

**Part 70 Operating Permit Renewal
INDIANA DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT
OFFICE OF AIR QUALITY
AND VIGO COUNTY AIR POLLUTION CONTROL**

**United States Federal Penitentiary and Unicor Federal Prison Industry
4200 Bureau Road North and 4700 Bureau Road South
Terre Haute, Indiana 47808**

(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. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 2-7 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

Operation Permit No.: T167-17654-00019	
Issued by: //Original Signed By// George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: June 1, 2007 Expiration Date: June 1, 2012

SECTION A	SOURCE SUMMARY	4
A.1	General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]	
A.2	Part 70 Source Definition[326 IAC 2-7-1(22)]	
A.3	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]	
A.4	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]	
A.5	Part 70 Permit Applicability [326 IAC 2-7-2]	
SECTION B	GENERAL CONDITIONS	6
B.1	Definitions [326 IAC 2-7-1]	
B.2	Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability [326 IAC 2-7-7]	
B.5	Severability [326 IAC 2-7-5(5)]	
B.6	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.7	Duty to Provide Information [326 IAC 2-7-5(6)(E)]	
B.8	Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]	
B.9	Annual Compliance Certification [326 IAC 2-7-6(5)]	
B.10	Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]	
B.11	Emergency Provisions [326 IAC 2-7-16]	
B.12	Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]	
B.13	Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]	
B.14	Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]	
B.17	Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]	
B.18	Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]	
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]	
B.20	Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]	
B.21	Source Modification Requirement [326 IAC 2-7-10.5]	
B.22	Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]	
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]	
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]	
B.25	Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]	
SECTION C	SOURCE OPERATION CONDITIONS.....	17
	Emission Limitations and Standards [326 IAC 2-7-5(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]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Stack Height [326 IAC 1-7]	
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	Testing Requirements [326 IAC 2-7-6(1)]	
C.8	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.9	Compliance Requirements [326 IAC 2-1.1-11]	
	Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]	
C.10	Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]	
C.11	Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]	
C.12	Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]	
	Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]	
C.13	Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]	

C.14	Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]	
C.15	Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]	
C.16	Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]	
	Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	
C.17	Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]	
C.18	General Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]	
C.19	General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]	
	Stratospheric Ozone Protection	
C.20	Compliance with 40 CFR 82 and 326 IAC 22-1	
SECTION D.1	EMISSIONS UNIT OPERATION CONDITIONS.....	25
	Emission Limitations and Standards [326 IAC 2-7-5(1)]	
D.1.1	Volatile Organic Compound (VOC)	
D.1.2	Volatile Organic Compounds (VOC) [326 IAC 8-1]	
D.1.3	Preventive Maintenance Plan [326 IAC 2-7-5(13)]	
	Compliance Determination Requirements	
D.1.4	Volatile Organic Compounds (VOC)	
D.1.5	Particulate Matter (PM)	
	Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]	
D.1.6	Monitoring	
	Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	
D.1.7	Record Keeping Requirements	
D.1.8	Reporting Requirements	
SECTION D.2	EMISSIONS UNIT OPERATION CONDITIONS.....	27
	Emission Limitations and Standards [326 IAC 2-7-5(1)]	
D.2.1	Particulate emission limitations for sources of indirect heating [326 IAC 6-2-4]	
D.2.2	Sulfur Dioxide (SO ₂) [326 IAC 7-1.1-1][326 IAC 7-2-1]	
D.2.3	PSD Minor Limit [326 IAC 2-2]	
D.2.4	Preventive Maintenance Plan [326 IAC 2-7-5(13)]	
	Compliance Determination Requirements	
D.2.5	Sulfur Dioxide Emissions and Sulfur Content	
	Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]	
D.2.6	Visible Emissions Notations	
	Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc] [40 CFR 63, Subpart DDDDD]	
D.2.7	Record Keeping Requirements	
D.2.8	Reporting Requirements	
D.2.9	New Source Performance Standard (NSPS) Record Keeping Requirements [326 IAC 12]	
	New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]	
D.2.10	General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]	
D.2.11	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units_Requirements [40 CFR Part 60, Subpart Dc][326 IAC 12]	
CERTIFICATION FORM		34
EMERGENCY OCCURRENCE REPORT		35
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION.....		37
QUARTERLY FUEL OIL USAGE REPORT.....		38
QUARTERLY VOC REPORT		39
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT		40

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC). The information describing the source contained in conditions A.1 through A.4 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 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary maximum security prison consisting of boilers, surface coating booth, and a printing press operation.

Source Address:	4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address:	4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, Indiana 47808
General Source Phone Number:	812-238-1531
SIC Code:	9223
County Location:	Vigo
Source Location Status:	Maintenance attainment for Sulfur Dioxide Maintenance attainment for the 8-hour Ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Minor Source, Section 112 of the Clean Air Act

A.2 Part 70 Source Definition[326 IAC 2-7-1(22)]

This maximum security prison consists of a source with an on-site contractor:

- (a) United States Penitentiary, the primary operation, is located at, 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, Indiana; and
- (b) Unicor Federal Prison Industry, the supporting operation, is located at 4200 Bureau Road North, Terre Haute, Indiana.

IDEM and VCAPC determined in the United States Penitentiary and Unicor Federal Prison Industry's Part 70 Operating Permit (167-6106-00019), issued on June 17, 1999, that the Prison and on-site contractor are under the common control of United States Penitentiary. These two operations are considered one source due to contractual control. Therefore, the term A_{source} in this permit refers to both United States Penitentiary and Unicor Federal Prison Industry as one source.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) One (1) Surface Coating Booth located at the National Bus Center constructed in 1998, Capacity: one (1) automobile per twenty-four hour period, one (1) bus per forty-eight hour period, or fifteen (15) metal bars per hour. Method of application: automobile - HVLP, bus - HVLP, and metal bars - electrostatic, stack ID: Bus Center Surface Coating Booth stack, stack height: 37 feet, diameter: 3.5 feet, gas flow rate: 28,800 acfm, gas discharge temperature: unknown.
- (b) Four (4) Central Utility Plant natural gas fired boilers constructed in 2003, using No. 2 fuel oil for backup, identified as: B-UP-1 with a maximum heat input rate of 42 million (MM) Btu per hour, B-UP-2 with a maximum heat input rate of 42 million (MM) Btu per hour, B-UP-3 with a maximum heat input rate of 42 million (MM) Btu per hour, and B-UP-4 with a maximum heat input rate of 42 million (MM) Btu per hour. Emissions exhausting to the following stacks: 11,

12, 13, and 14, respectively.

