

CONSTRUCTION PERMIT and ENHANCED NEW SOURCE REVIEW (ENSR) OFFICE OF AIR MANAGEMENT

**Jefferson Smurfit Corporation
455 West Factory Street
Wabash, Indiana 46992**

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

ENSR Permit No.: CP-169-10358-00002	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

A.1 General Information

Responsible Official: Larry Allegree
Source Address: 455 West Factory St., Wabash, Indiana
Mailing Address: P.O. Box 217, Wabash, Indiana
SIC Code: 2631
County Location: Wabash
County Status: Attainment for all criteria pollutants
Source Status: State Construction and ENSR Permit
Major Source, under PSD Rules;

A.2 Emission Units and Pollution Control Equipment Summary

The emission units are as follows:

- (a) One natural gas fired boiler with a capacity of 82.8 MMBTU/hr, designated as BO2, using #2 fuel oil as a backup fuel, and
- (b) One fuel oil tank storing #2 fuel oil, with a capacity of 20,000 gallons, designated as tank FT1.

A.3 Part 70 Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because it is a major source, as defined in 326 IAC 2-7-1(22). The emission units covered by this ENSR permit will be incorporated into the Part 70 permit by administrative amendment.

Section B Construction Conditions

General Construction Conditions [326 IAC 2-1-3]

B.1 Allowable Emissions

That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).

B.2 General Rule Applicability

This permit 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.

B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, Sections C and D of this permit become effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1-9(b)]

Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM, may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification of Construction Conditions

Notwithstanding Condition B.6, all requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 First Time Operation Permit [326 IAC 2-1-4]

At the completion of construction, this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) if the Part 70 Operating Permit (T-169-7148-00002) for the source has not been issued and when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

B.7 Part 70 Permit - Administrative Amendment [326 IAC 2-7-11(a)(5)]

Upon issuance of the Part 70 Operating Permit (T-169-7148-00002) for the source, this construction shall be incorporated in the Part 70 Operating Permit when the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with an operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Permittee shall receive an Administrative Amendment to the Part 70 Permit that incorporates the facilities under this Enhanced New Source Review (ENSR).

B.8 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.110b - 60.117b, Subpart Kb, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- (c) Actual start-up date (within 15 days after such date); and
- (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

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

The application and enforcement of these standards have been delegated to the IDEM-OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

Section C Source Operation Conditions

Entire Source

General Operation Conditions [326 IAC 2-1-4]

C.1 General Operation Conditions

- (a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- (b) The permittee shall 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.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

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

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

C.3 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

- (a) In the event that ownership of this 82.8 MMBtu per hour boiler and associated fuel storage tank is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

C.4 Permit Revocation [326 IAC 2-1-9(a)]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

C.5 Availability of Permit [326 IAC 2-1-3(l)]

Pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

C.6 Opacity Limitations [326 IAC 5-1-2]

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

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

C.7 Malfunction Condition [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Compliance Monitoring Requirements

C.8 Compliance Monitoring

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

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

in writing no more than ninety (90) days after receipt of this permit, with full justification of the reasons for inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

C.9 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.10 Compliance Monitoring Plan - Failure to Take Response Steps

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;

- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

Record Keeping and Reporting Requirements

C.11 Emission Statement [326 IAC 2-6]

- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

C.12 General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
- (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;

- (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.13 General Reporting Requirements

- (a) To affirm that the source has met all the requirements stated in this permit the source shall submit a Quarterly Compliance Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) A malfunction as defined in 326 IAC 1-6-2; or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

SECTION D.5 FACILITY OPERATION CONDITIONS

One natural gas fired boiler with a capacity of 82.8 MMBTU/hr, designated as BO2, using #2 fuel oil as a backup fuel.

Emission Limitations and Standards

D.5.1 PSD Minor Source Limit

The usage of #2 fuel oil for Boiler BO2 shall be limited to 1,126,000 gallons per year, rolled on a monthly basis. This production limitation is equivalent to less than 40 tons of sulfur dioxide per year, rolled on a monthly basis. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

That for any natural gas combusted during the twelve month period, the usage limit for the #2 fuel oil shall be reduced by 0.043 gallons for every million cubic feet of natural gas used.

During the first 12 months of operation, the usage shall be limited such that the total usage used in those accumulated months of operation divided by the accumulated months of operation shall not exceed 93,833 gallons per month.

