

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
INDIANA DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT
OFFICE OF AIR QUALITY**

and

VIGO COUNTY AIR POLLUTION CONTROL

**Digital Audio Disc Corporation
1800 N. Fruitridge Avenue
Terre Haute, Indiana 47804**

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

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

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

Operation Permit No.: F167-15123-00032	
Issued by: Original Signed by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: February 1, 2005 Expiration Date: February 1, 2010

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary manufacturing plant for optical discs.

Authorized individual: Vice President and General Manager
Source Address: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
Mailing Address: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
General Source Phone: (812) 462-8100
SIC Code: 3652
Source Location Status: Vigo County
Maintenance Attainment for Sulfur Dioxide
Basic Nonattainment for 8-hour Ozone
Attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD or Emission Offset Rules;
Minor Source for Nonattainment NSR
Minor Source, Section 112 of the Clean Air Act

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

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

- a) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 001, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S19.
- b) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 002, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S13.
- c) Burnham Corp. boiler, installed in 1986, identified as Unit 003, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S4.
- d) Burnham Corp. boiler, installed in 1986, identified as Unit 004, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S3.
- e) Superior Boiler Works boiler, installed in 1992, identified as Unit 005, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 001.
- f) Superior Boiler Works boiler, installed in 1992, identified as Unit 006, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 002.
- g) Cleaver Brooks Corp. boiler, installed in 1997, with a maximum heat input capacity of 6.0 million BTU per hour, firing natural gas only, using no control, and exhausting to stack 012.

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

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

- a) Space heaters, process heaters, or boilers using the following fuels: Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) BTU per hour.
- b) The following VOC and HAP storage containers:
 - (a) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids; and
 - (b) Packaging lubricants and greases.
- c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- d) Closed loop heating and cooling systems.
- e) Exposure chambers ("towers", "columns"), for curing of ultraviolet inks and ultraviolet coatings where heat is the intended discharge.
- f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- g) Replacement or repair of electrostatic precipitators, bags in baghouse, and filters in other air filtration equipment.
- h) Paved and unpaved roads and parking lots with public access.
- i) Enclosed systems for conveying plastic raw materials and plastic finished goods.
- j) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers.
- k) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower including:
 - 1) Onan Corp. diesel generator, installed in 1983, identified as Unit 007, with a maximum capacity of 115 BHP, firing #2 fuel only, using no control, and exhausting to stack 007.
 - 2) Onan Corp. diesel generator, installed in 1986, identified as Unit 008, with a maximum capacity of 122 BHP, firing #2 fuel only, using no control, and exhausting to stack 008.
 - 3) Onan Corp. diesel generator, installed in 1992, identified as Unit 009, with a maximum capacity of 188 BHP, firing #2 fuel only, using no control, and exhausting to stack 009.
 - 4) Caterpillar Corp. diesel fire pump, installed in 1986, identified as Unit 010, with a maximum capacity of 200 BHP, firing #2 fuel only, using no control, and exhausting to stack 010.
 - 5) Onan Corp. diesel generator, installed in 1998, with a maximum capacity of 620 BHP, firing #2 fuel only, using no control, and exhausting to stack 013.
- l) Stationary fire pumps.

- m) Other insignificant activities with VOC and HAP emissions below 15 lbs/day (VOC), and below 5 lbs/day or 1 ton/year (single HAP) and below 12.5 lbs/day or 2.5 ton/year (combination HAPs) including:
- (1) Tank T1 - 550 gallon #2 fuel oil storage tank
 - (2) Tank T2 - 5,000 gallon #2 fuel oil storage tank
 - (3) Tank T3 - 5,000 gallon #2 fuel oil storage tank
 - (4) Five (5) DVD Offset Printing machines (0.783 lbs/day, total VOC)
 - (5) Three (3) DVD Silk Screen Printing machines (3.17 lbs/day, total VOC)
 - (6) Eleven (11) CD Silk Screen Printing machines (14.3 lbs/day, total VOC)
 - (7) Five (5) CD Offset Printing machines (0.521 lbs/day, total VOC)
 - (8) One (1) Photoresist Coater (11.3 lbs/day VOC)
 - (9) One (1) Jig Washer
 - (10) Three (3) seven gallon IPA storage tanks

Note: Total HAPs are 0.644 tons/yr (3.53 lbs/day), therefore, the above equipment is consider insignificant.

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

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

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

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

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

This permit 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.

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

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, 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 Vigo County Air Pollution Control (VCAPC).

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

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

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

- (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 "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 and VCAPC, 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.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

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

- (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 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ and VCAPC, may require to determine the compliance status of the source.

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

And

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

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) 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 PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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.13 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes 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;

IDEM

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

VCAPC

Telephone No.: 812-462-3433
Facsimile No.: 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 2-8-4(3)(C)(ii) and must contain the following:

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ and VCAPC, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ and 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 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- (h) Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 need to be included in this report.

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ 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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ 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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

And

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) 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.

- (2) If IDEM, OAQ and VCAPC upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and VCAPC take 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 needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

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

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

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b)

through (d) and makes such records available, upon reasonable request, to 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 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions 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 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, VCAPC or U.S. EPA is required.

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

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

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

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

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

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

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

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

C.3 Opacity [326 IAC 5-1]

Digital Audio Disc Corporation is not located within a five-tenths kilometer radius circle centered at UTM Coordinates Zone 16 East four hundred sixty-four and fifty-two hundredths kilometers North four thousand three hundred sixty-nine and twenty-one hundredths kilometers. Therefore, pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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

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

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

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

C.8 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.9 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

C.10 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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and 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 and VCAPC, 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.11 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

And

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

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

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

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

C.13 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.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4]
[326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and VCAPC upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM, OAQ and VCAPC of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ and VCAPC, 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 and VCAPC that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ and VCAPC may extend the retesting deadline.
- (c) IDEM, OAQ and VCAPC reserve 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

Indiana Department of Environmental Management

Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, Indiana 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- 1) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 001, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S19.
- 2) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 002, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S13.
- 3) Burnham Corp. boiler, installed in 1986, identified as Unit 003, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S4.
- 4) Burnham Corp. boiler, installed in 1986, identified as Unit 004, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S3.
- 5) Superior Boiler Works boiler, installed in 1992, identified as Unit 005, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 001.
- 6) Superior Boiler Works boiler, installed in 1992, identified as Unit 006, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 002.
- 7) Cleaver Brooks Corp. boiler, installed in 1997, with a maximum heat input capacity of 6.0 million BTU per hour, firing natural gas only, using no control, and exhausting to stack 012.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to NSPS [326 IAC 12][40 CFR 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated under 326 IAC 12, apply to the two (2) Superior boilers (Units 005 and 006) except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.1.2 Particulate Matter Limitation (PM) [326 IAC 6-2-3][326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating), the Kewanee Boilers are limited by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 1.39 \text{ lbs/MMBtu}$$

