



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: April 11, 2006  
RE: Lafayette Paperboard / 157-22473-00002  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures  
FNPER.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
*We make Indiana a cleaner, healthier place to live.*

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Mr. Donald V. Morrison  
Lafayette Paperboard  
40 Chestnut Avenue  
Lafayette, Indiana 47903

April 11, 2006

Re: F157-22473  
First Significant Revision to  
FESOP 157-10113-00002

Dear Mr. Morrison:

Lafayette Paperboard was issued a permit on June 15, 2000 for a recycled linerboard paper manufacturing source. A letter requesting changes to this permit was received on December 27, 2005. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document. The modification consists of adding the ability to burn No. 6 Fuel Oil to the 50 MMBtu/hr boiler which is currently permitted to burn Natural Gas or No. 2 Fuel Oil.

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.

Permit Reviewer: James Farrell

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. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

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 call (800) 451-6027, press 0 and ask for James Farrell or extension 3-8396, or dial (317) 233-8396.

Sincerely,

Original signed by  
Paul Dubenetzky, Assistant Commissioner  
Office of Air Quality

Attachments

JF

cc: File - Tippecanoe County  
Tippecanoe County Health Department  
Air Compliance Section – Wanda Stanfield  
Permit Review Section 1- James Farrell



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# FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

## OFFICE OF AIR QUALITY

**Lafayette Paperboard  
40 Chestnut Avenue  
Lafayette, Indiana 47903**

(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 157-10113-00002	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 15, 2000  Expiration Date: June 15, 2005

First Reopening No.: F157-13111-00002, issued September 25, 2001  
First Administrative Amendment No.: F157-16526-00002, issued December 26, 2002

First Significant Permit Revision: F 157-22473-00002 Pages Affected: 3, 4, 25, 26, 27 and 32	
Issued by: Original signed by Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: April 11, 2006  Expiration Date: June 15, 2005

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]**

- C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

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

- C.14 Monitoring Data Availability
- C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

**Stratospheric Ozone Protection**

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

**SECTION D.1 FACILITY OPERATION CONDITIONS - Boiler, EU-BO1 & Paper Machine, EU-PM1**

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

- D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]
- D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]
- D.1.3 No. 6 Fuel Oil and Equivalent Usage, Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-8] [326 IAC 2-2]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.5 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.6 Visible Emissions Notations

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

- D.1.7 Record Keeping Requirements
- D.1.8 Reporting Requirements

**Certification Form**

**Emergency/Deviation Form**

**Natural Gas Fired Boiler Certification**

**Quarterly Report Form No. 2 Fuel Oil**

**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)]

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The Permittee owns and operates a stationary recycled paperboard paper manufacturing source.

Authorized individual: Felix St. Pierre  
Source Address: 40 Chestnut Avenue, Lafayette, Indiana 47903  
Mailing Address: P.O. Box 5149, Lafayette, Indiana 47903  
Phone Number: 765 - 423 - 5631  
SIC Code: 2631  
County Location: Tippecanoe County  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD 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)]

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

- (a) One (1) natural gas-fired boiler with backup No. 2 or No.6 fuel oil, known as EU-B01, rated at 50 million British thermal units per hour, installed on November 18, 1958, exhausted through Boiler Stack.
- (b) One (1) paper machine, known as EU-PM1, installed in 1902, capacity: 225 tons of paperboard per day.

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

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

- (a) Water-based degreasing operations.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (c) Propane for liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (e) Activities associated with the sequencing batch reactor for treatment of process waste water.
- (f) Paved and unpaved roads and parking lots with public access.

## SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) natural gas-fired boiler with backup No. 2 or No. 6 fuel oil, known as EU-B01, rated at 50 million British thermal units per hour, installed on November 18, 1958, exhausted through Boiler Stack.
- (b) One (1) paper machine, known as EU-PM1, installed in 1902, capacity: 225 tons of paperboard per day.

