is equal to or greater than 100 tons per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to limit their CO and NO_x emissions to less than Title V levels, therefore the source will be issued a FESOP.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants is less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

- (d) **Fugitive Emissions:**
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered 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 (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
All Combustion Units	1.9	7.5	0.6	5.4	83.2	99	1.81
Welding	30.95	30.95	-	-	-	-	4.56
Noncombustion Insignificant Activities	5	5	-	1.61	-	-	1.77
Total Emissions	37.85	43.45	0.6	7.01	83.2	99	8.14

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) **Fugitive Emissions**
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

The following federal rules are applicable to the source:

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, are not included in the permit for the boiler identified as SM 7567. Construction of this unit commenced prior to June 9, 1989.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit for this source.

State Rule Applicability - Entire Source

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

The source, which was constructed prior to 1968, has uncontrolled emissions of NO_x greater than 250 tons per year. However, pursuant to 326 2-8-4, emissions of NO_x are limited to less than one hundred (100) tons per year. Therefore, this source is not a major source for PSD.

326 IAC 2-6 (Emission Reporting)

Revisions to 326 IAC 2-6 (Emission Reporting) became effective March 27, 2004. The Permittee is no longer required to submit an emission statement; therefore, the emission statement is removed from the permit.

326 IAC 2-8-4 (FESOP)

The uncontrolled NO_x and CO emissions are more than 100 tons per year for this source. Therefore, a federally enforceable limit for NO_x and CO emissions shall be established for this source. The natural gas usage of the two (2) boilers, four (4) furnaces, and all insignificant activities shall be less than 1,980 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month, and the NO_x and CO emissions shall not exceed 100, and 84 pounds per million cubic feet of natural gas, respectively.

Compliance with the above limits, will limit the source wide NO_x and CO emissions to less than 100 tons per year each and will render 326 IAC 2-7 (Part 70) not applicable to this source.

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 Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

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

State Rule Applicability – Individual Facilities

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The one (1) boiler, identified as SM 7567, constructed in 1963, rated at 26.5 million British thermal units per hour, is subject to 326 IAC 6-2-3 because it was constructed in 1963. The PM limitation was calculated based on the following equation given in 326 IAC 6-2-3:

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

$$Pt = 50 \times 0.67 \times 65.0 / 76.5 \times (26.5)^{0.75} \times 1^{0.25} = 2.44 \text{ lb/MMBtu}$$

where:

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

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

capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

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

N = Number of stacks in fuel burning operation.

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

h = Stack height in feet

However, pursuant to 326 IAC 6-2-3(d), PM emissions for all facilities used for indirect heating purposes which were in operation on or before June 8, 1972 shall not exceed 0.8 pounds per million British thermal units. Therefore, the one (1) boiler (SM 7567) is limited to emissions of 0.8 pounds per million British thermal units.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) insignificant boiler, rated at 4.0 million British thermal units per hour is subject to 326 IAC 6-2-4 because it was installed in 1992. The PM emission limitations are based on the following equation given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

$$Pt = 1.09/(30.5)^{0.26} = 0.45 \text{ lb/MMBtu heat input}$$

where:

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

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. The total heat input capacity for the source, including the 4.0 million British thermal units per hour insignificant boiler, is 30.5 million British thermal units per hour.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

(a) Pursuant to 326 IAC 6-3-1, each of the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations are exempt from the particulate emission limitations of 326 IAC 6-3, because the potential particulate emissions from each welding station are less than five hundred fifty-one thousandths (0.551) pound per hour.

(b) Pursuant to 326 IAC 6-3-1, the insignificant surface coating operations are exempt from the particulate emission limitations of 326 IAC 6-3, because the operations use less than five (5) gallons of coating per day.