Where: C = Maximum Ground Level Concentration of PM (Assumed to be 50 µg/M³) = 50
Q = The total source capacity in MMBtu/hr. = 20.92
N = Number of stacks = 2
a = Plume rise factor. (A value of 0.67 is used for Q values < 1,000 MMBtu/hr) = 0.67
h = Stack height in feet. = 37

Using 326 IAC 6-2-3(e), the Kewanee Boilers (Units 001 and 002) shall not exceed 0.6 Lbs/MMBtu

- (b) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the boilers are limited by the equation $Pt=1.09/Q^{0.26}$, with Pt being the allowable particulate emission rate in pounds per million BTU and Q being the total plant wide boiler capacity at the time of installation. Thus, the calculated particulate limits by boilers are:

Burnham Boilers (Units 003 and 004) shall each not exceed 0.42 Lbs/MMBTU
Superior Boilers (Units 005 and 006) shall each not exceed 0.36 Lbs/MMBTU
Cleaver Brooks Boiler shall not exceed 0.35 Lbs/MMBTU

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 12-1][40 CFR 60, Subpart Dc]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

- (a) The SO₂ emissions from the Superior Boilers (Units 005 and 006) shall not exceed five tenths (0.5) pounds per million Btu heat input; or
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-4-3][326 IAC 7-2-1]

Pursuant to 326 IAC 7-4-3 (SO₂ Emissions Limitations) the SO₂ emissions from the Kewanee Boilers (Units 001 and 002) shall not exceed thirty-six hundredths (0.36) pounds per MMBtu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.5 Fuel Use Limitation [326 IAC 2-8]

- (a) The fuel oil usage for the boilers (Units 001, 002, 003, 004, 005, and 006) combined shall not exceed 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the natural gas limitation and the generator fuel oil limitation makes the requirements of 326 IAC 2-7 not applicable.
- (b) The natural gas usage for the boilers (Units 001, 002, 003, 004, 005, 006, and Cleaver Brooks) combined shall not exceed 706,000,000 cubic feet (706 million cubic feet) per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the fuel oil limitation and the generator fuel oil limitation makes the requirements of 326 IAC 2-7 not applicable.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities (Unit 001, 002, 003, 004, 005, 006, and the Clever Brooks boiler) and their control devices.

Compliance Determination Requirements

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate fuel oil sulfur compliance for the Superior Boilers (Units 005 and 006) utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance with the fuel oil sulfur limitation shall be determined utilizing one of the following options for the remaining boilers (Units 001 and 002).

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:

- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification;
or
- (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler(s), using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of each boiler (units 001, 002, 003, 004, 005, and 006) stack exhaust shall be performed once per shift during normal daylight operations when combusting 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.3 and D.1.4 the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (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, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

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

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

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per shift (when combusting fuel oil).
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records of the fuel oil and natural gas combusted in the boilers (Units 001, 002, 003, 004, 005, 006, and 007) during each calendar month. This data will then be combined with the 11 preceding months to show 12-month rolling totals.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.5, and the natural gas fired boiler certification, shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- 1) Onan Corp. diesel generator, installed in 1983, identified as Unit 007, with a maximum capacity of 115 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 007.
- 2) Onan Corp. diesel generator, installed in 1986, identified as Unit 008, with a maximum capacity of 122 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 008.
- 3) Onan Corp. diesel generator, installed in 1992, identified as Unit 009, with a maximum capacity of 188 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 009.
- 4) Caterpillar Corp. diesel fire pump, installed in 1986, identified as Unit 010, with a maximum capacity of 200 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 010.
- 5) Onan Corp. diesel generator, installed in 1998, with a maximum capacity of 620 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 013.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Fuel Use Limitation [326 IAC 2-8]

- (a) The fuel oil usage for the generators (Units 007, 008, 009, 010, and the 620 BHP generator) combined shall not exceed 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the natural gas and fuel oil limitations on the boilers make the requirements of 326 IAC 2-7 not applicable.
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight.
- (c) The Sulfur Dioxide emissions shall not exceed 0.5 pounds per million Btu (lbs./MMBtu).

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities (Unit 007, Unit 008, Unit 009, Unit 010, and the Onan Corp. diesel generator) and their control devices.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.3 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the fuel oil combusted in the generators (Units 007, 008, 009, 010, and the 620 BHP generator) during each calendar month. This data will then be combined with the 11 preceding months to show 12-month rolling totals.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
VIGO COUNTY AIR POLLUTION CONTROL**

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

Source Name: Digital Audio Disc Corporation
Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
FESOP No.: F167-15123-00032

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

and

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

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

Source Name: Digital Audio Disc Corporation
Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
FESOP No.: F167-15123-00032

This form consists of 2 pages

Page 1 of 2

9 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 317-233-5674, ask for Compliance Section and VCAPC:812-462-3433); and
☐ The Permittee must submit notice in writing or by facsimile within two (2) working days (IDEM: Facsimile Number: 317-233-5967 and VCAPC: 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 Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

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

A certification is not required for this report.

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

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

Source Name: Digital Audio Disc Corporation
Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
FESOP No.: F167-15123-00032

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

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

Signature:

Printed Name:

Title/Position:

Date:

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Digital Audio Disc Corporation
 Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 FESOP No.: F167-15123-00023
 Facility: Boilers (Units 001, 002, 003, 004, 005, and 006)
 Parameter: Fuel Oil Use
 Limit: 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2	% Sulfur
	This Month	Previous 11 Months	12 Month Total	Monthly avg.
Month 1				
Month 2				
Month 3				

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Digital Audio Disc Corporation
 Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 FESOP No.: F167-15123-00023
 Facility: Boilers (Units 001, 002, 003, 004, 005, 006, and Cleaver Brooks)
 Parameter: Natural Gas Use
 Limit: 706,000,000 cubic feet of natural gas per 12-consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Digital Audio Disc Corporation
 Source Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 Mailing Address: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
 FESOP No.: F167-15123-00023
 Facility: Generators (Units 007, 008, 009, 010, and the 620 BHP generator)
 Parameter: Fuel Oil Use
 Limit: 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2	% Sulfur
	This Month	Previous 11 Months	12 Month Total	Monthly avg.
Month 1				
Month 2				
Month 3				

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

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

Attach a signed certification to complete this report.