D.5.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 12-1]

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

- (a) The SO₂ emissions from the 82.8 million BTU per hour oil-fueled boiler shall not exceed five tenths (0.5) pounds per million Btu heat input; or
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

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

D.5.3 Particulate Matter [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions from the 82.8 million BTU/hour boiler shall be limited to 0.234 pounds/MMBTU heat input.

D.5.4 Particulate Matter [326 IAC 12-1]

Pursuant to 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units), the gases discharged into the atmosphere from the 82.8 million BTU per hour oil-fueled boiler shall not exhibit greater than twenty percent (20%) opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. This opacity standard shall apply at all times, except during periods of startup, shutdown, or malfunction.

Compliance Determination Requirements

D.5.5 Testing Requirements

Pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests for particulate matter emissions and opacity shall be performed for the boiler within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.

- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
- (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
- (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
- (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.
- (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

D.5.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

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

A determination of noncompliance pursuant to 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

D.5.7 Continuous Opacity Monitor [326 IAC 3-5]

Pursuant to 326 IAC 3-5, the combined boiler Stack 1, shall continue to operate the installed continuous opacity monitor to insure compliance for the BO2 boiler with the opacity limits of 326 IAC 5-1-2 and 40 CFR 60.40c, Subpart Dc.

Record Keeping and Reporting Requirement

D.5.8 Record Keeping Requirements

(a) To document compliance with Condition D.5.1 and D.5.2, the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; 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.5.7, the Permittee shall maintain records of opacity, including raw data and supporting information, from the continuous opacity monitor on Stack 1 for a minimum of five (5) years from the date of any of the following:

- (1) a monitoring sample;
- (2) a measurement;
- (3) a test;

- (4) a certification.
 - (5) a report;
 - (6) any other activity required under 326 IAC 3-5.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 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.

SECTION D.6

FACILITY OPERATION CONDITIONS

One (1) fuel oil tank storing #2 fuel oil, with a capacity of 20,000 gallons, designated as tank FT1.

Emission Limitations and Standards

D.6.1 Volatile Liquid Storage Tanks [326 IAC 12]

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb), the permittee shall maintain accessible records for the volatile liquid storage tank. These records shall include the dimension of the storage vessels and an analysis showing the capacity of the storage vessels. These records shall be kept for the life of the storage tanks.

**Indiana Department of Environmental Management
Office of Air Management
Compliance Data Section**

Quarterly Report

Facility Name: Jefferson Smurfit Corporation
Location: 455 West Factory Street, Wabash, Indiana
Permit No.: 169-10358
Facility: Boiler BO2
Pollutant: SO2
Limit: Usage of #2 fuel oil to less than 1,126,000 gallons per year, rolled on a monthly basis.

Year: _____

Month	Usage (Gal./month)	Usage (gal/last 12 months)

Submitted by: _____

Title/Position: _____

Date: _____

Signature: _____

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ? _____, 100 LBS/HR VOC ? _____, 100 LBS/HR SULFUR DIOXIDE ? _____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ? _____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____

LOCATION: (CITY AND COUNTY) _____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL * SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____

_____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO₂, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation and Enhanced New Source Review

Source Background and Description

Source Name:	Jefferson Smurfit Corporation
Source Location:	455 West Factory Street, Wabash, Indiana 46992
County:	Wabash
Construction Permit No.:	CP-169-10358-00002
SIC Code:	2631
Permit Reviewer:	Janusz Johnson

The Office of Air Management (OAM) has reviewed an application from Jefferson Smurfit Corporation relating to the construction and operation of the following equipment:

- (a) One natural gas fired boiler with a capacity of 82.8 MMBTU/hr, designated as BO2, using #2 fuel oil as a backup fuel, and
- (b) One fuel oil tank storing #2 fuel oil, with a capacity of 20,000 gallons, designated as tank FT1.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SV1	Boilers	175	14.5	77600	400

Recommendation

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

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

A complete application for the purposes of this review was received on November 13, 1998.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (4 pages).

For rule 6-2-4, the equation for the boiler is: $Pt = 1.09/(Q)^{0.26}$

Q for the source is determined to be: $144 + 144 + 82.8 = 370.8$ MMBTU/hr

$$\begin{aligned} Pt &= 1.09 / (370.8)^{0.26} \\ &= 1.09 / 4.66 \\ &= 0.234 \text{ lb/MMBTU} \end{aligned}$$

For natural gas usage, $(7.6 \text{ lb/MMft}^3)(1 \text{ ft}^3/1050 \text{ BTU}) = 0.007 \text{ lb/MMBTU}$

For #2 fuel oil usage, $(3.3 \text{ lb/1000 gallons})(1 \text{ gallon}/0.14 \text{ MMBTU}) = 0.024 \text{ lb/MMBTU}$

These rates meet the rule requirements.