- (c) Pursuant to 326 IAC 6-3-2(e), the particulate matter (PM) emissions from the structural steel and bridge fabrication activities: cutting 200, 000 linear feet or less of one (1) inch plate or equivalent, grinding and machining operations, and manual grinding, shall not exceed the pounds per hour emission rate established by the equation:

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

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

Where:

P = process weight in tons/hr and

E = rate of emission in pounds per hour.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

The one (1) boiler, identified as SM 7567, firing No. 2 oil as backup fuel, rated at 26.5 million British thermal units per hour, is subject to the requirements of 326 IAC 7-1.1, since the potential to emit of SO₂ is greater than twenty-five (25) tons per year. Pursuant to this rule, SO₂ emissions from the combustion of No. 2 distillate fuel oil shall not exceed 0.5 pounds per million British thermal units heat input.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The insignificant surface coating operations are not subject to the requirements of 326 IAC 8-2-9, because the potential to emit of VOC for each facility is less than fifteen (15) pounds per day.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 (FESOP) are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) The boiler, SM 7567 has applicable compliance determination conditions as specified below:

Emission Unit	Parameter	Frequency	Range	Excursions and Exceedances
SM 7567 when burning fuel oil.	Visible Emissions	Daily	Normal-Abnormal	Response Steps

The compliance determination requirements applicable to this source are as follows:

- (a) The baghouse shall be in operation at all times the grinding and machining operations are taking place.

Recommendation

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

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

An application for the purposes of this review was received on February 19, 2007. Additional information was received on May 31, 2007, and June 28, 2007.

Conclusion

The operation of this stationary pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source shall be subject to the conditions of the attached FESOP renewal No. F 129-24331-00022.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Boiler SM 7567**

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

26.5

232.1

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	0.2	0.9	0.1	11.6	0.6	9.7

*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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Boiler SM 7567
 HAPs Emissions**

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.437E-04	1.393E-04	8.705E-03	2.089E-01	3.946E-04

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.804E-05	1.277E-04	1.625E-04	4.411E-05	2.437E-04

Methodology is the same as page 1.

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
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)

#2 Fuel Oil

Boiler SM 7567

Company Name: BWX Technologies, Inc. NOD
Address, City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
kgals/year

S = Weight % Sulfur

0.5

26.5

1658.142857

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	2.0	3.3	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	1.7	2.7	58.9	16.6	0.3	4.1

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

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

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

See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)

#2 Fuel Oil

HAPs Emissions

Boiler SM 7567

Company Name: BWX Technologies, Inc. NOD

Address, City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620

Permit Number: F 129-24331-00022

Reviewer: Timothy R. Pettifor

Date: 06/29/07

	HAPs - Metals				
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	4.64E-04	3.48E-04	3.48E-04	3.48E-04	1.04E-03

	HAPs - Metals (continued)			
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	3.48E-04	6.96E-04	3.48E-04	1.74E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emission Calculations
LPG-Propane - Industrial Boilers
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)

Boiler SM 7567

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
kgals/year

SO2 Emission factor = 0.10 x S
S = Sulfur Content = grains/100ft³

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 (0.10S)	NOx	VOC **TOC value	CO
Potential Emission in tons/yr	0.8	0.8	0.02	24.1	0.6	4.1

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC.

Methodology

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

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

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

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

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

**Appendix A: Emissions Calculations
Natural Gas Combustion Only**

Unit ID	Heat Input Capacity (MMBtu/hr)
SM-8252	63
SM 8251	74
SM 9425	66
SM 7495	61
Total	264

MM BTU/HR <100

**Furnaces SM 8252, SM 8251,
SM 9425, & SM7495**

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

264.0

2312.6

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	2.2	8.8	0.7	115.6	6.4	97.1

*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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Furnaces SM 8252, SM 8251,
 SM 9425, & 7494
 HAPs Emissions**

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.428E-03	1.388E-03	8.672E-02	2.081E+00	3.931E-03

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.782E-04	1.272E-03	1.619E-03	4.394E-04	2.428E-03

Methodology is the same as page 1.

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: Emission Calculations
LPG-Propane - Industrial Furnaces
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)
SM 8252, SM 8251, SM 9425, & SM 7494

Unit ID	Heat Input Capacity (MMBtu/hr)
SM-8252	63
SM 8251	74
SM 9425	66
SM 7495	61
Total	264

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity Potential Throughput SO₂ Emission factor = 0.10 x S
MMBtu/hr kgals/year S = Sulfur Content = 0.18 grains/100ft³

264.00 25274.75

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	0.6	0.6	0.0 (0.10S)	19.0	0.5 **TOC value	3.2
Potential Emission in tons/yr	7.6	7.6	0.2	240.1	6.3	40.4