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

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

Source Name: Digital Audio Disc Corporation
 Source Address: 1800 North Fruitridge Ave, Terre Haute, Indiana 47804
 Mailing Address: 1800 North Fruitridge Ave, Terre Haute, Indiana 47804
 FESOP No.: F167-15123-00032

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

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

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

Source Background and Description

Source Name: Digital Audio Disc Corporation
Source Location: 1800 N. Fruitridge Avenue, Terre Haute, Indiana 47804
County: Vigo County
SIC Code: 3652
Operation Permit No.: F167-15123-00032
Permit Reviewer: Darren Woodward

Vigo County Air Pollution Control (VCAPC) and the Office of Air Quality (OAQ) have reviewed a FESOP application from Digital Audio Disc Corporation relating to the operation of a manufacturing plant for optical discs.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- a) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 001, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S19.
- b) Kewanee Boiler Corp. boiler, installed in 1983, identified as Unit 002, with a maximum heat input capacity of 10.462 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S13.
- c) Burnham Corp. boiler, installed in 1986, identified as Unit 003, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S4.
- d) Burnham Corp. boiler, installed in 1986, identified as Unit 004, with a maximum heat input capacity of 9.863 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack S3.
- e) Superior Boiler Works boiler, installed in 1992, identified as Unit 005, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 001.
- f) Superior Boiler Works boiler, installed in 1992, identified as Unit 006, with a maximum heat input capacity of 16.8 million BTU per hour, firing natural gas with #2 fuel oil for backup, using no control, and exhausting to stack 002.
- g) Cleaver Brooks Corp. boiler, installed in 1997, with a maximum heat input capacity of 6.0 million BTU per hour, firing natural gas only, using no control, and exhausting to stack 012.

Unpermitted Emission Units and Pollution Control Equipment

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

Insignificant Activities

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

- a) Space heaters, process heaters, or boilers using the following fuels: Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) BTU per hour. Including the following:
- b) The following VOC and HAP storage containers:
 - (a) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids; and
 - (b) Packaging lubricants and greases.
- c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- d) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.
- e) Closed loop heating and cooling systems.
- f) Exposure chambers ("towers", "columns"), for curing of ultraviolet inks and ultraviolet coatings where heat is the intended discharge.
- g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- h) Replacement or repair of electrostatic precipitators, bags in baghouse, and filters in other air filtration equipment.
- i) Paved and unpaved roads and parking lots with public access.
- j) Enclosed systems for conveying plastic raw materials and plastic finished goods.
- k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers.
- l) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower including:
 - 1) Onan Corp. diesel generator, installed in 1983, identified as Unit 007, with a maximum capacity of 115 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 007.
 - 2) Onan Corp. diesel generator, installed in 1986, identified as Unit 008, with a maximum capacity of 122 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 008.
 - 3) Onan Corp. diesel generator, installed in 1992, identified as Unit 009, with a maximum capacity of 188 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 009.
 - 4) Caterpillar Corp. diesel fire pump, installed in 1986, identified as Unit 010, with a maximum capacity of 200 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 010.
 - 5) Onan Corp. diesel generator, installed in 1998, with a maximum capacity of 620 BHP, firing #2 fuel oil only, using no control, and exhausting to stack 013.
- m) Stationary fire pumps.
- n) Other insignificant activities with VOC and HAP emissions below 15 lbs/day (VOC), and below 5 lbs/day or 1 ton/year (single HAP) and below 12.5 lbs/day or 2.5 ton/year (combination HAPs) including:

- (1) Tank T1 - 550 gallon #2 fuel oil storage tank (neg.)
- (2) Tank T2 - 5,000 gallon #2 fuel oil storage tank (neg.)
- (3) Tank T3 - 5,000 gallon #2 fuel oil storage tank (neg.)
- (4) Three (3) DVD Offset Printing machines (0.783 lbs/day, total VOC)
- (5) Two (2) DVD Silk Screen Printing machines (3.17 lbs/day, total VOC)
- (6) Nine (9) CD Silk Screen Printing machines (14.3 lbs/day, total VOC)
- (7) Two (2) CD Offset Printing machines (0.521 lbs/day, total VOC)
- (8) Silk Screen Washer (7.27 lbs/day VOC)
- (9) Solvent Tanks for Silk Screen Washer (9.00 lbs/day, total VOC)
- (10) Photoresist Coater (11.3 lbs/day VOC)
- (11) DVD Stamper Coater (3.50 lbs/day VOC)

Note: Total HAPs are 0.644 tons/yr (3.53 lbs/day), therefore, the above equipment is consider insignificant.

Existing Approvals

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

- (a) CP 167-3881-00032, issued on January 24, 1995,
- (b) CP 167-2527-00032, issued on February 9, 1995,
- (c) AA 167-4686-00032, issued on October 24, 1995.

Digital Audio Disc Corporation (DADC) was previously operating under a combined SSOA for internal and external combustion. Since they were complying with the lower (Table I) limits under each SSOA category, no specific document was required to be developed.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An administratively complete FESOP application for the purposes of this review was received on November 20, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Pages 1 through 6)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source 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."

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	Potential To Emit (tons/year)
PM	Less than 100
PM-10	Less than 100
SO ₂	Greater than 100 (Less than 250)
VOC	Less than 100
CO	Less than 100
NO _x	Greater than 100 (Less than 250)

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Xylene	0.004
MEK	0.636
Toluene	0.004
Total	0.644

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) 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, prior to application of Enforceable Limitations.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No emission data has been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Boilers ¹ (natural gas)	0.7	2.7	0.2	1.9	29.7	35.3	Neg
Boilers ² (fuel oil)	0.2	0.3	7.1	Neg	0.5	2.0	Neg
Generators ³ (fuel oil)	4.3	4.3	4.1	5.0	13.3	61.7	Neg
Insignificant Activities Combined	Neg	Neg	Neg	10.0	Neg	Neg	Neg
Total Potential Emissions	5.2	7.4	11.4	17.0	43.5	99.0	Neg

1 - All boilers using natural gas for combustion, combined, are limited to no more than 706 million cubic feet per 12-month period (rolled monthly). This limitation, when combined with the other fuel use limits, makes the requirements of 326 IAC 2-7 not applicable.

2 - All boilers using #2 fuel oil for combustion, combined, are limited to no more than 200 thousand gallons per 12-month period (rolled monthly). This limitation, when combined with the other fuel use limits, makes the requirements of 326 IAC 2-7 not applicable.

3 - All generators using #2 fuel oil for combustion, combined, are limited to no more than 200 thousand gallons per 12-month period (rolled monthly). This limitation, when combined with the other fuel use limits, makes the requirements of 326 IAC 2-7 not applicable.

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM-10	attainment
SO ₂	maintenance attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Vigo County has been designated as attainment or unclassifiable for ozone.
- (b) Vigo County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Federal Rule Applicability

- (a) The two (2) Superior Boilers (Units 005 and 006) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc).

Pursuant to 40 CFR 60.42c(d) (Standard for sulfur dioxide)

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.

Pursuant to 40 CFR 60.42c(h) (Standard for sulfur dioxide)

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).

Pursuant to 40 CFR 60.42c(i) (Standard for sulfur dioxide)

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.

Pursuant to 40 CFR 60.43c(c) Standard for particulate matter)

This provision does not apply because the Superior Boilers are less than the minimum capacity requirement of 30 million (MM) Btu per hour.