(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 Particulate Matter Limitation (PM) [326 IAC 6-2]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from boiler, EU-B01, used for indirect heating purposes which was existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

#### D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

- (a) For boiler, EU-B01, pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) when burning No. 2 fuel oil, the SO<sub>2</sub> emissions from the fifty (50.0) million British thermal units per hour boiler shall not exceed five tenths (0.5) pounds per million British thermal units heat input.
- (b) Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) when burning No. 6 fuel oil, the SO<sub>2</sub> emissions from the fifty (50.0) million British thermal units per hour boiler shall not exceed one and six tenths (1.6) pounds per million British thermal units heat input.

#### D.1.3 No. 6 Fuel Oil and Equivalent Usage, Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-8] [326 IAC 2-2]

- (a) The total input of No. 2 or No. 2 fuel oil equivalents fuel oil to steam, EU-B01, shall be limited to 2,760,563 per twelve (12) consecutive month period. This fuel limit is equivalent to 98.0 tons per year of SO<sub>2</sub>.
- (b) For purposes of determining compliance every 1,000 gallons of No. 2 fuel oil burned in the boiler, EU-B01 shall be equivalent to 348.0 gallons of No. 6 fuel oil based on SO<sub>2</sub> emissions and a maximum No. 2 fuel oil sulfur content of 0.5%.

Compliance with this limit will render the requirements of 326 IAC 2-7 (Part 70 Permit) and 326 IAC 2-2 (PSD) not applicable.

#### D.1.4 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 Boiler, EU-B01.

### Compliance Determination Requirements

#### D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance for boiler, EU-B01, shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input when burning No. 2 distillate fuel oil (fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight) and one and six-tenths (1.6) pounds per million Btu heat input when burning No. 6 residual fuel oil (fuel oil sulfur content does not exceed one and five-tenths percent (1.5%) by weight) by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a 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; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the fifty (50) million British thermal units per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

##### **D.1.6 Visible Emissions Notations**

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- (a) Visible emission notations of the Boiler Stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere and burning No. 2 or No. 6 fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

##### **D.1.7 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.2 and D.1.3, the Permittee shall maintain records for boiler, EU-BO1, in accordance with (1) through (6) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

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

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

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.1.7, the Permittee shall maintain records of visible emission notations of the Boiler Stack exhaust when burning No. 2 or No. 6 fuel oil.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.8 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.1.3 shall be submitted to the address 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.

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

**FESOP Quarterly Report**

Source Name: Lafayette Paperboard  
 Source Address: 40 Chestnut Street, Lafayette, Indiana 47903  
 Mailing Address: P.O. Box 5149, Lafayette, Indiana 47903  
 FESOP No.: F 157-10133-00002  
 Facility: EU-B01 Boiler  
 Parameter: No. 2 equivalent fuel oil  
 Limit: 2,760,563 gallons per twelve (12) consecutive month period. For purposes of demonstrating compliance every 1,000 gallons of No. 2 fuel oil burned in the boiler, EU-B01 shall be equivalent to 348.0 gallons of No. 6 fuel oil based on SO<sub>2</sub> emissions and a maximum No. 2 fuel oil sulfur content of 0.5%.

YEAR: \_\_\_\_\_

Month	No.2 Equivalent Oil	No.2 Equivalent Oil	No.2 Equivalent Oil
	This Month	Previous 11 Months	12 Month Total

- 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: \_\_\_\_\_

**Indiana Department of Environmental Management  
Office of Air Quality**

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

**Source Background and Description**

<b>Source Name:</b>	<b>Lafayette Paperboard</b>
<b>Source Location:</b>	<b>40 Chestnut Avenue, Lafayette, Indiana 47903</b>
<b>County:</b>	<b>Tippecanoe</b>
<b>SIC Code:</b>	<b>2631</b>
<b>Operation Permit No.:</b>	<b>F157-10113-00002</b>
<b>Operation Permit Issuance Date:</b>	<b>June 15, 2000</b>
<b>Significant Permit Revision No.:</b>	<b>F157-22473</b>
<b>Permit Reviewer:</b>	<b>James Farrell</b>

The Office of Air Quality (OAQ) has reviewed a FESOP Significant Permit Revision application from Lafayette Paperboard relating to the operation of a recycled linerboard paper manufacturing source.