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

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

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

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

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

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

**Appendix A: Emissions Calculations
Welding**

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS*				PM = PM10 (tons/year)	Mn (tons/year)	Ni (tons/year)	Cr (tons/year)	HAPS (tons/yr)
			PM = PM10 (lb pollutant/lb electrode)	Mn (lb pollutant/lb electrode)	Ni (lb pollutant/lb electrode)	Cr (lb pollutant/lb electrode)					
WELDING											
Submerged Arc (SAW)	9	8	0.00005				0.016	0.000	0.000	0.000	0.000
Metal Inert Gas (MIG)(GMAW)	20	5.5	0.024	0.00035	0.013	0.00053	11.563	0.169	1.430	0.0583	1.657
Stick (SMAW)	20	10	0.018	0.014	0.0005	0.000017	15.768	0.003	0.438	0.014892	0.456
Tungsten Inert Gas (TIG)(GTAW)	16	1	0.024	0.00035	0.013	0.00053	1.682	0.025	0.208	0.00848	0.241
Structural Steel and Bridge Fabrication	1	18.3	0.024	0.014	0.013	0.00053	1.924	1.122	1.042	0.0424816	2.207
Total Emissions (tons/year)							30.95	1.32	3.12	0.12	4.56

METHODOLOGY

The source uses a variety of welding rods. For MIG (GMAW) it uses E71T-1, E71T8-ni1/E71T11, and MIL EN82H. For TIG (GTAW) it uses ER80S-D2, MIL 105S-1, ER80S-G, ERNiCR-3 EN82, MIL 309 LHF, MIL 8N12H, ENiCrFE-7, ER80S-GMIL 308L, and MIL RN82H. For Stick (SMAW) it uses E70-A1, MIL 7018M, E8018-C3, MIL 11018M, and MIL10518-RC. For Structural Steel and Bridge Fabrication, the source could use any of the MIG, TIG, or Stick welding rods.

*Emission Factors are taken from Table 12.19-1 and Table 12.19-2 (1/95); SCC 3-09-054, 3-09-052, and 3-09-051.

Emissions (tons/yr) = Number of stations x Max. electrode consumption per station (lbs/hr) x Emission Factors (lb pollutant/lb electrode) x 8760 hr/yr x 1ton/ 2000 lbs.

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

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.0

35.0

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	0.0	0.1	0.0	1.8	0.1	1.5

*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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

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

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.679E-05	2.102E-05	1.314E-03	3.154E-02	5.957E-05

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.760E-06	1.927E-05	2.453E-05	6.658E-06	3.679E-05

Methodology is the same as page 1.

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: Emission Calculations
LPG-Propane - Insignificant Boiler
(Heat input capacity: > 0.3 MMBtu/hr and < 10 MMBtu/hr)

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity Potential Throughput SO2 Emission factor = 0.09 x S
MMBtu/hr kgals/year S = Sulfur Content = 0.18 grains/100ft³

4.00 382.95

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 (0.09S)	NOx	VOC **TOC value	CO
Potential Emission in tons/yr	0.1	0.1	0.0	2.9	0.1	0.4

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC.

Methodology

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

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

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

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

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

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

Insignificant Combustion Other than Boiler
Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

118.3

1036.5

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	1.0	3.9	0.3	51.8	2.9	43.5

*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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Insignificant Combustion Other than Boiler

HAPs Emissions

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.088E-03	6.219E-04	3.887E-02	9.329E-01	1.762E-03

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.591E-04	5.701E-04	7.256E-04	1.969E-04	1.088E-03

Methodology is the same as page 1.

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: Emission Calculations
LPG-Propane - Insignificant Combustion Other than Boiler
(Heat input capacity: > 0.3 MMBtu/hr and < 10 MMBtu/hr)

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

Heat Input Capacity Potential Throughput SO2 Emission factor = 0.09 x S
MMBtu/hr kgals/year S = Sulfur Content = 0.18 grains/100ft³

118.32 11327.97

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 (0.09S)	NOx	VOC **TOC value	CO
Potential Emission in tons/yr	0.5	0.5	0.0	15.0	0.6	2.1
	2.8	2.8	0.1	85.0	3.4	11.9

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC.