Pursuant to 40 CFR 60.44c(b) (Compliance and performance test methods and procedures for sulfur dioxide)

The first day of the initial performance test shall be scheduled within 30 days after the facility achieves the maximum production rate, but not more than 180 days after initial startup.

Pursuant to 40 CFR 60.44c(h) (Compliance and performance test methods and procedures for sulfur dioxide)

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).

Pursuant to 40 CFR 60.46c(e) (Emission monitoring for sulfur dioxide)

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).

Pursuant to 40 CFR 60.48c(a) (Reporting and recordkeeping requirements)

The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7. This notification shall include:

- (a) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (b) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c or 40 CFR 60.43c.
- (c) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
- (d) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of 40 CFR 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

Pursuant to 40 CFR 60.48c(b) (Reporting and recordkeeping requirements)

The owner or operator of each affected facility subject to the SO₂ emission limits of 40 CFR 60.42c, or the PM or opacity limits of 40 CFR 60.43c, shall submit to the IDEM, OAQ the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of 40 CFR 60.

Pursuant to 40 CFR 60.48c(d) (Reporting and recordkeeping requirements)

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 IDEM, OAQ. 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.

Pursuant to 40 CFR 60.48c(e) (Reporting and recordkeeping requirements)

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:

- (a) Calendar dates covered in the reporting period.
- (b) 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.
- (c) 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.

Pursuant to 40 CFR 60.48c(f) (Reporting and recordkeeping requirements)

Fuel supplier certification shall include the following information: (for distillate oil)

1. The name of the oil supplier; and
2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.

Pursuant to 40 CFR 60.48c(g) (Reporting and recordkeeping requirements)

The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted each day.

Pursuant to 40 CFR 60.48c(i) (Reporting and recordkeeping requirements)

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.

The two (2) Kewanee Boilers and the two (2) Burnham Boilers are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), due to the date of construction (construction commenced before June 9, 1989). The Cleaver Brooks Boiler is not subject to the requirements due to the maximum capacity (the Cleaver Brooks Boiler is less than the minimum capacity of 10 MMBtu/hr).

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any criteria pollutant.

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

Pursuant to this rule, the following fuel usage limits shall apply:

- (a) The fuel oil usage for the boilers (Units 001, 002, 003, 004, 005, and 006) combined shall not exceed 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the natural gas limitation and the generator fuel oil limitation makes the requirements of 326 IAC 2-7 not applicable.

- (b) The natural gas usage for the boilers (Units 001, 002, 003, 004, 005, 006, and Cleaver Brooks) combined shall not exceed 706,000,000 cubic feet (706 million cubic feet) per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the fuel oil limitation and the generator fuel oil limitation makes the requirements of 326 IAC 2-7 not applicable.
- (c) The fuel oil usage for the generators (Units 007, 008, 009, 010, and the 620 BHP generator) combined shall not exceed 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the natural gas and fuel oil limitations on the boilers make the requirements of 326 IAC 2-7 not applicable.

326 IAC 5-1 (Visible Opacity Limitations)

Digital Audio Disc Corporation is not located within a five-tenths kilometer radius circle centered at UTM Coordinates Zone 16 East four hundred sixty-four and fifty-two hundredths kilometers North four thousand three hundred sixty-nine and twenty-one hundredths kilometers. Therefore, 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.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2 (Particulate Limitations)

Since Vigo County remains listed under 326 IAC 6-1-7, all sources within it might be subject to the requirements of 326 IAC 6-1-2. However, because DADC is not specifically listed in 326 IAC 6-1-13 and does not have either potential emissions of particulate matter above one hundred (100) tons per year, nor actual emissions above ten (10) tons per year, they are not subject to this rule.

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

All of the boilers DADC operates are subject to the requirements of 326 IAC 6-2-4. This rule sets particulate matter emission limitations based on the total source wide boiler capacity. The formula for this is: $Pt = 1.09/Q^{0.26}$ with Pt being the particulate matter limit in pounds per million BTU and Q being the cumulative total capacity. The following table describes the specific limitations.

Boiler Description	Date Installed	Individual Capacity (MMBTU/Hr)	Cumulative Capacity (MMBTU/Hr)	PM Limit (Lbs/MMBTU)
Kewanee Boilers (2)	1983	10.46	20.92	0.49
Burnham Boilers (2)	1986	9.86	40.64	0.42
Superior Boilers (2)	1992	16.80	74.24	0.36
Cleaver Brooks Boiler (1)	1997	6.00	80.24	0.35

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

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, see below). Therefore, the two (2) Burnham Boilers and the two (2) Superior Boilers shall comply with this provision. The potential to emit (PTE) from the Cleaver Brooks Boiler is less than the 25 tons per year and 10 pounds per hour thresholds. It also does not have the capability of combusting #2 fuel oil. The specific limitation (while firing distillate oil) is 0.5 pounds of SO₂ per million BTU.

326 IAC 7-4-3 (Vigo County Sulfur Dioxide emission limits)

The two (2) Kewanee Boilers are specifically listed under 326 IAC 7-4-3. They have a limitation of 0.36 pounds of SO₂ per million BTU which replaces the limitation from 326 IAC 7-1.1-2 (above).

326 IAC 8 (VOC emission limitations)

326 IAC 8 does not apply to the printing operations because the operations are offset and have a potential to emit less than 25 tons per year.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. The boilers capable of combusting fuel oil (2 Kewanee Boilers, 2 Burnham Boilers, and 2 Superior Boilers) have applicable compliance monitoring conditions as specified below:
 - (a) Once per shift, visible emissions notations of the boiler stacks shall be performed during normal daylight operations when burning #2 fuel oil. A trained employee will 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary in order to ensure compliance with the applicable opacity standard (326 IAC 5-1) and the applicable particulate emission limitations for source of indirect heating (326 IAC 6-2).

Conclusion

The operation of this manufacturing plant for optical discs shall be subject to the conditions of the attached proposed **(FESOP No.: F167-15123-00032)**.

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

Addendum to the
Technical Support Document for Federally Enforceable State Operating Permit
(FESOP)

Source Background and Description

Source Name: Digital Audio Disc Corporation
Source Location: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
County: Vigo
SIC Code: 3652
Operation Permit No.: F167-15123-00032
Permit Reviewer: Darren Woodward

On April 29, 2004, Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) had a notice published in the Tribune Star, Terre Haute, Indiana, stating that Digital Audio Disc Corporation (DADC) had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a stationary manufacturing plant for optical discs. The notice also stated that 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.

On May 28, 2004, DADC submitted comments on the proposed FESOP. The summary of the comments is as follows:

Comment 1:

DADC requested that the Authorized Official (Condition A.1) be identified by title only, "Vice President and General Manager".

Response to Comment 1:

This change will be incorporated into the final FESOP.

Authorized individual: ~~Michael Mitchell~~, Vice President and General Manager

Comment 2:

DADC requested removal of paragraphs (h), (i), (j), (k), and (l) from Condition A.2 (Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]). The mentioned paragraphs regard emergency generators that have rated capacities less than 1,600 HP, and should be considered insignificant activities (Condition A.3).