For rule 7-1.1-2, for #2 fuel oil combustion,

$Y = (71 \text{ lb/1000 gal})(1 \text{ gal} / 0.14 \text{ MMBTU}) = 0.5 \text{ lb/MMBTU}$. This boiler will meet the rule.

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	-	8.5
Particulate Matter (PM10)	-	8.5
Sulfur Dioxide (SO ₂)	-	183.9
Volatile Organic Compounds (VOC)	-	2.0
Carbon Monoxide (CO)	-	30.5
Nitrogen Oxides (NO _x)	-	51.8
Single Hazardous Air Pollutant (HAP)	-	negligible
Combination of HAPs	-	negligible

- (a) The potential emissions before control are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of sulfur dioxide, nitrogen oxides, and carbon monoxide are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wabash County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Wabash County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	170
PM10	-
SO ₂	2071.4
VOC	3.7
CO	318.7
NO _x	398.3

(The figures in this table are taken from the TSD associated with permit 169-4636, issued on 11/3/95. The numbers were noted as coming from the AIRS Quick Look report. Checking the Quick Look report dated 4/1/98, shows the same figures as reported in the TSD from 1995.)

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year .

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	8.5	8.5	< 40	2.0	30.5	18.1
PSD or Offset Significant Level	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) The sulfur dioxide is limited to less than 40 tons/yr, therefore, the PSD requirements do not apply. This limit is equivalent to 1,126,000 gallons of #2 fuel oil used per year.

For the backup fuel (#2 fuel oil), there will be a limitation set to keep the emissions below the PSD significant levels.

40 tons of SO₂ per year = (71 lb SO₂/ 1000 gal.)(X gal/yr)(1 ton/2000 lb)

$$X = (40)(2000)(1000) / (71)$$

X = 1,126,000 gallons per year

The corresponding emissions associated with this limitation would be (in tons per year):

PM = 1.8, SO₂ = 39.9, NO_x = 11.3, VOC = 0.2, and CO = 2.8

An equivalent emission condition will be created to account for the use of the natural gas and its SO₂ emissions.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-169-7148-00002) application on November 12, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application or the completed Part 70 permit.

Federal Rule Applicability

40 CFR Part 60.40c, Subpart Dc

The 82.8 MMBtu/hr boiler is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc - Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units) because it was constructed after June 9, 1989 and its maximum design heat input capacity is greater than 10 MMBtu/hr but less than 100 MMBtu/hr.

Pursuant to this subpart the owner or operator of this affected facility which combusts oil:

1. shall not combust oil in the affected facility that contains greater than 0.5 weight percent sulfur, and
2. shall not cause to be discharged into the atmosphere from the affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

Pursuant to §60.48(d), the owner or operator of each affected facility subject to the fuel oil sulfur limits under §60.42(c) shall submit quarterly reports to the Administrator. The submission of quarterly fuel usage reports associated with the No.2 fuel oil input usage limitations in the permit is considered to cover the NSPS quarterly reporting requirement.

40 CFR Part 60.110b, Subpart Kb

This 20,000 gallon fuel oil storage tank (designated FT1) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b - 60.117b, Subpart Kb - Standard of Performance for Volatile Organic Liquid Storage Vessels [including Petroleum Liquid Storage Vessels] for which construction, Reconstruction, or Modification commenced after July 23, 1984). Based on the maximum true vapor pressure of #2 fuel oil being less than 15.0 KPa, only the requirements of § 60.116b items (a) and (b) apply to this storage vessel.

State Rule Applicability

326 IAC 2-2 (PSD Requirements)

The boiler will be limited to 1,126,000 gallons of #2 fuel oil per year to keep the SO₂ emissions from exceeding the PSD significant levels.

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of VOC. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

The 82.8 MMBTU/hr natural gas fired boiler is subject to 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating). Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions shall be limited to 0.234 pounds per million BTU heat input.

Based on this calculations, the controlled potential emissions are less than the allowable emissions. Therefore, this boiler complies with the rule.

326 IAC 7-1.1-2 (Sulfur dioxide emission limitations)

Sulfur dioxide emissions shall be limited to 0.5 pounds per million BTU for distillate oil combustion. This boiler meets this rule.

326 IAC 8-4-3 (Petroleum liquid storage facilities)

This storage vessel has a capacity of 20,000 gallons. This capacity is less than the applicability of this rule, which applies to those vessels of capacity greater than 39,000 gallons. Thus, this rule does not apply.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.