**Permitted Emission Units and Pollution Control Equipment**

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

- (a) One (1) natural gas-fired boiler with backup No. 2 fuel oil, known as EU-B01, rated at 50 million British thermal units per hour, installed on November 18, 1958, exhausted through Boiler Stack.
- (b) One (1) paper machine, known as EU-PM1, installed in 1902, capacity: 102,000 square feet of paper per hour.

**Unpermitted Emission Units and Pollution Control Equipment**

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

**New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval**

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

- (a) The inclusion of the ability to burn backup No. 6 fuel oil along with backup No. 2 fuel oil to the boiler EU-B01.

**Insignificant Activities**

There are no changes to the existing insignificant activities included in this Significant Permit Revision to a FESOP.

### Existing Approvals

The source has been operating under the previous FESOP 157-10113-00002 issued on June 15, 2000, with an expiration date of June 15, 2005 and the following amendments and revisions:

- (a) First Administrative Amendment F157-16526-00002 issued on December 26, 2002

All conditions from previous approvals were incorporated into this FESOP.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the 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 December 27, 2005.

### Emission Calculations

See Appendix A, page 1 of 1, of this document for detailed emission calculations.

### Unrestricted Potential Emissions of the addition of backup Fuel Oil No. 6

This table reflects the unrestricted potential emissions of the source from the addition of fuel oil No. 6 as backup, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	<25
PM-10	<25
SO <sub>2</sub>	>250
VOC	<25
CO	<25
NO <sub>x</sub>	<100

HAPs	Unrestricted Potential Emissions (tons/yr)
Single HAP	<10
Combined HAPs	<25

### Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Boiler (EU-B01)	7.30	8.00	98.0	1.20	18.4	27.6	0.558
Paper Machine	0.00	0.00	0.00	0.182	0.00	0.00	0.126
Insignificant Activites	5.00	3.00	1.00	3.00	2.00	4.00	1.00
Total Emissions	12.3	11.0	99.0	4.38	20.4	31.6	1.68

### County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status Status
PM-10	attainment
PM-2.5	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
1-hour Ozone	attainment
8-hour Ozone	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO<sub>x</sub> were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Tippecanoe County has been classified as attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM<sub>2.5</sub> emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability – Entire Source section.
- (c) Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Federal Rule Applicability

- (a) The boiler, EU-B01, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c), Subpart Dc, since the boiler was constructed prior to the applicability date of June 9, 1989 and adding the ability to burn No. 6 Fuel Oil as a backup fuel is not a modification or reconstruction of the boiler. Therefore this NSPS is not included in this revision.
- (b) The boiler, EU-B01, is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart DDDDD – Standards for Industrial, Commercial and Institutional Boilers and Process Heaters, because it is not a major source of HAPs.

### State Rule Applicability – Entire Source

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

In the existing FESOP, the potential to emit SO<sub>2</sub> is limited to less than 100 tons per year from the entire source. The addition of Fuel Oil No. 6 will be included in the limitations existing in the permit. Therefore, 326 IAC 2-2 does not apply.

#### 326 IAC 2-8 (FESOP)

The unrestricted potential SO<sub>2</sub> emissions are greater than 250 tons per year from the entire source. The existing FESOP limits the potential to emit SO<sub>2</sub> to less than 100 tons per year. The proposed addition of Fuel Oil No. 6 will be included in the limitations existing in the permit. The potential to emit of SO<sub>2</sub> is still less than 100 tons per year. Therefore, 326 IAC 2-7 does not apply.

#### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the boiler, EU-B01, will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### 326 IAC 2-6 (Emission Reporting)

This source is not required to have an operating permit under 326 IAC 2-7, does not emit lead into the ambient air at levels  $\geq 5$  tpy, and is located in Tippecanoe County. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

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

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

### State Rule Applicability – Boiler EU-B01

#### 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating)

The 50 million British thermal units per hour rated boiler, constructed in 1958 is subject 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating).