Response to Comment 2:

IDEM, OAQ and VCAPC have agreed that paragraphs (h), (i), (j), (k), and (l) should be considered insignificant activities (Condition A.3).

Conditions A.2 and A.3 will be changed to the following:

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

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

- ~~(h) Onan Corp. diesel generator, installed in 1983, identified as Unit 007, with a maximum capacity of 115 BHP, firing #2 fuel only, using no control, and exhausting to stack 007.~~
- ~~(i) Onan Corp. diesel generator, installed in 1986, identified as Unit 008, with a maximum capacity of 122 BHP, firing #2 fuel only, using no control, and exhausting to stack 008.~~
- ~~(j) Onan Corp. diesel generator, installed in 1992, identified as Unit 009, with a maximum capacity of 188 BHP, firing #2 fuel only, using no control, and exhausting to stack 009.~~
- ~~(k) Caterpillar Corp. diesel fire pump, installed in 1986, identified as Unit 010, with a maximum capacity of 200 BHP, firing #2 fuel only, using no control, and exhausting to stack 010.~~
- ~~(l) Onan Corp. diesel generator, installed in 1998, with a maximum capacity of 620 BHP, firing #2 fuel only, using no control, and exhausting to stack 013.~~

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

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

- k) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower including:
 - 1) **Onan Corp. diesel generator, installed in 1983, identified as Unit 007, with a maximum capacity of 115 BHP, firing #2 fuel only, using no control, and exhausting to stack 007.**
 - 2) **Onan Corp. diesel generator, installed in 1986, identified as Unit 008, with a maximum capacity of 122 BHP, firing #2 fuel only, using no control, and exhausting to stack 008.**
 - 3) **Onan Corp. diesel generator, installed in 1992, identified as Unit 009, with a maximum capacity of 188 BHP, firing #2 fuel only, using no control, and exhausting to stack 009.**
 - 4) **Caterpillar Corp. diesel fire pump, installed in 1986, identified as Unit 010, with a maximum capacity of 200 BHP, firing #2 fuel only, using no control, and exhausting to stack 010.**
 - 5) **Onan Corp. diesel generator, installed in 1998, with a maximum capacity of 620 BHP, firing #2 fuel only, using no control, and exhausting to stack 013.**

Comment 3:

DADC requests the following changes within Condition A.3 (Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]):

- (a) Paragraph (a): DADC suggest that the water heater not be singled out for description as it is a very minor emission unit. The general description of this category of source should be sufficient.
- (b) Paragraph (d): DADC suggest this be deleted since the only brazing, cutting, soldering or welding activities are minor, non-production activities associated with maintenance and as such would be

classified as "trivial activities" rather than "insignificant activities".

- (c) Paragraph (n): DADC request that the list of insignificant VOC sources (subparagraphs 4 - 11) be modified to identify additional insignificant emission units and to eliminate others. The units that should be eliminated, since they are either no longer at our facility or they have no air emissions, include the silkscreen washer, the solvent tanks for the silkscreen washer and the DVD stamper coater. DADC proposes that the list be modified to read as follows:

- (4) Five (5) DVD Offset Printing machines.
- (5) Three (3) DVD Silk Screen Printing Machines.
- (6) Eleven (11) CD Silk Screen Printing Machines.
- (7) Five (5) CD Offset Printing Machines.
- (8) One (1) photoresist coater.
- (9) One (1) Jig Washer
- (10) Three (3) seven gallon IPA storage tanks

Response to Comment 3:

- (a) Paragraph (a) will be changed to the following:

Space heaters, process heaters, or boilers using the following fuels: Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) BTU per hour. ~~Including the following:~~

~~(a) Lochinvar Corp. water heater with a heat input capacity of 0.3 MMBTU/hr.~~

- (b) Pursuant to 326 IAC 2-7-1(40)(E)(iii), paragraph (d) will be deleted and the following paragraphs re-lettered.

~~d) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.~~

- (C) Paragraph (n) (now relettered as m) will be changed to the following:

- (1) Tank T1 - 550 gallon #2 fuel oil storage tank
- (2) Tank T2 - 5,000 gallon #2 fuel oil storage tank
- (3) Tank T3 - 5,000 gallon #2 fuel oil storage tank
- (4) ~~Three (3)~~ **Five (5)** DVD Offset Printing machines (0.783 lbs/day, total VOC)
- (5) ~~Two (2)~~ **Three (3)** DVD Silk Screen Printing machines (3.17 lbs/day, total VOC)
- (6) ~~Nine (9)~~ **Eleven (11)** CD Silk Screen Printing machines (14.3 lbs/day, total VOC)
- (7) ~~Two (2)~~ **Five (5)** CD Offset Printing machines (0.521 lbs/day, total VOC)
- (8) ~~Silk Screen Washer (7.27 lbs/day VOC)~~ One (1) Photoresist Coater (11.3 lbs/day VOC)
- (9) ~~Solvent Tanks for Silk Screen Washer (9.00 lbs/day, total VOC)~~ **One (1) Jig Washer**
- (10) ~~Photoresist Coater (11.3 lbs/day VOC)~~ **Three (3) seven gallon IPA storage tanks**
- (11) ~~DVD Stamper Coater (3.50 lbs/day VOC)~~

Comment 4:

DADC request that Condition C.2(b) (Overall Source Limit [326 IAC 2-8]) be removed from the permit. This condition sets a facility wide PM limit of 100 tons per year pursuant to 326 IAC 2-3, Emission Offset. PM is not a regulated pollutant anymore, and in any event the emission offset rule would not be applicable. The limited PTE for PM₁₀ is restricted to less than 100 tons per year, which is necessary to be below Title V major source thresholds.

Response to Comment 4:

Condition C.2(b) shall be replaced with the following language:

- ~~(b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.~~
- (b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

Comment 5:

DADC request that Condition C.14 (Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]) be removed from the permit. This requirement only applies to sources with a Potential to Emit greater than 100 tons per year of any criteria pollutant. The FESOP permit itself limits the PTE to less than 100 tons per year for each of the criteria pollutants, and therefore the requirements of 326 IAC 1-5-2 and 1-5-3 do not apply.

Response to Comment 5:

The Particulate Matter emissions are less than 100 tons per year, therefore, this condition does not apply and will be removed from the permit. The following conditions in Section C will be renumbered.

~~C.14 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 shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.~~
- ~~(b) These ERPs shall be submitted for approval to:~~

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015~~

~~And~~

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

~~within ninety (90) days from the date of issuance of this permit.~~

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

- ~~(c) If the ERP is disapproved by IDEM, OAQ and VCAPC, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.~~
- ~~(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.~~

- (e) ~~Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.~~
- (f) ~~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]~~

Comment 6:

DADC had requested that the Kewanee Boilers (due to their construction date) be applicable to 326 IAC 6-2-2, instead of 326 IAC 6-2-4.

