



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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March 10, 2003

Don Borowka
Jet Corr, Inc.
3155 State Road 49
Valparaiso, Indiana 46383

Re: **1127-16841**
First Significant Revision to
FESOP 127-11731-00094

Dear Mr. Borowka:

Jet Corr, Inc. was issued a permit on April 4, 2000 for a corrugated box manufacturing source. A letter requesting changes to this permit was received on November 22, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1(f)(1)(E) a Significant Permit Revision to this permit is hereby approved as described in the attached Technical Support Document.

The proposed revision is to use only the existing cyclone in the Baler system, known as EU 009, originally installed in 2000. The Baler system used to be controlled by the baghouse/cyclone control devices. The Baler system was included as an insignificant activity in the original FESOP. However, due to the elimination of the baghouse, the potential to emit particulate from the existing cyclone alone now exceeds the insignificant activity threshold. Therefore, a permit revision is required.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire revised FESOP, with all revisions and amendments made to it, is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Frank P. Castelli, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 13, or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
FPC/MES

cc: File - Porter County
U.S. EPA, Region V
Porter County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Dave Sampias
Compliance Branch - Karen Nowak
Administrative and Development - Lisa Lawrence
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

**Jet Corr, Inc.
3155 State Road 49
Valparaiso, Indiana 46383**

(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.

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.: F 127-11731-00094	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: April 4, 2000 Expiration Date: April 4, 2005

First Minor Permit Revision No. 127-12978-00094	Issuance Date: May 1, 2001
First Administrative Amendment No. 127-14313-00094	Issuance Date: June 28, 2001
Second Minor Permit Revision No. 127-14750-00094	Issuance Date: September 25, 2001
First Reopening No. 127-13097-000094	Issuance Date: September 27, 2001

First Significant Permit Revision 127-16841-00094	Conditions Affected: A.2, A.3 and Sections D.3 and D.4
Issued by: Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 10, 2003

SECTION D.3 FACILITY OPERATION CONDITIONS: Baler System

Emission Limitations and Standards [326 IAC 2-8-5(1)]

- D.3.1 Particulate [326 IAC 6-3-2]
- D.3.2 PM₁₀ Emissions [326 IAC 2-8-4]
- D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

- D.3.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-8-6(1)] [326 IAC 2-8-5(1)]

- D.3.5 Particulate Control
- D.3.6 Visible Emissions Notations
- D.3.7 Cyclone Inspections
- D.3.8 Cyclone Failure Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-5(3)] [326 IAC 2-8-19]

- D.3.9 Record Keeping Requirements

SECTION D.4 FACILITY OPERATION CONDITIONS: Insignificant Activities

Emission Limitations and Standards [326 IAC 2-8-5(1)]

- D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]
- D.4.2 Particulate Matter (PM) [326 IAC 6-3]
- D.4.3 Nitrogen Oxides (NO_x) [326 IAC 2-3]

Compliance Determination Requirement [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

- D.4.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

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

- D.4.5 Record Keeping Requirements

Certification Form

Emergency/Deviation Form

Natural Gas-Fired Boiler Certification

Quarterly Report Forms

Quarterly Compliance Monitoring Report Form

SECTION A

SOURCE SUMMARY

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

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

The Permittee owns and operates a corrugated box manufacturing source.