- (c) Four (4) No. 2 fuel fired emergency generators constructed in 2003, identified as: EG-1 with a maximum heat input rate of 11.55 million (MM) Btu per hour, EG-2 with a maximum heat input rate of 11.55 million (MM) Btu per hour, EG-3 with a maximum heat input rate of 11.55 million (MM) Btu per hour, and EG-4 with a maximum heat input rate of 11.55 million (MM) Btu per hour. Emissions exhausting to the following stacks: 15, 16, 17, and 18, respectively.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) natural gas fired boilers, identified as Seg. Boiler #5 and Seg. Boiler #6, each with a maximum capacity of 2.52 million (MM) Btu per hour heat input, and exhausting to one (1) stack, stack ID: Seg. Stack. [326 IAC 6-2-4]
- (b) One (1), one color silk screen flexographic printing press with a maximum printing width of 12 inches and a maximum line speed of 7.5 feet per minute. [326 IAC 6-3-2]

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

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 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, 167-17654-00019, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ and VCAPC, 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, including any permit shield provided in 326 IAC 2-7-15, 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 2-7-7]

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

B.5 Severability [326 IAC 2-7-5(5)]

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 2-7-5(6)(D)]

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

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

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- (a) The Permittee shall furnish to IDEM, OAQ and VCAPC, within a reasonable time, any information that IDEM, OAQ and VCAPC 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 the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ and VCAPC 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 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (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 the "responsible official" 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) The "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and VCAPC 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 2-7-5(3); and

- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ and VCAPC may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

- (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 and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and VCAPC. IDEM, OAQ and VCAPC 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (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 .
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a 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 VCAPC 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

Vigo County Air Pollution Control phone: (812) 462-3433; fax: (812) 462-3447

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

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 2-7-5(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 the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ and VCAPC may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ and VCAPC 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 2-7 and any other applicable rules.
 - (g) 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.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, or VCAPC shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, or VCAPC has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, or VCAPC has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to 167-17654-00019 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

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 the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or VCAPC 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 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, or VCAPC 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 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, or VCAPC at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, or VCAPC may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and VCAPC and shall include the information specified in 326 IAC 2-7-4. 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and VCAPC 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 2-7 until IDEM, OAQ and VCAPC takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and VCAPC any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- and
- Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request.
[326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) 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 preconstruction approval required by 326 IAC 2-7-10.5 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

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

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 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and VCAPC in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at in 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 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(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 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) 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.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 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 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 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 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.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, and VCAPC 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, or VCAPC the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), 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.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][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 2-7-5(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 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.
- C.6 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.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]
- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
 - (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

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 the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ and VCAPC 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and VCAPC not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and VCAPC if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 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.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(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 2-7-5][326 IAC 2-7-6]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on July 2, 2004.
- (b) Upon direct notification by IDEM, OAQ and VCAPC that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [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 2-7-5] [326 IAC 2-7-6]

- (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;
 - (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 2-7-5][326 IAC 2-7-6]

- (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 the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and VCAPC on or before the date it is due.

C.18 General Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or VCAPC makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or VCAPC 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) If there is a reasonable possibility that a "project" as defined in 326 IAC 2-2-1 (qq) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" as defined in 326 IAC 2-2-1 (ee) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" as defined in 326 IAC 2-2-1(rr), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" as defined in 326 IAC 2-2-1 (qq) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

- (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and VCAPC 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" as defined in 326 IAC 2-2-1 (qq) at an existing emissions unit other than Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ :
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements

- (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx), for that regulated NSR pollutant, and
- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit other than Electric Utility Steam Generating Unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
- (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
- (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3).
- (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ and VCAPC. The general public may request this information from the IDEM, OAQ and VCAPC under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 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:

One (1) Surface Coating Booth located at the National Bus Center constructed in 1998, Capacity: one (1) automobile per twenty-four hour period, one (1) bus per forty-eight hour period, or fifteen (15) metal bars per hour. Method of application: automobile - HVLP, bus - HVLP, and metal bars - electrostatic, stack ID: Bus Center Surface Coating Booth stack, stack height: 37 feet, diameter: 3.5 feet, gas flow rate: 28,800 acfm, with dry filters for control of particulate matter overspray.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compound (VOC)

Any physical change or modification which may increase potential emissions from the surface coating operation, when coating buses and small automobiles and light duty trucks, shall require prior approval from OAQ and VCAPC before such change may occur.

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

- (a) Pursuant to 326 IAC 8-1-1(b) the permittee shall limit VOC emissions before controls to less than fifteen (15) pounds per day; therefore 326 IAC 8-2-9 does not apply.
- (b) Records to document compliance shall be maintained in accordance with Condition D.1.7.

Solvent sprayed from application equipment during cleanup or color changes from any operation shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for this facility and the dry filters.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ and VCAPC reserve the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.5 Particulate Matter (PM)

The particulate matter (PM) overspray from the National Bus Center surface coating booth shall be limited by the following:

- (a) The surface coating booth shall be operated in accordance with manufacturer's specifications.
- (b) The dry filters shall be in place at all times the surface coating booth is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.1.6 Monitoring

- (a) Inspections shall be performed once per day to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack while the booth is in operation. When overspray is evident the Permittee shall take reasonable response steps in accordance

with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftop and the nearby ground. When a noticeable change in overspray emission, or evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.2.
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day;
 - (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day; and
 - (6) The weight of VOCs emitted for each compliance period; and
 - (7) A quarterly summary of the information to document compliance with the surface coating limits shall be submitted to the following addresses 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.

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, IN 47807

- (b) To document compliance with Condition D.1.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- (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.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

- (a) Four (4) Central Utility Plant natural gas fired boilers constructed in 2003, using No. 2 fuel oil for backup, identified as B-UP-1, B-UP-2, B UP-3, and B-UP-4, with a maximum heat input rate of 42 million (MM) Btu per hour heat input each, and exhausting to stacks: 11, 12, 13, and 14, respectively.
- (b) Four (4) No. 2 fuel fired emergency generators constructed in 2003, identified as: EG-1, EG-2, EG-3, and EG-4, with a maximum heat input rate of 11.55 million (MM) Btu per hour each, and exhausting to stacks: 15, 16, 17, and 18, respectively.

(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 2-7-5(1)]

D.2.1 Particulate emission limitations for sources of indirect heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating) the particulate emissions from indirect heating facilities constructed after September 21, 1983 the four (4) Central Utility Plant boilers (boilers B-UP-1, B-UP-2, B-UP-3, and B-UP-4) shall be limited to 0.236 pounds per million (MM) Btu heat input.

This limitation is based on the following equation: $Pt=1.09/Q^{0.26}$, where Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu/hr) heat input. Q = total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input.

For these units, Q = 168 MMBtu/hr

D.2.2 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 four (4) Central Utility Plant boilers, using No. 2 fuel oil as backup, (total of 168 MMBtu per hour) and the four (4) oil-fueled emergency generators (total of 46.2 MMBtu per hour) shall not exceed five tenths (0.5) pounds per MMBtu heat input each. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.2.3 PSD Minor Limit [326 IAC 2-2]

Pursuant to Significant Permit Modification 167-16927-00019 issued on July 23, 2003 and revised by this permit the four boilers (B-UP-1, B-UP-2, B UP-3, and B-UP-4) as well as the four emergency generator (EG-1, EG-2, EG-3, and EG-4) shall not use more than 2,240 million "equivalent" cubic feet of natural gas per 12-consecutive month period, with compliance determined at the end of each month. This, combined with a limit of 217.52 pounds of SO₂ emitted per million equivalent cubic feet of natural gas, renders the requirements of 326 IAC 2-2 (PSD) not applicable to the power house operation.

For the purpose of determining "equivalent" million cubic feet the following conversions shall be used:

For natural gas burned in the boilers, 1 million "equivalent" cubic feet = 1 million cubic feet (base unit) natural gas.