- (a) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate matter emissions from indirect heating facilities existing and in operation before September 21, 1983, shall be limited by the following equation:

$$Pt = \frac{C * a * h}{76.5 * Q^{0.75} * N^{0.25}}$$

Pt = lbs of PM emitted per MMBtu heat input  
C = maximum ground level concentration (default = 50 ug/m<sup>3</sup>)  
a = plume rise factor (default = 0.67 for Q less than 1,000 MMBtu/hr)  
h = stack height in feet  
Q = total source maximum operating capacity  
N = number of stacks in fuel burning operation

$$Pt = \frac{50 \text{ ug/m}^3 * 0.67 * 48}{76.5 * 50^{0.75} * 1^{0.25}} = 1.12 \text{ pounds of particulate matter emitted per MMBtu heat input}$$

- (b) Since the formula limit of 1.12 exceeds the 0.8 pounds of particulate matter per million British thermal units heat input, then 326 IAC 6-3-2(d) is applicable:

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

Pursuant to FESOP 157-10113-00002, as shown on page 3 of 5 of Appendix A for the boiler combustion, the PM emissions from the boiler are 0.014 pounds per million British thermal units heat input. Therefore, the boiler complies with this rule for No. 2 fuel oil.

As shown on page 1 of 1 of Appendix A of this Technical Support Document for the boiler combustion, the PM emissions from the boiler are 0.033 pounds per million British thermal units heat input. Therefore, the boiler complies with this rule for No. 6 fuel oil.

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

Pursuant to FESOP F157-10113, issued June 15, 2000 and 326 IAC 7-1.1-2, sulfur dioxide (SO<sub>2</sub>) emissions from the Boiler shall be limited to 0.5 pounds per million British thermal units heat input when using No. 2 Fuel Oil.

The following calculation shows that the boiler is in compliance with the 0.5 pounds of SO<sub>2</sub> per million British thermal units heat input limit stated in the above condition:

$$0.5 \text{ lbs SO}_2 / \text{MMBtu} * 139,000 \text{ Btu/gal} = 69.5 \text{ lbs of SO}_2 / 1,000 \text{ gallons}$$

$$69.5 \text{ lbs of SO}_2 / 1,000 \text{ gallons} / 142 \text{ lbs of SO}_2 / 1,000 \text{ gallons} = 0.5$$

Since the sulfur content of the No. 2 oil burned in the boiler is 0.5 percent, the boiler is in compliance with 326 IAC 7-1.1-2.

Pursuant to 326 IAC 7-1.1-2, sulfur dioxide (SO<sub>2</sub>) emissions from the Boiler shall be limited to 1.6 pounds per million British thermal units heat input when using No. 6 Fuel Oil.

The following calculation shows that the boiler is in compliance with the 1.6 pounds of SO<sub>2</sub> per million British thermal units heat input limit stated in the above condition:

$$1.6 \text{ lbs SO}_2 / \text{MMBtu} * 150,000 \text{ Btu/gal} = 240 \text{ lbs of SO}_2 / 1,000 \text{ gallons}$$

$$240 \text{ lbs of SO}_2 / 1,000 \text{ gallons} / 157 \text{ lbs of SO}_2 / 1,000 \text{ gallons} = 1.5$$

Since the sulfur content of the No. 6 oil burned in the boiler is less than 1.5 percent, the boiler is in compliance with 326 IAC 7-1.1-2.

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

There are no changes to the compliance monitoring requirements included in this Significant Permit Revision to a FESOP.

## Changes to the FESOP

The following changes were requested in the application for this Significant Permit Revision. Bolded language has been added, and the language with a line through it has been deleted. The Table of Contents has been modified and conditions have been renumbered to reflect these changes.

(a) Section A revisions

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

The Permittee owns and operates a stationary ~~a~~ recycled paperboard paper manufacturing source.

Authorized individual: ~~Gary Thayer~~ **Felix St. Pierre**  
Source Address: ...