Authorized Individual: Phillip Cole
Source Address: 3155 State Road 49, Valparaiso, Indiana 46383
Mailing Address: 3155 State Road 49, Valparaiso, Indiana 46383
Phone Number: 219 - 548 - 8525
SIC Code: 2653
County Location: Porter
County Status: Nonattainment for ozone
Attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under Emission Offset Rules;
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 corrugated box manufacturing source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas-fired low NO_x boiler, known as EU 001, with No. 2 fuel oil as backup, rated at 20.92 million British thermal units per hour, exhausted through Stack S001.
- (b) One (1) 3-color 48-inch flexographic printer-folder-gluer machine, known as EU 003, capacity: 250 sheets per minute.
- (c) One (1) 4-color 48-inch flexographic printer-folder-gluer machine, known as EU 004, capacity: 250 sheets per minute.
- (d) One (1) 94.5-inch EMBA press, known as EU 005, capacity: 957 feet per minute.
- (e) One (1) 2-color flexographic printer-folder-gluer machine, known as EU 012, with a capacity of 100 sheets per minute at 89" X 205".
- (f) One (1) natural gas-fired low NO_x boiler, known as EU 013, with No. 2 fuel oil as backup, rated at 20.92 million British thermal units per hour, exhausted through Stack S002.
- (g) One (1) flexographic printer-folder-gluer machine, known as EU 017, capacity: 60.5 million square inches of paper per hour.
- (h) One (1) flexographic printer-folder-gluer machine, known as EU 018, capacity: 79.2 million square inches of paper per hour.
- (i) One (1) Baler system equipped with a cyclone, known as EU 009, installed in 2000, modified in 2003, exhausted to Stack S003, capacity: 6,400 pounds of corrugated trimmings

per hour.

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) Natural gas-fired combustion sources each with heat input equal to or less than ten million (10,000,000) British thermal units per hour. Consisting of six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, rated at 39.23 million British thermal units per hour total.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment consisting of miscellaneous cutting torches, known as EU010.
- (c) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one (1) percent by volume.
- (d) On-site fire and emergency response training approved by the department.
- (e) One (1) above-ground storage tank, capacity: 1,000 gallons of No. 2 fuel oil, known as EU 002.
- (f) One (1) cold solvent degreaser, known as EU 007.
- (g) Rotary die cutters, known as EU 008.
- (h) One (1) closed loop waste water system, known as EU 012.
- (i) Starch silo equipped with a baghouse.
- (j) Two (2) paper corrugating machines, known as EU 006.

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

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

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, when applicable shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (i) One (1) Baler system equipped with a cyclone, known as EU 009, installed in 2000, modified in 2003, exhausted to Stack S003, capacity: 6,400 pounds of corrugated trimmings per hour.

(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.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Baler system shall not exceed 8.94 pounds per hour when operating at a process weight rate of 6,400 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.2 PM₁₀ Emissions [326 IAC 2-8-4]

The PM₁₀ emissions from the Baler system equipped with a cyclone shall not exceed 8.94 pounds per hour. Compliance with this limit will satisfy the requirements of 326 IAC 2-8-4.

D.3.3 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 the Baler system and its control device.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing of the Baler system controlled by a cyclone utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.3.5 Particulate Control

In order to comply with Conditions D.3.1 and D.3.2, the cyclone for particulate control shall be in operation and control emissions from the Baler system at all times that the Baler system is in operation.

D.3.6 Visible Emissions Notations

- (a) Visible emission notations of the Baler system stack exhaust S003 shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) 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 Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.7 Cyclone Inspections

An inspection shall be performed within the last month of each calendar quarter of all cyclones controlling the Baler system.

D.3.8 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.3.9 Record Keeping Requirements

- (a) To document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the Baler system stack exhaust once per shift.
- (b) To document compliance with Condition D.3.7, the Permittee shall maintain records of the results of the inspections required under Condition D.3.7.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment consisting of miscellaneous cutting torches, known as EU010.
- (b) Two (2) paper corrugating machines, known as EU 006.
- (c) One (1) cold solvent degreaser, known as EU 007.
- (d) Rotary die cutters, known as EU 008.
- (e) Starch silo equipped with a baghouse.
- (f) Natural gas-fired combustion sources each with heat input equal to or less than ten million (10,000,000) British thermal units per hour. Consisting of six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, rated at 39.23 million British thermal units per hour total.

(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 2-8-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreaser facility EU 007 shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38 C) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.4.2 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from these facilities shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.4.3 Nitrogen Oxides (NO_x) [326 IAC 2-3]

The six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, rated at a total of 39.23 million British thermal units per hour, shall not operate during the months of June, July and August of each year, equivalent to a total input of natural gas of less than 266.45 million cubic feet per year. This operational limit combined with the potential to emit from the two (2) boilers assures that the potential to emit NO_x from the entire source shall not exceed twenty-five (25) tons per year and therefore the requirements of 326 IAC 2-3 are not applicable.