For fuel oil burned in the boilers, 0.480 million "equivalent" cubic feet = one thousand gallons fuel oil.

For fuel oil burned in the emergency generator, 8.96 million "equivalent" cubic feet = one thousand gallons fuel oil.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.2.5 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 fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
 - (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 four (42.0) MMBtu per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either 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 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

- (a) Visible emission notations of the four (4) Central Utility Plant boiler stack exhausts (11, 12, 13, and 14) and the four (4) emergency generator stack exhausts (15, 16, 17, and 18), shall be performed once per day during normal daylight operations when using fuel oil and exhausting to the atmosphere. 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 or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc] [40 CFR 63, Subpart DDDDD]

D.2.7 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2 the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur

- dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A quarterly summary of the information to document compliance with Conditions D.2.3 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.2.9 New Source Performance Standard (NSPS) Record Keeping Requirements [326 IAC 12]

Pursuant to 326 IAC 12, the Permittee shall record and maintain records of the amounts of natural gas combusted in the boilers each day. This condition expires when the revisions made to 40 CFR 60 Subpart Dc, as amended on February 27, 2006, become effective as Indiana Law. This condition is not federally enforceable.

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.2.10 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the boilers (B-UP-1, B-UP-2, B-UP-3, and B-UP-4) except as otherwise specified in 40 CFR Part 60, Subpart Dc.

- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 47807

D.2.11 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc][326 IAC 12]

Pursuant to 40 CFR 60, Subpart Dc the Permittee shall comply with the provisions of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12 for Central Utility Plant boilers B-UP-1, B-UP-2, B-UP-3, and B-UP-4 as specified as follows.

§ 60.41c Definitions

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR--see Sec. 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference--see Sec. 60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO₂) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under Sec. 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference--see Sec. 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference--see Sec. 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sander dust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42c Standard For Sulfur Dioxide

(d) No owner or operator of an affected facility that combusts oil shall cause to be discharged

into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million BTU) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(h) For affected facilities firing distillate oil and having heat input capacities between 10 and 100 million BTU per hour, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier as described under 40 CFR 60.48c(f)(1).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

§ 60.43c Standard For Particulate Matter

(c) On and after the date on which the initial performance test is completed or required to be completed under Sec. 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

§ 60.44c Compliance And Performance Test Methods And Procedures For Sulfur Dioxide

(h) For affected facilities subject to 40 CFR 60.42c(h)(1) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under 40 CFR 60.48c(f)(1).

§ 60.46c Emission Monitoring For Sulfur Dioxide

(e) The monitoring requirements of paragraphs (a) and (d) of this section do not apply to affected facilities subject to 40 CFR 60.42c(h)(1) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under 40 CFR 60.48c(f)(1).

§ 60.48c Reporting And Recordkeeping Requirements

(d) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under 40 CFR 60.42c shall submit quarterly reports to the Administrator. The initial quarterly report shall be postmarked by the 30th day of the third month following the completion of the initial performance test. Each subsequent quarterly report shall be postmarked by the 30th day following the end of the reporting period.

(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under 40 CFR 60.43c shall keep records and submit quarterly reports as required above, including the following information:

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO₂ emission rate (ng/J or lb/million BTU), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period in the quarter; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1) of this section, as applicable. In addition to records of fuel supplier certifications, the quarterly report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter.

(f) Fuel supplier certification shall include the following information

(1) For distillate oil

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the

definition of distillate oil in 40 CFR 60.41c.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted each day. EPA Policy may allow for this information to be kept on a monthly basis.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

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

And

VIGO COUNTY AIR POLLUTION CONTROL

**PART 70 OPERATING PERMIT
CERTIFICATION FORM**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Part 70 Permit No.: T167-17654-00019

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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2215
Phone: 317-233-0178
Fax: 317-233-6865**

and

**VIGO COUNTY AIR POLLUTION CONTROL
103 South 3rd Street
Terre Haute, IN 47807
Phone: 812-462-3433
Fax: 812-462-3447**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Part 70 Permit No.: T167-17654-00019

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

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

The Permittee must notify the Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC), within four (4) business hours (**IDEM:** 1-800-451-6027 or 317-233-0178, ask for Compliance Section), (**VCAPC:** 812-462-3433); and

The Permittee must submit notice in writing or by facsimile within two (2) working days (**IDEM Facsimile Number:** 317-233-6865), (**VCAPC Facsimile Number:** 812-462-3447), 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
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A Certification is not required for this report.

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

And

VIGO COUNTY AIR POLLUTION CONTROL

**PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Part 70 Permit No.: T167-17654-00019
Facility: Central Utility Plant boilers (B-UP-1, B-UP-2, B-UP-3, B-UP-4)

<u>Report period</u> Beginning: _____ Ending: _____		
<u>Boiler Affected</u>	<u>Alternate Fuel</u>	<u>Days burning alternate fuel</u> <u>From</u> <u>To</u>

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: _____
Phone: _____
Date: _____

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report

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

And

VIGO COUNTY AIR POLLUTION CONTROL

**PART 70 OPERATING PERMIT
QUARTERLY FUEL OIL USAGE REPORT**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Part 70 Permit No.: T167-17654-00019
Facility: Central Utility Plant boilers (B-UP-1, B-UP-2, B-UP-3, B-UP-4)
Parameter: Fuel Oil Use
Limit: 1,600,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF AIR QUALITY
 And
 VIGO COUNTY AIR POLLUTION CONTROL
 QUARTERLY VOC REPORT**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
 Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
 Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
 Part 70 Permit No.: T167-17654-0019
 Facility: Surface Coating Booth
 Pollutant: VOC
 Limit: 15 pounds per day

Quarterly Report Month _____ Year _____

Day	Product	VOC lbs./gal	Gal/day	Total VOC lbs./day
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
Total VOC lbs./day for the entire month:				

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Mailing Address: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Part 70 Permit No.: T167-17654-00019

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<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
and Vigo County Air Pollution Control**

Addendum to the
Technical Support Document for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	United States Federal Penitentiary and Unicor Federal Prison Industry
Source Location:	4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
County:	Vigo
SIC Code:	9223
Operation Permit No.:	T167-17654-00019
Permit Reviewer:	Scott Sines

On April 2, 2007, Vigo County Air Pollution Control (VCAPC) had a notice published in the Terre Haute Tribune Star, Terre Haute, Indiana, stating that the United States Federal Penitentiary and Unicor Federal Prison Industry had applied for a Part 70 Operating Permit Renewal to operate a maximum security prison. The notice also stated that the Indiana Department of Environmental Management (IDEM) and VCAPC proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received on the draft permit. This notwithstanding, upon further review VCAPC has made the following changes to the Part 70 permit (additions in bold, deletions in ~~strikeout~~):

1. All occurrences of IDEM's mailing addresses have been updated in the permit. Any occurrences of the zip code 46204 have been revised to **46204-2251**, and all addresses have been revised to include a mail code (MC) as follows:

Asbestos Section:	MC 61-52 IGCN 1003
Compliance Branch:	MC 61-53 IGCN 1003
Permits Branch:	MC 61-53 IGCN 1003
Technical Support and Modeling Section:	MC 61-50 IGCN 1003

2. A grammatical change is made to Condition C.16(b) as shown below.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

- (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 ~~and~~ twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

**Indiana Department of Environmental Management
Office of Air Quality
and Vigo County Air Pollution Control**

**Technical Support Document (TSD) for a
Part 70 Operating Permit Renewal**

Source Description and Location

Source Name:	United States Federal Penitentiary and Unicor Federal Prison Industry
Source Location:	4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
County:	Vigo
SIC Code:	9223
Operation Permit No.:	T167-17654-00019
Permit Reviewer:	Scott Sines

Source Definition

This maximum security prison consists of a source with an on-site contractor:

- (a) United States Penitentiary, the primary operation, is located at, 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, Indiana; and
- (b) Unicor Federal Prison Industry, the supporting operation, is located at 4200 Bureau Road North, Terre Haute, Indiana.