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

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

- (a) One (1) natural gas-fired boiler with backup No. 2 ~~or No. 6~~ fuel oil, known as EU-B01, rated at 50 million British thermal units per hour, installed on November 18, 1958, exhausted through Boiler Stack.

(b) Section D revisions

### SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) One (1) natural gas-fired boiler with backup No. 2 **or No. 6** fuel oil, known as EU-B01, rated at 50 million British thermal units per hour, installed on November 18, 1958, exhausted through Boiler Stack.

(b) ...

(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.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

(a) For boiler, EU-B01, pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) when burning No. 2 fuel oil, the SO<sub>2</sub> emissions from the fifty (50.0) million British thermal units per hour boiler shall not exceed five tenths (0.5) pounds per million British thermal units heat input.

(b) **Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) when burning No. 6 fuel oil, the SO<sub>2</sub> emissions from the fifty (50.0) million British thermal units per hour boiler shall not exceed one and six tenths (1.6) pounds per million British thermal units heat input.**

D.1.3 **No. 6 Fuel Oil and Equivalent Usage**, Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-8] [326 IAC 2-2]

(a) The total input of ~~equivalent~~ **No. 2 or No. 2 fuel oil equivalents** fuel oil to steam, EU-B01, shall be limited to 2,760,563 gallons per twelve (12) consecutive month period. This fuel limit is equivalent to 98.0 tons per year of SO<sub>2</sub>.

(b) ~~For purposes of determining compliance based on SO<sub>2</sub> emissions each million cubic feet of natural gas shall be equivalent to 8.45 gallons of No. 2 fuel oil every 1,000 gallons of~~ **No. 2 fuel oil burned in the boiler, EU-B01 shall be equivalent to 348.0 gallons of No. 6 fuel oil based on SO<sub>2</sub> emissions and a maximum No. 2 fuel oil sulfur content of 0.5%.**

**Compliance with this limit will render the requirements of 326 IAC 2-7 (Part 70 Permit) and 326 IAC 2-2 (PSD) not applicable.**

Compliance Determination Requirements

~~D.1.5 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 facility is in compliance. If testing is required by IDEM, compliance with the PM and SO<sub>2</sub> limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

D.1.56 Sulfur Dioxide Emissions and Sulfur Content

Compliance for boiler, EU-B01, shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the ~~fuel oil sulfur content does not exceed five tenths percent (0.5%) by weight by~~ **sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input when burning No. 2 distillate fuel oil (fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight) and one and six-tenths (1.6) pounds per million Btu heat input when burning No. 6 residual fuel oil (fuel oil sulfur content does one and five-tenths percent (1.5%) by weight) by:**

(1) ...

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

D.1.67 Visible Emissions Notations

- (a) Visible emission notations of the Boiler Stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere **and** burning No. 2 **or No. 6** fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) ...

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

D.1.78 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.2 and D.1.3, the Permittee shall maintain records for boiler, EU-BO1, in accordance with (1) through (6) below.

(1) ...  
(6) ...

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.1.7, the Permittee shall maintain records of visible emission notations of the Boiler Stack exhaust when burning No. 2 **or No. 6** fuel oil.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.89 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3 ~~when No. 2 fuel oil or natural gas was combusted, and the natural gas fired boiler certification,~~ shall be submitted to the address 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.

- (c) The FESOP Quarterly report limit for Fuel Oil No. 2, as found on page 32 of 33, will be revised as follows:

Parameter: No. 2 equivalent fuel oil  
Limit: 2,760,563 gallons per twelve (12) consecutive month period. **For purposes of demonstrating compliance every 1,000 gallons of No. 2 fuel oil burned in the boiler, EU-B01 shall be equivalent to 348.0 gallons of No. 6 fuel oil based on SO<sub>2</sub> emissions and a maximum No. 2 fuel oil sulfur content of 0.5%. Each million cubic feet of natural gas is equivalent to 8.45 gallons of No. 2 fuel oil**

**Conclusion**

The operation of this recycled linerboard paper manufacturing source shall be subject to the conditions of this Significant Permit Revision F157-22473-00002.