Compliance Determination Requirement [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

D.4.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require

compliance testing when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-8-5(3)] [326 IAC 2-8-19]

D.4.5 Record Keeping Requirements

- (a) To document compliance with Condition D.4.3, the Permittee shall maintain records of which months of the year the six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, operate in a log book.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Jet Corr, Inc.
Source Location:	3155 State Road 49, Valparaiso, Indiana 46383
County:	Porter
SIC Code:	2653
Operation Permit No.:	127-11731-00094
Operation Permit Issuance Date:	April 4, 2000
Significant Permit Revision No.:	SPR 127-16841-00094
Permit Reviewer:	Frank P. Castelli

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Jet Corr, Inc. relating to the construction and operation of the following emission unit and pollution control device:

- (i) One (1) Baler system equipped with a cyclone, known as EU 009, installed in 2000, modified in 2003, exhausted to Stack S003, capacity: 6,400 pounds of corrugated trimmings per hour.

History

On November 22, 2002, the Office of Air Quality (OAQ) received your application for a permit revision to a Federally Enforceable State Operating Permit (FESOP) for a corrugated box manufacturing source, located at 3155 State Road 49, Valparaiso, Indiana 46383. Jet Corr, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) on April 4, 2000. The proposed revision is to use only the existing cyclone in the Baler system, known as EU 009, originally installed in 2000. The Baler system used to be controlled by the baghouse/cyclone control devices. However, since the baghouse has been destroyed by a fire, the existing cyclone will be retained as the lone control device for the Baler system.

The Baler system was included as an insignificant activity in the original FESOP. However, due to the elimination of the baghouse, the potential to emit particulate from the existing cyclone alone now exceeds the insignificant activity threshold. Therefore, a permit revision is required.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the existing cyclone be considered as an integral part of the Baler system:

- (a) The Baler system operates pneumatically conveying trimmings to the cyclone.
- (b) The Baler system can not operate without the cyclone since the cyclone is the mechanism by which the material is routed to the Baler.

- (c) The primary purpose of the cyclone is to separate trimmings from the air stream.
- (d) The baled trimmings are sold to mills to make paper. Jet Corr receives approximately \$60 per ton which corresponds to a saving of more than \$4,000 per day based on the 6,400 pound per hour throughput.

IDEM, OAQ has evaluated the above justifications and agreed that the cyclone will be considered as an integral part of the Baler system. Therefore, the potential-to-emit PM and PM₁₀ will be determined after the cyclone, i.e., the potential-to-emit before and after the cyclone is the same. Operating conditions in the proposed permit will specify that this cyclone shall operate at all times when the Baler system is in operation.

Note that even though IDEM OAQ agrees that the cyclone is an integral part of the Baler system, the cyclone is still considered a particulate control device.

Enforcement Issue

The source has an enforcement action pending (Case No. 2000-9180-A) for constructing and operating the original source before receiving the proper permits on April 4, 2000, an alleged violation of 326 IAC 2. A Notice of Violation was signed on February 5, 2001. The matter is being handled by the Office of Enforcement.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
Stack S003	Baler system	Not Available	Not Available	92,000	ambient

Recommendation

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

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

An application for the purposes of this review was received on November 22, 2002. Additional information was received on December 18, 2002.

Emission Calculations

The proposed Baler system has the capacity to process 6,400 pounds per hour of scrap at a control efficiency of 99.9%. Therefore, the potential particulate emissions after control are 6,400 pounds per hour $(1 - 0.999) = 6.40$ pounds per hour, equivalent to 28.0 tons per year. All particulate is assumed to be PM₁₀.