IDEM and VCAPC have determined from the United States Penitentiary and Unicor Federal Prison Industry's Part 70 Operating Permit (167-6106-00019), issued on June 17, 1999, that the Prison and on-site contractor are under the common control of United States Penitentiary. These two operations are considered one source due to contractual control. Therefore, the term **Asource@** in this permit refers to both United States Penitentiary and Unicor Federal Prison Industry as one source.

Existing Approvals

The source was issued Part 70 Operating Permit No. T167-6106-00019 on June 17, 1999. The source has since received the following approvals:

- (a) First Administrative Amendment No. 167-12378-00019, issued on September 26, 2000, and
- (b) Second Administrative Amendment No. 167-14559-00019, issued on July 19, 2001, and
- (c) Significant Source Modification No. 167-15710-00019, issued on July 21, 2003, and
- (d) Significant Permit Modification No. 167-16927-00019, issued on August 7, 2003, and
- (e) Third Administrative Amendment No. 167-19464-00019, issued on June 28, 2004.

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO ₂	Maintenance Attainment
NO ₂	Attainment
8-hour Ozone	Maintenance Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Vigo County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Vigo 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 PM2.5 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.
- (c) Vigo County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 re-designating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, re-designating Lake County to attainment for the sulfur dioxide standard, and 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 fugitive emissions are not counted toward the determination of PSD applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	1.01
PM10	1.01
SO ₂	0.24
VOC	2.63
CO	11.14

Pollutant	Actual Emissions (tons/year)
NO _x	13.30
HAP	0.00

Emission Units

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

- (a) One (1) Surface Coating Booth located at the National Bus Center constructed in 1998, Capacity: one (1) automobile per twenty-four hour period, one (1) bus per forty-eight hour period, or fifteen (15) metal bars per hour. Method of application: automobile - HVLP, bus - HVLP, and metal bars - electrostatic, stack ID: Bus Center Surface Coating Booth stack, stack height: 37 feet, diameter: 3.5 feet, gas flow rate: 28,800 acfm, gas discharge temperature: unknown.
- (b) Four (4) Central Utility Plant natural gas fired boilers, constructed in 2003, using No. 2 fuel oil for backup, identified as: B-UP-1 with a maximum heat input rate of 42 million (MM) Btu per hour, B-UP-2 with a maximum heat input rate of 42 million (MM) Btu per hour, B-UP-3 with a maximum heat input rate of 42 million (MM) Btu per hour, and B-UP-4 with a maximum heat input rate of 42 million (MM) Btu per hour, and exhausting to stacks: 11, 12, 13, and 14, respectively.
- (c) Four (4) No. 2 fuel fired emergency generators, constructed in 2003, identified as: EG-1, with a maximum heat input rate of 11.55 million (MM) Btu per hour, EG-2 with a maximum heat input rate of 11.55 million (MM) Btu per hour, EG-3 with a maximum heat input rate of 11.55 million (MM) Btu per hour, and EG-4 with a maximum heat input rate of 11.55 million (MM) Btu per hour, and exhausting to stacks: 15, 16, 17, and 18, respectively.

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) natural gas fired boilers, identified as Seg. Boiler #5 and Seg. Boiler #6, each with a maximum capacity of 2.52 million (MM) Btu per hour heat input, and exhausting to one (1) stack, stack ID: Seg. Stack. [326 IAC 6-2-4]
- (b) One (1), one color silk screen flexographic printing press with a maximum printing width of 12 inches and a maximum line speed of 7.5 feet per minute. [326 IAC 6-3-2]
- (c) Space heaters, process heaters, or boilers using the following fuels. [326 IAC 6-2-4]
 - (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (2) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
 - (3) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (d) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (e) Combustion source flame safety purging on startup.

- (f) 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.
- (g) 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.
- (h) The following VOC and HAP storage containers:
 - 1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (j) Closed loop heating and cooling systems.
- (k) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (l) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (m) Asbestos abatement projects regulated by 326 IAC 14-10.
- (n) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (o) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (p) On-site fire and emergency response training approved by the department.
- (q) Gasoline generators not exceeding 110 horsepower.
- (r) Diesel generators not exceeding 1600 horsepower.
- (s) Stationary fire pumps.
- (t) Farm operations.

Enforcement Issues

There are no pending enforcement actions.

Emission Units and Pollution Control Equipment Removed From The Source

Boilers #1 - #3 have not been decommissioned via any permit mod. They are being decommissioned as part of this Title V renewal. Boilers #1, #2, #3 were tagged out by Scott Sines, VCAPC, at the request of Scott Blair, Chief of Utilities, United States Federal Penitentiary on 10/24/2006. Boilers #1, #2, #3 have been slated to have the asbestos abated and are to be removed from the old powerhouse. This was originally to have been accomplished in 2005 however the funding was removed from the Federal Penitentiary's budget due to other Federal budget priorities. These 3 boilers have been removed from the permit, tsd, and calculations, with the remaining sections of the permit being re-numbered.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Unrestricted Potential To Emit (tons/year)
PM	11.82
PM10	7.22
SO ₂	389.62
VOC	27.75
CO	74.86
NO _x	156.11

HAPs	Potential To Emit (tons/year)
Benzene	0.0016
Dichlorobenzene	0.00025
Formaldehyde	0.015
Hexane	0.37
Toluene	0.0007
Lead	0.00664
Cadmium	0.0022
Chromium	0.0022
Manganese	0.0044
Nickel	0.0022
Arsenic	0.00294
Beryllium	0.0022
Mercury	0.0022
Selenium	0.011
TOTAL	0.41

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO₂ and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (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 10

tons per year and the potential to emit of any combination of HAPs is less than 25 tons per year.

- (d) Fugitive Emissions
 Pursuant to 326 IAC 2-7-2(e), all fugitive emissions are included in determination of Part 70 applicability.