Company Name: Lafayette Paperboard  
 Plant Location: 40 Chestnut Street, Lafayette, Indiana 47903  
 County: Tippecanoe  
 Permit Reviewer: James Farrell

**\*\* No. 6 Fuel Oil \*\***

The following calculations determine the amount of emissions created by the combustion of No. 6 fuel oil @ 1.30 % sulfur, from the 50 MMBTU boiler, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

<b>Criteria Pollutant:</b>	<u>50 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	150,000 Btu/gal * 2,000 lb/ton	
<b>P M:</b>	15.2 lb/1000 gal =	<b>22.14 ton/yr</b>
<b>P M-10:</b>	16.7 lb/1000 gal =	<b>24.33 ton/yr</b>
<b>S O 2:</b>	204.1 lb/1000 gal =	<b>297.99 ton/yr</b>
<b>N O x:</b>	47.0 lb/1000 gal =	<b>68.62 ton/yr</b>
<b>V O C:</b>	0.28 lb/1000 gal =	<b>0.41 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>7.30 ton/yr</b>

**\*\* source emissions after controls \*\***

In order to qualify for the FESOP program, this facility must limit SO2 emissions to less than 100.0 tons per year. Consequently, SO2 emissions from the use of No. 6 Fuel Oil is being limited to 98.00 tons per year to be consistent with the 98.00 tons per year limit of Fuel Oil No. 2.

The following calculations determine the amount of emissions created by No.6 fuel oil @ 1.30 % sulfur based on a fuel usage limitation of 960,269 gal/yr:

<b>No. 6 Fuel Oil:</b>	<u>960,269 gal/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	2,000 lb/ton	
<b>P M:</b>	15.2 lb/1000 gal =	<b>7.3E+00 ton/yr *</b>
<b>P M-10:</b>	16.7 lb/1000 gal =	<b>8.0E+00 ton/yr *</b>
<b>S O 2:</b>	204.1 lb/1000 gal =	<b>98.00 ton/yr</b>
<b>N O x:</b>	47.0 lb/1000 gal =	<b>22.57 ton/yr</b>
<b>V O C:</b>	0.3 lb/1000 gal =	<b>0.13 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>2.40 ton/yr</b>

**Fuel Usage Limitations**

Fuel Oil: No. 6 Fuel Oil

$$\frac{98 \text{ tons SO}_2/\text{year limited}}{298.00 \text{ tons SO}_2/\text{year potential}} * 2920.00 \frac{\text{Kgals}}{\text{year potential}} = 960.27 \frac{\text{Kgals}}{\text{year limited}}$$

**Fuel equivalence limit of No. 2 Fuel Oil based on SO2 emissions from No. 6 Fuel Oil**

$$\frac{111.90 \text{ No. 2 F.O. potential emissions (ton/yr)}}{3151.08 \text{ No. 2 F.O. potential usage (kgal/yr)}} / \frac{297.99 \text{ No. 6 F.O. potential emissions (ton/yr)}}{2920.00 \text{ No. 6 F.O. potential usage (kgal/yr)}}$$

$$= 0.3480 \frac{\text{Kgal No. 6 F.O. burned}}{\text{Kgal No. 2 F.O. burned}}$$

**\*\* miscellaneous \*\*****326 IAC 7 Compliance Calculations:**

The following calculations determine the maximum sulfur content of No. 6 Fuel Oil allowable by 326 IAC 7:

$$1.6 \text{ lb/MMBtu} \times 150,000 \text{ Btu/gal} = 240 \text{ lb/1000gal}$$

$$240 \text{ lb/1000gal} / 157 \text{ lb/1000 gal} = 1.5 \%$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

**326 IAC 6-2-3 Compliance Calculations:**

The following calculation determines the PM emissions from No. 6 Fuel Oil combustion:

$$7.3 \text{ ton/year} \times \text{year}/8760 \text{ hrs} \times 2000 \text{ lb/ton} \times \text{hr}/50 \text{ MMBtu} = 0.033 \text{ lb/MMBtu}$$

Therefore, the boiler complies with this rule for No. 6 fuel oil.