Potential To Emit of Revision

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 for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	28.0
PM ₁₀	28.0
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

HAPs	Potential To Emit (tons/year)
	None

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E). This revision to an existing FESOP is considered a significant permit revision since the potential to emit PM and PM₁₀ from the proposed revision exceeds twenty five (25) tons per year.

The application can not be processed as a minor permit revision pursuant to 326 IAC 2-8-11.1(d)(5)) with a potential to emit that exceeds twenty five (25) tons per year. 326 IAC 2-8-11.1(d)(5) allows a revision to an existing FESOP to be considered a “minor” permit revision if only **one (1)** of the cited methods is employed. In this proposed revision, two (2) of the cited methods are necessary to limit the PM and PM₁₀ emissions to less than twenty five (25) tons per year. These two (2) methods are the operation of the cyclone combined with a material throughput limit. Since both and not “one” of the constraints are required to limit the potential to emit PM and PM₁₀ to less than twenty five (25) tons per year, this proposed revision does not qualify as a minor permit revision.

Pursuant to 326 IAC 2-8-11.1(d)(5), the cyclone is considered a control device even though it has been determined to be an “integral” part of the operation. The fact that IDEM, OAQ has determined the cyclone to be integral to the baling system allows the potential to emit PM and PM₁₀ to be considered after the cyclone control, but IDEM, OAQ still considers the cyclone to be a “control device”.

County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	severe nonattainment
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. Porter County has been designated as severe nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Porter County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	1.96
PM ₁₀	2.14
SO ₂	6.32
VOC	less than 25
CO	22.1
NO _x	less than 25

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, it is not one of the 28 listed source categories, and
- (b) VOC is not emitted at a rate of twenty five (25) tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (c) These emissions are based upon the Technical Support Document for 127-14750, issued on September 25, 2001.

Potential to Emit of Revision 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 FESOP revision.

Process/facility	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Proposed Revision	28.0	39.2	0.00	0.00	0.00	0.00	0.00
PSD or Offset Threshold Level	250	250	250	25	250	250	-

Note, IDEM, OAQ is proposing a PM₁₀ emission limit equivalent to the hourly PM limit to comply with 326 IAC 6-3-2, or 39.2 tons of PM₁₀ per year so that the entire source will still comply with 326 IAC 2-8-4.

- (a) This revision to an existing minor stationary source is not major because the emission increases are less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) This revision to an existing minor stationary source is not major because there are no VOC emission increases. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

This revision to the existing FESOP will **not** change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability - Individual Facilities

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

This revision is a minor modification to an existing minor PSD source for PM and PM₁₀.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The particulate from the Baler system shall not exceed 8.94 pounds per hour when operating at a process weight rate of 3.20 tons per hour. This limitation is based upon the following:

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

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

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The potential to emit PM from the Baler system of 6.40 pounds per hour complies with this rule.

The cyclone shall be in operation at all times the Baler system is in operation, in order to comply with this limit.

326 IAC 2-8-4 (FESOP)

The potential to emit PM₁₀ after controls of the integral cyclone is dependent on the capture efficiency. IDEM, OAQ is proposing a PM₁₀ emission limit equivalent to the hourly PM limit to comply with 326 IAC 6-3-2, or 39.2 tons of PM₁₀ per year so that the entire source will still comply with 326 IAC 2-8-4. This PM₁₀ limit combined with the remainder of the source allows for the adding of insignificant activities and/or emission units in the future.

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 the cyclone are as follows:

- (a) Visible emissions notations of the cyclone exhaust S003 shall be performed once per shift during normal daylight operations. 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.
- (b) An inspection shall be performed within the last month of each calendar quarter of the cyclone controlling the Baler system. Any defective parts shall be replaced.