Emissions After Issuance

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	HAPs
Boilers B-UP-1, -2, -3, -4 (natural gas)	1.2	5.6	0.4	4.0	61.8	73.6	< 10 for single HAP and < 25 for total HAPs
Seg. Boilers 5 & 6	0.0	0.2	0.0	0.1	1.9	2.2	< 10 for single HAP and < 25 for total HAPs
Boilers B-UP-1, -2, -3, -4 (No. 2 fuel oil)	10.4	N/A	227.20	1.6	26.4	105.2	< 10 for single HAP and < 25 for total HAPs
Emergency generators, 500 hours total (No. 2 fuel oil, 4 generators)	1.42	1.42	16.42	1.42	11.16	48.71	< 10 for single HAP and < 25 for total HAPs
Unicor Paint Booth (worst case)	--	--	--	21.68	--	--	< 10 for single HAP and < 25 for total HAPs
Printing Press	--	--	--	0.55	--	--	< 10 for single HAP and < 25 for total HAPs
Total - Worst Case	11.82	7.22	244.02	27.75	74.86	156.11	< 10 for single HAP and < 25 for total HAPs

HAP	HAP Emissions (TPY) Natural Gas	HAP Emissions (TPY) Fuel Oil	Worst Case HAP Emissions (TPY)
Benzene	0.0016	--	0.0016
Dichlorobenzene	0.00025	--	0.00025
Formaldehyde	0.015	--	0.015
Hexane	0.37	--	0.37
Toluene	0.0007	--	0.0007
Lead	0.0001	0.00664	0.00664
Cadmium	0.000023	0.0022	0.0022
Chromium	0.00026	0.0022	0.0022
Manganese	0.000078	0.0044	0.0044
Nickel	0.00043	0.0022	0.0022
Arsenic	--	0.00294	0.00294
Beryllium	--	0.0022	0.0022
Mercury	--	0.0022	0.0022
Selenium	--	0.011	0.011
Total HAPs	0.39	0.036	0.41

Federal Rule Applicability Determination

- (a) The four (4) Central Utility Plant boilers (B-UP-1, B-UP-2, B-UP-3, and B-UP-4) are subject to the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units constructed after June 9, 1989, (40 CFR 60.40c, Subpart Dc which is incorporated by reference as 326 IAC 12.

Nonapplicable portions of the NSPS will not be included in the permit. Boilers B-UP-1, B-UP-2, B-UP-3, and B-UP-4 are subject to the following portions of Subpart Dc.

- (1) 40 CFR 60.41c
- (2) 40 CFR 60.42c(d)
- (3) 40 CFR 60.42c(h)
- (4) 40 CFR 60.42c(i)
- (5) 40 CFR 60.43c(c)
- (6) 40 CFR 60.43c(d)
- (7) 40 CFR 60.44c(h)
- (8) 40 CFR 60.46c(e)
- (9) 40 CFR 60.48c(d)
- (10) 40 CFR 60.48c(e)
- (11) 40 CFR 60.48c(f)
- (12) 40 CFR 60.48c(g)
- (13) 40 CFR 60.48c(i)

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the boilers described in this section except when otherwise specified in 40 CFR 60 Subpart Dc.

40 CFR 60, Subpart Dc was amended February 27, 2006 under Federal Register notice 71 FR 9884. However, pursuant to 326 IAC 1-1-3, the version of the rule referenced by 326 IAC 12 is the version in existence on July 1, 2005. Therefore, the amendments are not included in the state rules, and the boilers at this source are subject to both versions of the rule. All the requirements of 326 IAC 12 are the same as the requirements listed under Federal Rule Applicability except 40 CFR 60.48c(g).

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for 40 CFR 60.430, Subpart QQ are not included for the one (1) color silk screen flexographic printing press as that regulation applies to Rotogravure printing only.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for 40 CFR 63, Subpart DDDDD are not included for the four (4) boilers (B-UP-1, B-UP-2, B-UP-3, and B-UP-4) as the source is not a major source of HAPs.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for 40 CFR 63, Subpart ZZZZ are not included for the four (4) emergency generators (EG-1, EG-2, EG-3, and EG-4) as small power production facilities are specifically exempt from this subpart.
- (e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit for this source.

State Rule Applicability Determination

326 IAC 1-5-2 (Emergency Reduction Plans)

The source submitted an Emergency Reduction Plan (ERP) in January of 2000. The ERP was updated in July of 2004 due to a change from the old Powerhouse to the new Central Utility Plant. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source submitted a Preventive Maintenance Plan (PMP) in January of 2000. The PMP was updated in July of 2004 due to a change from the old Powerhouse to the new Central Utility Plant. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-2 (PSD Minor Limit)

Pursuant to Significant Permit Modification 167-16927-00019 issued on July 23, 2003 and revised by this permit the four boilers (B-UP-1, B-UP-2, B UP-3, and B-UP-4) as well as the four emergency generator (EG-1, EG-2, EG-3, and EG-4) shall not use more than 2,240 million "equivalent" cubic feet of natural gas per 12-consecutive month period, with compliance determined at the end of each month. This limit renders the requirements of 326 IAC 2-2 (PSD) not applicable to the power house operation, as SO₂ emissions will remain below 250 tons per year. This equates to a limit of 217.52 pounds of SO₂ emitted per million equivalent cubic feet of natural gas.

For the purpose of determining "equivalent" million cubic feet the following conversions shall be used:

For natural gas burned in the boilers, 1 million "equivalent" cubic feet = 1 million cubic feet (base unit) natural gas.

For fuel oil burned in the boilers, 0.480 million "equivalent" cubic feet = one thousand gallons fuel oil.

For fuel oil burned in the emergency generator, 8.96 million "equivalent" cubic feet = one thousand gallons fuel oil.

326 IAC 2-6 (Emission Reporting)

- (a) Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c).
- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and VCAPC on or before the date it is due.

326 IAC 3-7-4 (Fuel Oil Sampling, Analysis Methods)

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
 - (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; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the three (62.5) MMBtu per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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) This source is not located in the area of Vigo County referenced in 326 IAC 5-1-1(c)(8).

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), 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.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

- (a) The source is located in Vigo County.
- (b) The facilities listed in this permit are not specifically listed in 326 IAC 6.5-9-18.
- (c) The potentials to emit of PM and PM10 are each less than 100 tons per year.
- (d) Actual PM and PM10 emissions are each less than 10 tons per year.

Therefore 326 IAC 6.5 does not apply to this source.

326 IAC 6-2-4 (Particulate emissions limitations for sources of indirect heating)

- (a) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating) the particulate emissions from indirect heating facilities constructed after September 21, 1983 (Boilers B-UP-1, B-UP-2, B-UP-3, and B-UP-4) shall be limited to 0.236 pounds per million (MM) Btu heat input.

This limitation is based on the following equation: $Pt=1.09/Q^{0.26}$, where Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu/hr) heat input. Q = total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input (Q = 168 MMBtu/hr).

- (b) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating) the particulate emissions from indirect heating facilities constructed after September 21, 1983 (Seg. Boiler #5 and Seg. Boiler #6) shall be limited to 0.6 pounds per million (MM) Btu heat input.

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

- (a) The particulate matter (PM) overspray from the National Bus Center surface coating booth shall be limited by the following:
- (1) The surface coating booth shall be operated in accordance with manufacturer's specifications.
 - (2) The dry filters shall be in place at all times the surface coating booth is in operation.
- (b) The particulate matter (PM) emissions from Welding and Fabrication shall be limited by the following:
Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:
- $$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$
- (c) The particulate matter (PM) emissions from the one color flexographic printing press shall be controlled by a dry particulate filter, waterwash, or an equivalent control device.