Response to Comment 6:

DADC, VCAPC, and IDEM are in agreement that 326 IAC 6-2-3 (not 326 IAC 6-2-2 or 326 IAC 6-2-4) is applicable to the Kewanee Boilers. The Kewanee Boilers were constructed prior to September 21, 1983, therefore, Condition D.1.2 will be revised to the following:

D.1.2 Particulate Matter Limitation (PM) [326 IAC 6-2-3][326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating), the Kewanee Boilers are limited by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 1.39 \text{ Lbs/MMBtu}$$

Where: C = Maximum Ground Level Concentration of PM (Assumed to be 50 µg/M³) = 50
Q = The total source capacity in MMBtu/hr. = 20.92
N = Number of stacks = 2
a = Plume rise factor. (A value of 0.67 is used for Q values < 1,000 MMBtu/hr) = 0.67
h = Stack height in feet. = 37

~~Thus, the calculated particulate limit for the Kewanee Boilers is:~~

Using 326 IAC 6-2-3(e), the Kewanee Boilers (Units 001 and 002) shall not exceed 0.6 Lbs/MMBtu.

- (b) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the boilers are limited by the equation $Pt=1.09/Q^{0.26}$, with Pt being the allowable particulate emission rate in pounds per million BTU and Q being the total plant wide boiler capacity at the time of installation. Thus, the calculated particulate limits by boilers are:

~~Kewanee Boilers (Units 001 and 002) shall each not exceed 0.49 Lbs/MMBTU
Burnham Boilers (Units 003 and 004) shall each not exceed 0.42 Lbs/MMBTU
Superior Boilers (Units 005 and 006) shall each not exceed 0.36 Lbs/MMBTU
Clever Brooks Boiler shall not exceed 0.35 Lbs/MMBTU~~

Comment 7:

Condition D.1.3, D.1.4, and D.1.5, Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1][326 IAC 7-4-3][326 IAC 7-2-1][326 IAC 12-1][40 CFR 60, Subpart Dc], these conditions include emission limits for the boilers when combusting distillate fuel oil. The limits are found in the NSPS standard (for the Superior boilers), in 326 IAC 7-4-3 (for the Kewanee boilers) and in 326 IAC 7-1.1-1 (for the Burnham boilers). The condition related to the Burnham boilers (Condition D.1.4) should be removed. These requirements apply to “facilities” not otherwise subject to a specific emission limit and which have a Potential to Emit SO₂ of 25 tons per year or 10 pounds per hour. The PTE for each of these units is less than 10 pounds per hour of SO₂. Based on the fuel use restrictions included in Condition D.1.6, the PTE SO₂ for the entire source is less than 25 tons per year (see TSD page 4), and the requirements of 326 IAC 7-1.1-1 do not apply to the Burnham Boilers. The requirements of Condition D.1.9 should also be restricted to only units 001 and 002 (the Kewanee boilers).

Response to Comment 7:

The Burnham boilers have a PTE below the thresholds of 25 tons per year and 10 pounds per hour, thus, they are not subject to 326 IAC 7-1.1-1. Therefore, Condition D.1.4 will be removed from the permit and D.1.9 (now renumbered as D.1.8) revised to include only units 001 and 002. The following D conditions will be renumbered accordingly.

~~D.1.4 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 Burnham Boilers (Units 003 and 004) shall each not exceed five tenths (0.5) pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.~~

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance with the fuel oil sulfur limitation shall be determined utilizing one of the following options for the remaining boilers (Units 001 and 002, ~~003, and 004~~).

Comment 8:

DADC request that Condition D.1.7, now renumbered as D.1.6, (Preventative Maintenance Plan [326 IAC 2-8-4(9)]) be removed from the permit since they are currently only combusting natural gas, and would only combust fuel oil in the event there is a curtailment in the natural gas supply.

Response to Comment 8:

The Preventive Maintenance Plan requirement must be included in every applicable FESOP permit pursuant to 326 IAC 2-8-3(c)(6)(A). This rule refers back to the Preventive Maintenance Plan requirement found in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

- (1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),
- (2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and
- (3) The identification and quantification of the replacement parts for the facility which the Permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the

personnel in charge of only the emission control equipment, and not any other facility equipment. 326 IAC 1-6-3(b) provides that "...as deemed necessary by the commissioner, any person operating a facility shall comply with the requirements of subsection (a) of this section."

Many types of facilities require maintenance in order to prevent excess emissions. In addition to preventive maintenance performed on the control devices, preventive maintenance should be performed on the boilers themselves because lack of proper maintenance on the boiler can result in boiler tube leaks or improper burner air settings which can result in increased emissions.

Although right now the Permittee is currently burning natural gas on a regular basis, fuel oil could be used at any time due to curtailment, rising cost of natural gas, etc. There has been no change to the permit as a result of this comment.

Comment 9:

DADC request that Condition D.1.10, now renumbered as D.1.9, (Visible Emissions Notations) and D.1.11(b), now renumbered as D.1.10 (b), (Record Keeping Requirements) be eliminated from the permit.

The state's guidance on compliance monitoring indicates that monitoring should generally apply to emission units with allowable emissions greater than 10 pounds per hour. We would note that the allowable emissions for the various boilers range from 2.1 to 5.1 pounds per hour. This is based on the individual emission limits in lbs/MMBtu from Condition D.1.2 and the rated capacities of the units. In addition, we would note that a control device is not required to meet the emission limits and therefore we do not see the utility in performing visible emissions observations. We would note that the AP-42 emission factor for distillate oil combustion is equivalent to 0.014 lbs/MMBtu, which is much less than the allowable emission rates, which range from 0.35 to 0.42 lbs/MMBtu. Lastly, we do occasionally fire the boilers on fuel oil for very brief periods to adjust the burners. These burns generally last for a few hours at most. We do not believe that it makes sense to assess whether the emissions are "normal" during these infrequent uses of fuel oil. For all of these reasons we would request that Condition D.1.10 and D.1.11(b) be eliminated from the permit.

As an alternative, we would request that the first sentence of D.1.10(a) be amended to read as follows:

"Visible emission notations of each boiler (units 001, 0002, 003, 004, 005, and 006) stack exhaust shall be performed once per shift during normal daylight operations when combusting fuel oil (except where the combustion of fuel oil is being done for test burns only) and exhausting to the atmosphere."

Response to Comment 9:

Compliance monitoring conditions such as these requirements to perform visible emission notations, are required in order to demonstrate continuous compliance with the permit requirements. Visible emission notations are used to indicate compliance with 326 IAC 5-1 and the particulate matter limits pursuant to 326 IAC 6-2-3 and 326 IAC 6-2-4. Since process upset can occur suddenly and without warning, possibly causing a violation of 326 IAC 5-1, 326 IAC 6-2-3, or 326 IAC 6-2-4, the OAQ and VCAPC does believe that notations once per shift are necessary for the Permittee to certify continuous compliance.