Methodology

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

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

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

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

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

Appendix A: Emissions Calculations

VOC and Particulate
From Surface Coating Operations
Insignificant Activities

Company Name: Bwx Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Permit Number: F 129-24331-00022
Reviewer: Timothy R. Pettifor
Date: 06/29/07

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
WAFA-24-083	10.52	54.04%	42.0%	12.0%	53.1%	29.23%	41.25	0.00200	2.69	1.27	0.10	2.51	0.46	0.87	4.33	50%
SC-1090-1	9.30	56.76%	43.5%	13.3%	48.6%	41.23%	10.00	0.00100	2.40	1.23	0.01	0.30	0.05	0.00	2.99	100%*
Btmastic 300M	10.72	17.40%	0.0%	17.4%	0.0%	74.10%	9.00	0.00050	1.87	1.87	0.01	0.20	0.04	0.09	2.52	50%
340 Gold Primer	14.02	83.50%	0.0%	83.5%	0.0%	67.50%	2.00	0.00050	11.71**	11.71	0.01	0.28	0.05	0.01	17.34	50%
2000 Thinner	7.23	100.00%	0.0%	100.0%	0.0%	0.00%	5.00	0.00050	7.23**	7.23	0.02	0.43	0.08	0.00	N/A	50%
#801 Semi-Gloss	12.60	13.80%	0.0%	13.8%	0.0%	77.10%	5.00	0.00400	1.74	1.74	0.03	0.83	0.15	0.48	2.26	50%
#4 Solvent	7.42	100.00%	0.0%	100.0%	0.0%	0.00%	1.25	0.00400	7.42**	7.42	0.04	0.89	0.16	0.00	N/A	50%
#858 Zinc Epoxy	25.24	35.90%	0.0%	35.9%	0.0%	64.10%	13.00	0.00100	9.06**	9.06	0.12	2.83	0.52	0.46	14.14	50%
#33 Thinner	7.41	100.00%	0.0%	100.0%	0.0%	0.00%	3.00	0.00100	7.41**	7.41	0.02	0.53	0.10	0.00	N/A	0%
Total Potential Emissions											0.37	8.81	1.61	1.90		

*Transfer Efficiency is 100% because SC-1090-1 is applied by brushing.

**This insignificant surface coating operation is not subject to the requirements of 326 IAC 8-2-9 because the potential to emit of VOC from each station is <15 pounds per day.

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)
- Particulate 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

Appendix A: Emission Calculations

HAP Emission Calculations

From Surface Coating Operations

Insignificant Activities

Company Name: BWX Technologies, Inc. NOD
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon,
Permit Number: F 129-24331-00022
Permit Reviewer: Timothy R. Pettifor
Date: 6/29/2007

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Phenol	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Phenol (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
WAFA-24-083	10.52	41.25	0.00200	0.00%	0.00%	0.00%	6.00%	0.00%	0.00	0.00	0.00	0.23	0.00
SC-1090-1	9.3	10.00	0.00100	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.04
Bitumastic 300 N	10.72	9.00	0.00050	35.00%	0.00%	5.00%	0.00%	5.00%	0.07	0.00	0.01	0.00	0.01
340 Gold Primer	14.02	2.00	0.00050	15.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00
2000 Thinner	7.23	5.00	0.00050	100.00%	0.00%	0.00%	0.00%	0.00%	0.08	0.00	0.00	0.00	0.00
#801 Semi-Glos	12.6	5.00	0.00400	0.00%	0.00%	0.00%	10.00%	0.00%	0.00	0.00	0.00	0.11	0.00
#4 Solvent	7.42	1.25	0.00400	0.00%	0.00%	0.00%	60.00%	0.00%	0.00	0.00	0.00	0.10	0.00
#858 Zinc Epoxy	25.24	13.00	0.00100	10.00%	60.00%	5.00%	0.00%	0.00%	0.14	0.86	0.07	0.00	0.00
#33 Thinner	7.41	3.000000	0.00100	0.00%	0.00%	0.00%	30.00%	0.00%	0.00	0.00	0.00	0.03	0.00
Total Potential Emissions									0.31	0.86	0.08	0.47	0.05
Total Potential Emissions Combined									1.77				

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/

Appendix A: Emission Summary

Company Name: BWX Technologies, Inc. NOD

Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620

Permit #: F 129-24331-00022

Reviewer: Timothy R. Pettifor

Date: 06/29/07

Uncontrolled Potential to Emit (tons/year)						
Process/ Emission Unit	PM	PM10	SO2	NOx	VOC	CO
Boiler (SM 7567)	1.7	2.7	58.9	24.1	0.6	9.7
Furnaces (SM 8252, 8251, 9425, & 7495)	7.6	8.8	0.7	240.1	6.4	97.1
Welding,	30.95	30.95	–	–	–	–
Insignificant Boiler	0.1	0.1	0	2.9	0.1	1.5
Other Insignificant Combustion	2.8	3.9	0.3	85	3.4	43.5
Surface Coating	1.9	1.9	–	–	1.61	–
Total	45.05	48.35	59.9	352.1	12.11	151.8