326 IAC 6.5-9-18 (Particulate Matter Limitations)

326 IAC 6.5-9-18 will not apply to this source because boilers #1, #2, and #3 have been decommissioned and are longer operating at the source. Boilers #1, #2, #3 were tagged out by Scott Sines, VCAPC, at the request of Scott Blair, Chief of Utilities, United States Federal Penitentiary on 10/24/2006. These boilers were originally scheduled for decommissioning and removal in 2005, however this was delayed. The decommissioning has not taken place via any permit modification, but will take place as part of this Title V renewal.

326 IAC 7-1.1-2 (Sulfur Dioxide emission limits)

Pursuant to 326 IAC 7-1.1-2, all combustion units which have the potential to emit either 25 tons per year or 10 pounds per hour of Sulfur Dioxide must comply with either this provision or any unit specific limitations in 326 IAC 7-4-3 (for Vigo County). Boilers B-UP-1, B-UP-2, B-UP-3, and B-UP-4 shall comply with the specific limitation (while firing distillate oil) of 0.5 pounds of SO₂ per million BTU.

326 IAC 8-1-1 (Applicability)

326 IAC 8-1-1 exempts the source from the requirements of 326 IAC 8-2-9. VOC emissions before controls shall be less than fifteen (15) pounds per day. Records shall be maintained daily to document compliance with this condition.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating)

326 IAC 8-2-2 will not apply to this source because the automobiles and light duty trucks being coated are already assembled. This facility is not an assembly line type of operation.

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

326 IAC 8-2-9 does not apply to this source when coating metal bars. The permittee shall limit VOC emissions before controls to less than fifteen (15) pounds per day and shall comply with compliance determination and monitoring requirements as specified.

326 IAC 8-2-9 does not apply to the Bus Center when coating automobiles and light duty trucks as the production is less than 35 vehicles per day, nor does it apply to any other facility at the source, as no other facility at the source performs metal coating operations.

Solvent sprayed from application equipment during cleanup or color changes from any operation shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that

evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the paint booth is expected to comply with this requirement.

326 IAC 8-5-5 (Graphic arts operations)

Any physical change or modification which may increase potential emissions from the silk screen printing operation shall require prior approval from OAQ and VCAPC to determine applicability requirements of 326 IAC 8-5-5, before such change may occur.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 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 and VCAPC, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. 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 Determination Requirements applicable to this modification are as follows:

1. The four (4) Central Utility Plant boilers (B-UP-1, B-UP-2, B-UP-3, and B-UP-4) have applicable compliance monitoring condition as specified below:

Visible emission notations of the four (4) Central Utility Plant boiler stack exhausts (11, 12, 13, and 14) shall be performed once per day during normal daylight operations when using fuel oil and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. 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. 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. 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. If abnormal emissions are observed the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

2. The surface coating booth has applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. Weekly observations shall be made of the overspray from the surface coating booth stack while the booth is in operation. When overspray is evident the Permittee shall take reasonable response steps in accordance with

Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftop and the nearby ground. When a noticeable change in overspray emission, or evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.
- (c) Compliance with 326 IAC 8-1-1 when coating metal bars shall be documented by the Permittee by maintaining records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken daily and shall be complete and sufficient to establish compliance with the pounds VOC/gallon of coating less water usage limits.
 - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day when the coating contains “pounds of VOC/gallon of coating less water” greater than that specified for that particular type of coating;
 - (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day; and
 - (6) The weight of VOCs emitted for each compliance period; and
 - (7) A quarterly summary of the information to document compliance with the surface coating limits shall be submitted to the following address 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.

Conclusion and Recommendation

The operation of this maximum security prison shall be subject to the conditions of this Part 70 permit renewal 167-17654-00019.

Potential to Emit Calculation Summary

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Location: 4200 Bureau Road North, Terre Haute, Indiana 47808
County: Vigo
SIC Code: 9223
Operation Permit No.: T167-17654-00019
Permit Reviewer: Scott Sines
Date: 11/3/2006

	PM (Tons/yr)	PM10 (Tons/yr)	SO2 (Tons/yr)	NOx (Tons/yr)	VOC (Tons/yr)	CO (Tons/yr)
Boilers B-UP-1, -2, -3, -4 (natural gas)	1.2	5.6	0.4	73.6	4.0	61.8
Seg. Boilers 5 & 6 (natural gas only)	0.0	0.2	0.0	2.2	0.1	1.9
Boilers B-UP-1, -2, -3, -4 (No. 2 fuel oil)	10.4	N/A	373.2	105.2	1.6	26.4
Emergency generators, 500 hours total (No. 2 fuel oil, 4 generators)	1.42	1.42	16.42	48.71	1.42	11.16
Unicor Paint Booth (worst case)					21.68	
Printing Press					0.55	
Worst Case	11.82	7.22	389.62	156.11	27.75	74.86

HAP	HAP Emissions (TPY) Natural Gas	HAP Emissions (TPY) Fuel Oil	Worst Case HAP Emissions (TPY)
Benzene	0.0016		0.0016
Dichlorobenzene	0.00025		0.00025
Formaldehyde	0.015		0.015
Hexane	0.37		0.37
Toluene	0.0007		0.0007
Lead	0.0001	0.00664	0.00664
Cadmium	0.000023	0.0022	0.0022
Chromium	0.00026	0.0022	0.0022
Manganese	0.000078	0.0044	0.0044
Nickel	0.00043	0.0022	0.0022
Arsenic		0.00294	0.00294
Beryllium		0.0022	0.0022
Mercury		0.0022	0.0022
Selenium		0.011	0.011
Total HAPs	0.39	0.036	0.41

Limited PTE Calculation Summary

Source Name: United States Penitentiary and Unicor Federal Prison Industry
Source Location: 4200 Bureau Road North, Terre Haute, Indiana 47808
County: Vigo
SIC Code: 9223
Operation Permit No.: T167-17654-00019
Permit Reviewer: Scott Sines
Date: 11/3/2006

Limited PTE Calculations based on a limit of 1,600 kgal of fuel oil (for boilers):

	PM (Tons/yr)	PM10 (Tons/yr)	SO2 (Tons/yr)	NOx (Tons/yr)	VOC (Tons/yr)	CO (Tons/yr)
Boilers B-UP-1, -2, -3, -4 (natural gas)	1.2	5.6	0.4	73.6	4.0	61.8
Seg. Boilers 5 & 6 (natural gas only)	0.0	0.2	0.0	2.2	0.1	1.9
Boilers B-UP-1, -2, -3, -4 (No. 2 fuel oil) 1,600 kgal limit	6.4	N/A	227.20	64.00	1.09	16.00
Emergency generators, 500 hours (No. 2 fuel oil, 4 generators)	1.42	1.42	16.42	48.71	1.42	11.16
Unicor Paint Booth (worst case)					21.68	
Printing Press					0.55	
Limited PTE (Worst Case)	7.82	7.22	243.62	124.51	27.75	74.86