OAQ and VCAPC feels that it is necessary to have a trained employee(s) observe "normal" conditions during the test burns in case the Permittee is required to burn only fuel oil due to curtailment, etc. of natural gas. The knowledge and awareness the employee(s) would have of normal conditions while burning fuel oil could minimize lag time in addressing equipment failure.

Comment 10:

DADC request that Condition D.2.2 (Preventive Maintenance Plan [326 IAC 2-8-4(9)]) be removed from the permit. There are no specific emission limits that apply to these emission units, and therefore there should not be a requirement for a Preventive Maintenance Plan. The only limits are for fuel usage, and the PMP would not relate to the amount of fuel used.

Response to Comment 10:

The Preventive Maintenance Plan requirement must be included in every applicable FESOP permit pursuant to 326 IAC 2-8-3(c)(6)(A). This rule refers back to the Preventive Maintenance Plan requirement found in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

- (1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),
- (2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and
- (3) The identification and quantification of the replacement parts for the facility which the Permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. 326 IAC 1-6-3(b) provides that "...as deemed necessary by the commissioner, any person operating a facility shall comply with the requirements of subsection (a) of this section."

Many types of facilities require maintenance in order to prevent excess emissions. In addition to preventive maintenance performed on the control devices, preventive maintenance should be performed on the generators themselves because lack of proper maintenance on the generators can result in increased emissions.

Technical Support Document (TSD) Comments:

Comment 11:

Page 9 of 10, State Rule Applicability - Individual Facilities, 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating). The Kewanee Boilers were constructed prior to September 21, 1983. 326 IAC 6-2-1(b) applies, which designated the limit listed under 326 IAC 6-2-2. The equation is $Pt = 0.87/Q0.16$ and the limit is 0.53 lb/MMBtu.

Response to Comment 11:

The OAQ and VCAPC prefer the technical support document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. However, after further discussions, DADC and VCAPC are in agreement that 326 IAC 6-2-3 (not 326 IAC 6-2-2) is applicable to the Kewanee Boilers and the FESOP will be revised to show this documentation.

Comment 12:

Appendix A, page 9 of 12, The heading for the spreadsheet is "Limited Natural Gas Combustion - for the natural gas only boiler". The spreadsheet appears to be showing the emissions for the 706 MMCF limit for all natural gas combustion at the source. The spreadsheet should be corrected to reflect the additional emission units subject to the limit.

Response to Comment 12:

There was an error in the heading and it should have stated "Limited Natural Gas Combustion - for all natural gas combustion". However, the OAQ and VCAPC prefer the technical support document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 13:

VOC Potential to Emit. DADC has a number of individual small sources to VOC emissions, and we also emit VOC's as fugitives from our general cleaning operations. While none of the individual emission units is significant, we wanted to provide a more detailed assessment of the Total VOC potential to emit to ensure that all sources are accounted for.

We use Isopropyl Alcohol (IPA) for a number of cleaning operations at our facility. In some cases the IPA is associated with specific cleaning operations, but the majority of use is for wipe cleaning throughout the plant. This is in the form of paper wipes, which are used from small containers, and then discarded in closed storage containers to be shipped as waste. We do not track IPA usage by individual process, but do account for the total usage and the amount of liquid wasted that is shipped off site. There is also an appreciable amount of IPA that is shipped as waste, which also contains the solid wipes used in cleaning. This waste is more difficult to account for. The following assessment has been done to assess the total PTE of the IPA itself.

Total IPA usage for 2003	55.6 tons
IPA shipped as liquid waste for 2003	9.1 tons
Usage of IPA for 2003 minus liquid waste	46.5 tons
Estimated % of IPA to solid waste	75%
Net IPA emissions (0.25 x usage minus liquid waste)	11.63 tons
Actual units produced for 2003	581,424,493
IPA emissions per million units produced	40.0 pounds
Rated Capacity of the entire plant, million units/day	2.4
PTE IPA at rated capacity and 365 days	17.54 tons/year

This is the single largest source of VOC emissions at our plant. A variety of other processes use various VOC containing materials. We keep monthly records of the use of all of these materials and for this analysis have assumed that all of the VOC's contained in these materials would be emitted, even though some portion would be sent as waste. We have done a similar assessment for these materials as presented below.

Total non-IPA VOC usage for 2003	10.97 tons
Actual units produced for 2003	581,424,493
Non-IPA VOC emissions per million units produced	37.7 pounds
Rated Capacity of the entire plant, million units/day	2.4
PTE non-IPA VOC's at rated capacity and 365 days	16.52 tons/year

The total combined PTE is therefore 34.06 tons per year from all sources. We believe that this adequately demonstrates that our PTE for VOC's is well below 100 tons/year. We would suggest that the permit be modified to identify general solvent cleaning with IPA as a source of emissions, although we do not believe that there are any applicable requirements for the IPA general cleaning. We are not proposing that the permit conditions be modified in any way, but do believe that the TSD should include a similar assessment showing that the VOC PTE is less than 100 tons/year.

Response to Comment 13:

IDEM, OAQ and VCAPC are in agreement that the above calculations are accurate and the VOC PTE is less than 100 tons/year. However, the OAQ and VCAPC prefer the technical support document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Upon further review, IDEM and VCAPC have made the following changes:

Change 1:

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Vigo County has been designated as nonattainment for the 8-hour ozone standard. The following has been added to A.1 General Information:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary manufacturing plant for optical discs.

Authorized individual: Michael Mitchell, Vice President and General Manager
Source Address: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
Mailing Address: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
General Source Phone: (812) 462-8100
SIC Code: 3652
Source Location Status: Vigo County
Maintenance Attainment for Sulfur Dioxide
Basic Nonattainment for 8-hour Ozone
Attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD or Emission Offset Rules;
Minor Source for Nonattainment NSR
Minor Source, Section 112 of the Clean Air Act

Change 2:

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, **Billing, Licensing, and Training Section**), to determine the appropriate permit fee.

Change 3:

The following change is located in the top paragraph of the Quarterly Deviation and Compliance Monitoring

Report:

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 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".

Change 4:

D.2.1 Fuel Use Limitation [326 IAC 2-8]

- (a) The fuel oil usage for the generators (Units 007, 008, 009, 010, and the 620 BHP generator) combined shall not exceed 200,000 gallons of #2 fuel oil per 12-consecutive month period, with compliance determined at the end of each month. This limitation, in combination with the natural gas and fuel oil limitations on the boilers make the requirements of 326 IAC 2-7 not applicable.
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight.

Change 5:

The following addition is located in Condition C.2:

- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.**
- (bc)** This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (ed)** Section D of this permit contains independently enforceable provisions to satisfy this requirement.