- (c) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the cyclone controlling particulate emissions from the Baler system must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Testing Requirements

To demonstrate compliance with 326 IAC 6-3-2 and to verify the PM emission factor, a compliance stack test of PM for the proposed Baler system shall be performed within one hundred and eighty (180) days of permit issuance. Since all PM₁₀ has been assumed to be PM, a compliance stack test for PM₁₀ is not required at this time.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

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

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

- (i) **One (1) Baler system equipped with a cyclone, known as EU 009, installed in 2000, modified in 2003, exhausted to Stack S003, capacity: 6,400 pounds of corrugated trimmings per hour.**

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):

- (d) ~~Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device, such as a bag filter or cyclone consisting of one (1) trimmer and bailer system, known as EU 009, equipped with a baghouse and cyclone.~~
- (d e) On-site fire and emergency response training approved by the department.
- (e-f) One (1) above-ground storage tank, capacity: 1,000 gallons of No. 2 fuel oil, known as EU 002.
- (f g) One (1) cold solvent degreaser, known as EU 007.
- (g h) Rotary die cutters, known as EU 008.
- (h i) One (1) closed loop waste water system, known as EU 012.

- (i j) Starch silo equipped with a baghouse.
- (j k) Two (2) paper corrugating machines, known as EU 006.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (i) One (1) Baler system equipped with a cyclone, known as EU 009, installed in 2000, modified in 2003, exhausted to Stack S003, capacity: 6,400 pounds of corrugated trimmings per hour.

(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.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Baler system shall not exceed 8.94 pounds per hour when operating at a process weight rate of 6,400 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.2 PM₁₀ Emissions [326 IAC 2-8-4]

The PM₁₀ emissions from the Baler system equipped with a cyclone shall not exceed 8.94 pounds per hour. Compliance with this limit will satisfy the requirements of 326 IAC 2-8-4.

D.3.3 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 the Baler system and its control device.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing of the Baler system controlled by a cyclone utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.3.5 Particulate Control

In order to comply with Conditions D.3.1 and D.3.2, the cyclone for particulate control shall be in operation and control emissions from the Baler system at all times that the Baler system

is in operation.

D.3.6 Visible Emissions Notations

- (a) Visible emission notations of the Baler system stack exhaust S003 shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) 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 Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.7 Cyclone Inspections

An inspection shall be performed within the last month of each calendar quarter of all cyclones controlling the Baler system.

D.3.8 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.3.9 Record Keeping Requirements

- (a) To document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the Baler system stack exhaust once per shift.
- (b) To document compliance with Condition D.3.7, the Permittee shall maintain records of the results of the inspections required under Condition D.3.7.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 3

FACILITY OPERATION CONDITIONS

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment consisting of miscellaneous cutting torches, known as EU010.
- ~~(b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device, such as a bag filter or cyclone consisting of one (1) trimmer and bailer system, known as EU 009, equipped with a baghouse and cyclone.~~
- (be) Two (2) paper corrugating machines, known as EU 006.
- (cd) One (1) cold solvent degreaser, known as EU 007.
- (de) Rotary die cutters, known as EU 008.
- (ef) Starch silo equipped with a baghouse.
- (fg) Natural gas-fired combustion sources each with heat input equal to or less than ten million (10,000,000) British thermal units per hour. Consisting of six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, rated at 39.23 million British thermal units per hour total.

(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 2-8-5(1)]

D.43.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreaser facility EU 007 shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38 C) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover

while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.43.2 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from these facilities shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.43.3 Nitrogen Oxides (NO_x) [326 IAC 2-3]

The six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, rated at a total of 39.23 million British thermal units per hour, shall not operate during the months of June, July and August of each year, equivalent to a total input of natural gas of less than 266.45 million cubic feet per year. This operational limit combined with the potential to emit from the two (2) boilers assures that the potential to emit NO_x from the entire

source shall not exceed twenty-five (25) tons per year and therefore the requirements of 326 IAC 2-3 are not applicable.

Compliance Determination Requirement [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

D.43.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.43.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-8-5(3)] [326 IAC 2-8-19]

D.43.5 Record Keeping Requirements

- (a) To document compliance with Condition D.43.3, the Permittee shall maintain records of which months of the year the six (6) natural gas-fired makeup air units and eighteen (18) natural gas-fired unit heaters, collectively known as EU 011, operate in a log book.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Conclusion

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 127-16841-00094.