HAP	Worst Case HAP Emissions (TPY)	HAP Emissions (TPY) with limit of 1,600 kgals of fuel oil
Benzene	0.0016	0.0016
Dichlorobenzene	0.00025	0.00025
Formaldehyde	0.015	0.015
Hexane	0.37	0.37
Toluene	0.0007	0.0007
Lead	0.00664	0.00664
Cadmium	0.0022	0.0022
Chromium	0.0022	0.0022
Manganese	0.0044	0.0044
Nickel	0.0022	0.0022
Arsenic	0.00294	0.00294
Beryllium	0.0022	0.0022
Mercury	0.0022	0.0022
Selenium	0.011	0.011
Total HAPs	0.41	0.41

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

**Company Name: United States Penitentiary and Unicor Federal Prison Industry
 Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
 Permit Number: 167-17654-00019
 Reviewer: Scott Sines
 Date: 11/3/2006**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Total Potential Throughput MMCF/yr
42.0 each B-UP-1, B-UP-2, B-UP-3, B-UP-4	367.9	1471.68

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	0.3	1.4	0.1	18.4	1.0	15.5

*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

Total for all 4 boilers	1.20	5.60	0.40	73.60	4.00	62.00
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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

Small Industrial Boiler

HAPs Emissions

Company Name: United States Penitentiary and Unicor Federal Prison Industry

Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808

Permit Number: 167-17654-00019

Reviewer: Scott Sines

Date: 11/3/2006

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	3.863E-04	2.208E-04	1.380E-02	3.311E-01	6.255E-04

Total for all 4 boilers	1.55E-03	8.83E-04	5.52E-02	1.324	2.50E-03
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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	9.198E-05	2.024E-04	2.575E-04	6.990E-05	3.863E-04

Total for all 4 boilers	3.68E-04	8.08E-04	1.03E-03	2.80E-04	1.55E-03
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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)
#1 and #2 Fuel Oil

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address, City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

Heat Input Capacity Potential Throughput S = Weight % Sulfur
MMBtu/hr kgals/year 0.5

42.0 each 2628
B-UP-1, B-UP-2, B-UP-3, B-UP-4

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
2.0	71 (142.0S)	20.0	0.34	5.0	
Potential Emission in tons/yr	2.6	93.3	26.3	0.4	6.6

Total for all 4 boilers	10.40	373.20	105.20	1.60	26.40
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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. Condensable PM emission factor is 1.3 lb/kgal.

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

See page 4 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address, City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

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	7.36E-04	5.52E-04	5.52E-04	5.52E-04	1.66E-03

Total for all 4 boilers	2.94E-03	2.21E-03	2.21E-03	2.21E-03	6.64E-03
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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	5.52E-04	1.10E-03	5.52E-04	2.76E-03

Total for all 4 boilers	2.21E-03	4.40E-03	2.21E-03	1.10E-02
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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: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Small Industrial Boiler**

**Company Name: United States Penitentiary and Unicor Federal Prison Industry
 Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
 Permit Number: 167-17654-00019
 Reviewer: Scott Sines
 Date: 11/3/2006**

Heat Input Capacity Potential Throughput
 MMBtu/hr 2.52 MMBtu/hr each MMCF/yr

5.04 44.2
Seg Boilers 5 & 6 combined

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	0.2	0.0	2.2	0.1	1.9

*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 6 for HAPs emissions calculations.

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

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

	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	4.636E-05	2.649E-05	1.656E-03	3.974E-02	7.506E-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	1.104E-05	2.428E-05	3.091E-05	8.389E-06	4.636E-05

Methodology is the same as page 5.

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
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating - Emergency Generators (4)**

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity
MM Btu/hr

11.6 each

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.1	0.1	1.01	3.20	0.1	0.85	
Potential Emission in tons/yr	5.06	5.06	51.09	161.88	4.55	43.00

B. Emissions calculated based on output rating (hp)

Heat Input Capacity
Horsepower (hp)

Potential Throughput
hp-hr/yr

2030.0 each

17,782,800

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.0007	0.0007	0.0081	0.0240	0.0007	0.0055	
Potential Emission in tons/yr	6.22	6.22	71.93	213.39	6.27	48.90

Emergency Generator's PTE is based on 500 hours

Total 4 Emergency Generators @ 500 hrs	1.42	1.42	16.42	48.71	1.42	11.16
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Methodology

Potential Throughput (hp-hr/yr) = hp * 8760 hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Blue Max	7.5	12	568

INK VOCS					
Ink Name Press Id	Maxium Coverage (lbs/MMin ²)	Weight % Volatiles*	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
Aqua Print	6.0764	32%	100.00%	568	0.55

Total VOC Emissions =	0.55	Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 lbs

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

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

Limiting Potential Throughput (kgals/year)

#1 and #2 Fuel Oil

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address, City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
42.0 each B-UP-1, B-UP-2, B-UP-3, B-UP-4	1,600	

Emission Factor in lb/kgal	Pollutant				
	PM/PM10*	SO2	NOx	VOC	CO
2.0	71 (142.0S)	20.0	0.34	5.0	
Potential Emission in tons/yr each	1.6	56.8	16.0	0.3	4.0
Total for all 4 boilers	6.400	227.200	64.000	1.088	16.000

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. Condensable PM emission factor is 1.3 lb/kgal.

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

See page 10 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address, City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

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 each	7.36E-04	5.52E-04	5.52E-04	5.52E-04	1.66E-03

Total for all 4 boilers	2.94E-03	2.21E-03	2.21E-03	2.21E-03	6.62E-03
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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 each	5.52E-04	1.10E-03	5.52E-04	2.76E-03

Total for all 4 boilers	2.21E-03	4.42E-03	2.21E-03	1.10E-02
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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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006**

Buses

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	3.00000	0.021	4.76	5.00	0.32	7.56	1.38	0.25	14.56	75%
ACC (Concept Acrylic Urethane	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	3.00000	0.021	4.68	5.00	0.32	7.56	1.38	0.28	13.20	75%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	3.00000	0.021	4.12	4.10	0.26	6.20	1.13	0.27	9.81	75%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	3.00000	0.021	4.26	4.50	0.28	6.80	1.24	0.43	10.36	75%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	3.00000	0.021	4.56	4.60	0.29	6.96	1.27	0.40	12.62	75%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	3.00000	0.021	6.16	6.60	0.42	9.98	1.82	0.15	47.90	75%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	3.00000	0.021	4.73	4.63	0.29	7.00	1.28	0.45	13.81	75%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	3.00000	0.021	4.56	4.60	0.29	6.96	1.27	0.39	12.57	75%

State Potential Emissions

Worst case scenerio

0.42 9.98 1.82 2.61

Worst case scenerio X 2 guns

0.83 19.96 3.64

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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: United States Penitentiary and Unicor Federal Prison In
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

Passenger Cars

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	1.00000	0.167	4.76	5.00	0.84	20.04	3.66	0.67	14.56	75%
ACC (Concept Acrylic Urethane)	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	1.00000	0.167	4.68	5.00	0.84	20.04	3.66	0.74	13.20	75%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	1.00000	0.167	4.12	4.10	0.68	16.43	3.00	0.71	9.81	75%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	1.00000	0.167	4.26	4.50	0.75	18.04	3.29	1.14	10.36	75%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	1.00000	0.167	4.56	4.60	0.77	18.44	3.36	1.07	12.62	75%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	1.00000	0.167	6.16	6.60	1.10	26.45	4.83	0.39	47.90	75%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	1.00000	0.167	4.73	4.63	0.77	18.56	3.39	1.18	13.81	75%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	1.00000	0.167	4.56	4.60	0.77	18.44	3.36	1.03	12.57	75%