**FESOP Emission Calculations
Digital Audio Disc Corporation
1800 N. Fruitridge Avenue
Terre Haute, Indiana 47804
F167-15123-00032**

Natural Gas Combustion - for the dual fuel boilers

- 10.462 Kewanee Boiler (Unit 001)
- 10.462 Kewanee Boiler (Unit 002)
- 9.863 Burnham Boiler (Unit 003)
- 9.863 Burnham Boiler (Unit 004)
- 16.8 Superior Boiler (Unit 005)
- 16.8 Superior Boiler (Unit 006)

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

74.3

650.9

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.6	2.5	0.2	32.5	1.8	27.3

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

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

HAP Calculations for Natural Gas fired boilers:

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.834E-04	3.905E-04	2.441E-02	5.858E-01	1.106E-03

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.627E-04	3.580E-04	4.556E-04	1.237E-04	6.834E-04

Methodology is the same as page 1.

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

**FESOP Emission Calculations
 Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032**

#2 Fuel Oil Combustion - for the dual fuel boilers

- 10.462 Kewanee Boiler (Unit 001)
- 10.462 Kewanee Boiler (Unit 002)
- 9.863 Burnham Boiler (Unit 003)
- 9.863 Burnham Boiler (Unit 004)
- 16.8 Superior Boiler (Unit 005)
- 16.8 Superior Boiler (Unit 006)

Total Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
74.3	4645.92857	

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	2.0	3.3	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	4.6	7.7	164.9	46.5	0.8	11.6

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

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
 Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

HAP Calculations for #2 Fuel Oil fired boilers:

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	1.30E-03	9.76E-04	9.76E-04	9.76E-04	2.93E-03

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	9.76E-04	1.95E-03	9.76E-04	4.88E-03

Methodology

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

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

**FESOP Emission Calculations
Digital Audio Disc Corporation
1800 N. Fruitridge Avenue
Terre Haute, Indiana 47804
F167-15123-00032**

Natural Gas Combustion - for the natural gas only boiler

6.0 Cleaver Brooks Corp. boiler

Heat Input Capacity Potential Throughput
MMBtu/hr MMCF/yr

6.0

52.6

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.050	0.200	0.016	2.63	0.145	2.21

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

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

HAP Calculations - for the natural gas only boiler:

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.519E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.314E-05	2.891E-05	3.679E-05	9.986E-06	5.519E-05

Methodology is the same as page 1.

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

**Appendix A: Emission Calculations
Generators - Diesel Fuel**

Reciprocating

Company Name: Digital Audio Disc Corporation
Address City IN Zip: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
F#: 167-15123
Plt ID: 167-00032
Reviewer: Darren Woodward
Date: September 17, 2003

Diesel Generators:

- 0.99 MMBtu/h Onan Corp. diesel generator (Unit 007)
- 0.84 MMBtu/h Onan Corp. diesel generator (Unit 008)
- 1.21 MMBtu/h Onan Corp. diesel generator (Unit 009)
- 1.42 MMBtu/h Caterpillar Corp. diesel fire pump (Unit 010)
- 4.25 MMBtu/h Onan Corp. diesel generator (Unit 013)

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

Heat Input Capacity
MM Btu/hr

8.71

Emission Factor in lb/MMBtu	Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO	HAP
	0.31	0.31	0.29	4.41	0.36	0.95	0.006
Potential Emission in tons/yr	11.8	11.8	11.1	168	13.7	36.2	0.229

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

Combined Potential Emissions

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Dual Fuel Boilers	4.60	7.70	165	46.5	1.80	27.3
Natural Gas Boilers	0.050	0.200	0.016	2.63	0.145	2.21
Generators	11.8	11.8	11.1	168	13.7	36.2
Total PTE (before any limitations)	16.5	19.7	176.1	217.1	15.6	65.7

Therefore DADC would be subject to the provisions of 326 IAC 2-7 without enforceable limitations. Both the NOx and SO₂ emissions need limits.

DADC proposed the following fuel limitations:

- 706 MM cubic feet of natural gas per year
- 200 thousand gallons of fuel oil per year (boilers)
- 200 thousand gallons of diesel fuel per year (generators)

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

Limited Natural Gas Combustion - for the natural gas only boiler

6.0 Cleaver Brooks Corp. boiler

Heat Input Capacity Potential Throughput
 MMBtu/hr MMCF/yr

6.0

706.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.671	2.68	0.212	35.3	1.94	29.7

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

FESOP Emission Calculations
Digital Audio Disc Corporation
 1800 N. Fruitridge Avenue
 Terre Haute, Indiana 47804
 F167-15123-00032

Limited #2 Fuel Oil Combustion - for the dual fuel boilers

- 10.462 Kewanee Boiler (Unit 001)
- 10.462 Kewanee Boiler (Unit 002)
- 9.863 Burnham Boiler (Unit 003)
- 9.863 Burnham Boiler (Unit 004)
- 16.8 Superior Boiler (Unit 005)
- 16.8 Superior Boiler (Unit 006)

Total Heat Input Capacity Potential Throughput $S = \text{Weight \% Sulfur}$
 MMBtu/hr kgals/year 0.5

74.3 **200 Limit**

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	2.0	3.3	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	0.2	0.3	7.1	2.0	0.034	0.5

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

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

**Generators
Reciprocating**

Company Name: Digital Audio Disc Corporation
Address City IN Zip: 1800 North Fruitridge Avenue, Terre Haute, Indiana 47804
F#: 167-15123
Plt ID: 167-00032
Reviewer: Darren Woodward
Date: September 17, 2003

Determining the Limited Heat Input Capacity for the Generators:

Fuel Oil Limit = 200,000 gal/yr
 Heating value = 137,000 Btu/gal
 Limited Heat Input Capacity = (200,000 Gal/yr)(0.137 MMBtu/Gal) = 27,400 MMBtu/yr

Limited emissions calculated based on the 200,000 gallons per year limit of #2 fuel oil for the generators.

Limited Heat Input Capacity
 MM Btu/yr

27400.0

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.31	0.31	0.29	4.41	0.4	0.95	
Potential Emission in tons/yr	4.25	4.25	3.97	60.4	4.93	13.0

Methodology

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

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)

*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.

**FESOP Emission Calculations
Digital Audio Disc Corporation**

1800 N. Fruitridge Avenue
Terre Haute, Indiana 47804
F167-15123-00032

Boiler Emissions based on the proposed limits:

Natural Gas Combustion

Potential Throughput 706.0 MMBtu/yr

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	0.671	2.68	0.212	35.3	1.94	29.7

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

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

Fuel Oil Combustion

Limited Potential Throughput 200 kgals/year 0.5 S = Weight % Sulfur

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	2.0	3.3	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	0.200	0.330	7.10	2.00	0.034	0.500

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

Generator Limited Emissions based on the proposed limits:

Limited Potential Throughput 27400 MMBtu/yr Emissions limited based on 200,000 gal

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.31	0.31	0.29	4.41	0.36	0.95