Limited Potential to Emit (tons/yr)						
Process/ Emission Unit	PM	PM10	SO2	NOx	VOC	CO
All Combustion Units	1.9	7.5	0.6	99	5.4	83.2
Welding,	30.95	30.95	–	–	–	–
Noncombustion Insignificant Activites	5	5	–	–	1.61	–
Total	37.85	43.45	0.6	99	7.01	83.2

99 tons of NOx is equivalent to 1,980 million cubic feet of natural gas.

Appendix A: HAP's Emmission Summary

Potential to Emit (tons/year)

Company Name: BWX Technologies, Inc. NOD

Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620

Permit #: F 129-24331-00022

Reviewer: Timothy R. Pettifor

Date: 06/29/07

Uncontrolled Potential to Emit (tons/year)																		
Process/ Emission Unit	Pb	Ben- zene	Dichloro- Benzene	Form- aldehyde	Hex- ane	Tol- uene	Cd	Cr	Mn	Ni	As	Be	Hg	Se	Xyl- ene	Phenol	Glycol Ethers	Meth- anol
Boiler (SM 7567)	1.0 E-03	2.4 E-04	1.40E-04	8.70E-03	2.1 E-01	3.9 E-04	3.5 E-04	3.4 E-04	7.0 E-04	3.5 E-04	4.6 E-04	3.5 E-04	3.5 E-04	1.7 E-03	—	—	—	—
Furnaces (SM 8252, 8251, 9425, & 7495)	5.8 E-04	2.4 E-03	1.40E-03	8.70E-02	2.1	3.9 E-03	1.3 E-03	1.6 E-03	4.4 E-04	2.4 E-03	—	—	—	—	—	—	—	—
Welding,	—	—	—	—	—	—	—	0.12	1.32	3.12	—	—	—	—	—	—	—	—
Insignificant Boiler	8.8 E-06	3.7 E-05	2.10E-05	1.31E-03	3.2 E-02	6.0 E-05	1.9 E-05	2.5 E-05	6.66 E-06	3.7 E-05	—	—	—	—	—	—	—	—
Other Insignificant Combustion	2.6 E-04	1.1 E-03	6.2 E-04	3.9 E-02	9.3 E-01	1.8 E-03	5.7 E-04	7.3 E-04	1.97 E-04	1.1 E-03	—	—	—	—	—	—	—	—
Surface Coating	—	—	—	—	—	0.86	—	—	—	—	—	—	—	—	0.31	0.08	0.47	0.05
Total	1.8 E-03	3.8 E-03	2.2 E-03	1.36E-01	3.3	0.87	2.2 E-03	0.12	1.32	3.12	4.6 E-04	3.5 E-04	3.5 E-04	1.7 E-03	0.31	0.08	0.47	0.05
																Total HAP's =	9.79	

Limited Potential to Emit (tons/year)																		
Process/ Emission Unit	Pb	Ben- zene	Dichloro- Benzene	Form- aldehyde	Hex- ane	Tol- uene	Cd	Cr	Mn	Ni	As	Be	Hg	Se	Xyl- ene	Phenol	Glycol Ethers	Meth- anol
All Combustion Units	5.0 E-04	2.1 E-03	1.20E-03	7.40E-04	1.8	3.4 E-04	1.1 E-03	1.4 E-03	3.8 E-04	2.1 E-03	—	—	—	—	—	—	—	—
Welding,	—	—	—	—	—	—	—	0.12	1.32	3.12	—	—	—	—	—	—	—	—
Surface Coating	—	—	—	—	—	0.86	—	—	—	—	—	—	—	—	0.31	0.08	0.47	0.05
Total	5.0 E-04	2.1 E-03	1.20E-03	7.40E-04	1.8	0.86	1.1 E-03	0.121	1.32	3.12	—	—	—	—	0.31	0.08	0.47	0.05
																Total HAP's =	8.14	