State Potential Emissions	Worst case scenerio	1.10	26.45	4.83	6.93
	Worst case scenerio X 2 guns	2.20	52.91	9.66	

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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: **United States Penitentiary and Unicor Federal Prison In**
 Address City IN Zip: **4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808**
 Permit Number: **167-17654-00019**
 Reviewer: **Scott Sines**
 Date: **11/3/2006**

Military Trucks

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	5.00000	0.021	4.76	5.00	0.53	12.60	2.30	0.42	14.56	75%
ACC (Concept Acrylic Urethane	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	5.00000	0.021	4.68	5.00	0.53	12.60	2.30	0.46	13.20	75%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	5.00000	0.021	4.12	4.10	0.43	10.33	1.89	0.45	9.81	75%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	5.00000	0.021	4.26	4.50	0.47	11.34	2.07	0.72	10.36	75%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	5.00000	0.021	4.56	4.60	0.48	11.59	2.12	0.67	12.62	75%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	5.00000	0.021	6.16	6.60	0.69	16.63	3.04	0.25	47.90	75%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	5.00000	0.021	4.73	4.63	0.49	11.67	2.13	0.74	13.81	75%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	5.00000	0.021	4.56	4.60	0.48	11.59	2.12	0.65	12.57	75%

State Potential Emissions

Worst case scenerio

0.69 16.63 3.04 4.35

Worst case scenerio X 2 guns

1.39 33.26 6.07

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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: United States Penitentiary and Unicor Federal Prison In
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006**

Vans

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	1.50000	0.167	4.76	5.00	1.25	30.06	5.49	1.00	14.56	75%
ACC (Concept Acrylic Urethane	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	1.50000	0.167	4.68	5.00	1.25	30.06	5.49	1.10	13.20	75%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	1.50000	0.167	4.12	4.10	1.03	24.65	4.50	1.06	9.81	75%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	1.50000	0.167	4.26	4.50	1.13	27.05	4.94	1.71	10.36	75%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	1.50000	0.167	4.56	4.60	1.15	27.66	5.05	1.60	12.62	75%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	1.50000	0.167	6.16	6.60	1.65	39.68	7.24	0.59	47.90	75%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	1.50000	0.167	4.73	4.63	1.16	27.84	5.08	1.78	13.81	75%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	1.50000	0.167	4.56	4.60	1.15	27.66	5.05	1.55	12.57	75%

State Potential Emissions	Worst case scenerio	1.65	39.68	7.24	10.39
	Worst case scenerio X 2 guns	3.31	79.36	14.48	

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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: United States Penitentiary and Unicor Federal Prison In
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006**

Security Package - Van package

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	0.75000	0.500	4.76	5.00	1.88	45.00	8.21	2.99	14.56	50%
ACC (Concept Acrylic Urethane	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	0.75000	0.500	4.68	5.00	1.88	45.00	8.21	3.31	13.20	50%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	0.75000	0.500	4.12	4.10	1.54	36.90	6.73	3.19	9.81	50%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	0.75000	0.500	4.26	4.50	1.69	40.50	7.39	5.12	10.36	50%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	0.75000	0.500	4.56	4.60	1.73	41.40	7.56	4.80	12.62	50%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	0.75000	0.500	6.16	6.60	2.48	59.40	10.84	1.75	47.90	50%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	0.75000	0.500	4.73	4.63	1.74	41.67	7.60	5.32	13.81	50%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	0.75000	0.500	4.56	4.60	1.73	41.40	7.56	4.63	12.57	50%

State Potential Emissions

Worst case scenerio

2.48 59.40 10.84 31.10

Worst case scenerio X 2 guns

4.95 118.80 21.68

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: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: United States Penitentiary and Unicor Federal Prison In
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006**

Security Package - Bus package

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
MTK Acrylic Urethane	8.4	56.66%	0.0%	56.7%	0.0%	32.69%	1.50000	0.250	4.76	5.00	1.88	45.00	8.21	2.99	14.56	50%
ACC (Concept Acrylic Urethane	8.7	53.74%	0.0%	53.7%	0.0%	35.41%	1.50000	0.250	4.68	5.00	1.88	45.00	8.21	3.31	13.20	50%
DCU 2021	8.0	51.52%	0.0%	51.5%	0.0%	42.00%	1.50000	0.250	4.12	4.10	1.54	36.90	6.73	3.19	9.81	50%
MP182 2K Urethane Surfacer	10.5	40.60%	0.0%	40.6%	0.0%	41.16%	1.50000	0.250	4.26	4.50	1.69	40.50	7.39	5.12	10.36	50%
MP170 Epoxy Primer	10.4	43.85%	0.0%	43.9%	0.0%	36.13%	1.50000	0.250	4.56	4.60	1.73	41.40	7.56	4.80	12.62	50%
DBC	8.3	74.27%	0.0%	74.3%	0.0%	12.87%	1.50000	0.250	6.16	6.60	2.48	59.40	10.84	1.75	47.90	50%
K36 (as a Surfacer)	11.2	42.21%	0.0%	42.2%	0.0%	34.23%	1.50000	0.250	4.73	4.63	1.74	41.67	7.60	5.32	13.81	50%
K36 (as a Sealer)	10.2	44.67%	0.0%	44.7%	0.0%	36.25%	1.50000	0.250	4.56	4.60	1.73	41.40	7.56	4.63	12.57	50%

State Potential Emissions

Worst case scenerio

2.48 59.40 10.84 31.10

Worst case scenerio X 2 guns

4.95 118.80 21.68

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: Emissions Calculations
Emissions Summary

Company Name: United States Penitentiary and Unicor Federal Prison Industry
Address City IN Zip: 4200 Bureau Road North and 4700 Bureau Road South, Terre Haute, IN 47808
Permit Number: 167-17654-00019
Reviewer: Scott Sines
Date: 11/3/2006

Process/Emission Unit	Potential to Emit After Issuance (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	HAPs
Boilers B-UP-1, -2, -3, -4 (natural gas)	1.2	5.6	0.4	4.0	61.8	73.6	< 10 for single HAP and < 25 for total HAPs
Seg. Boilers 5 & 6	0.0	0.2	0.0	0.1	1.9	2.2	< 10 for single HAP and < 25 for total HAPs
Boilers B-UP-1, -2, -3, -4 (No. 2 fuel oil)	10.4	N/A	227.20	1.6	26.4	105.2	< 10 for single HAP and < 25 for total HAPs
Emergency generators, 500 hours total (No. 2 fuel oil, 4 generators)	1.42	1.42	16.42	1.42	11.16	48.71	< 10 for single HAP and < 25 for total HAPs
Unicor Paint Booth (worst case)				21.68			< 10 for single HAP and < 25 for total HAPs
Printing Press				0.55			< 10 for single HAP and < 25 for total HAPs
Total - Worst Case	11.82	7.22	244.02	27.75	74.86	156.11	< 10 for single HAP and < 25 for total HAPs