Conclusion

The construction of this boiler and fuel oil tank will be subject to the conditions of the attached proposed **Construction Permit No. CP-169-10358-00002**.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation and Enhanced New Source Review

Source Name: Jefferson Smurfit Corporation
 Source Location: 455 West Factory Street, Wabash, Indiana 46992
 County: Wabash
 Construction Permit No.: CP-169-10358-00002
 SIC Code: 2631
 Permit Reviewer: Janusz Johnson

On February 2, 1999, the Office of Air Management (OAM) had a notice published in the *Wabash Plain Dealer*, Wabash, Indiana, stating that Jefferson Smurfit Corporation had applied for a construction permit to construct and operate a new 82.8 MMBTU/hr boiler and associated fuel storage tank. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 5, 1999, Jefferson Smurfit Corporation submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows (changes are bolded for emphasis):

Comment 1: Condition C.3 (a) Transfer of Permit (Page 7 of 22). There is a typographical error in this paragraph. Language from another permit ("this automatic coating operation and injection molding presses") has been inadvertently inserted instead of referencing the boiler and tank. This language should be changed.

Response 1: Condition C.3, Item (a), shall be revised as follows to correct the error:

C.3 (a) In the event that ownership of this ~~automatic coating operation and injection molding presses~~ **82.8 MMBtu per hour boiler and associated fuel storage tank** is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.

Comment 2: Condition C.13 Compliance Monitoring Plan (Pages 10 and 11 of 22). We request that the requirement for a Compliance Response Plan (Condition C.13 (a) (5)) be deleted. This requirement will involve creating, implementing, and up-dating yet another plan. No authority is cited for this requirement, and it is certainly not necessary for the equipment covered by this permit, or at a minimum, if a Compliance Response Plan must be included, Condition C.13(b) should be deleted. Failure to comply with the Compliance Response Plan should not be a separate violation of the permit. This is consistent with IDEM's rationale for not including similar language in Condition C.2, which requires a Preventive Maintenance Plan. Facility operators should be cited for violations of emission limitations; not for failure, as such, to make a specific response to a violation that did not occur.

Response 2: Jefferson Smurfit Corporation is a Part 70 major source. Review and approval of the emission units covered by the proposed permit was done under Enhanced New Source Review (ENSR) as an alternative to incorporating them into the review of the Part 70 permit application submitted by Jefferson Smurfit Corporation on November 12, 1996. This ENSR process is separate from the Part 70 Operating permit review, but does not exclude the new emission units from the requirements applicable to a Part 70 major source. Pursuant to paragraph (c) of 326 IAC 2-1-3.2 (State construction and operating permits: enhanced new source review), "Each permit issued under this rule for sources subject to 326 IAC 2-7 shall include the permit requirements established in 326 IAC 2-7-5(1), 326 IAC 2-7-5(3) through 326 IAC 2-7-5(14), and 326 IAC 2-7-6."

IDEM has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. IDEM has clarified the preventive maintenance requirements by working with sources on draft language over the past two years. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each permittee's Annual Compliance Certification. Each permittee's ability to verify continuous compliance with its air pollution control requirements is a central goal of the Title V and FESOP permit programs.

The regulatory authority for and the essential elements of a compliance monitoring plan were clarified in IDEM's Compliance Monitoring Guidance, in May 1996. IDEM originally placed all the preventive maintenance requirements in the permit section titled "Preventive Maintenance Plan." Under that section the permittee's Preventive Maintenance Plan (PMP) had to set out requirements for the inspection and maintenance of equipment both on a routine basis and in response to monitoring. Routine maintenance was a set schedule of inspections and maintenance of the equipment. The second was inspection and maintenance in response to monitoring that showed that the equipment was not operating in its normal range. This monitoring would indicate that maintenance was required to prevent the exceedance of an emission limit or other permit requirement. The maintenance plan was to set out the "corrective actions" that the permittee would take in the event an inspection indicated an "out of specification situation", and also set out the time frame for taking the corrective action. In addition, the PMP had to include a schedule for devising additional corrective actions for out of compliance situations that the source had not predicted in the PMP. All these plans, actions and schedules were part of the Preventive Maintenance Plan, with the purpose of maintaining the permittee's equipment so that an exceedance of an emission limit or violation of other permit requirements could be prevented.

After issuing the first draft Title V permits on public notice in July of 1997, IDEM received comments from members of the regulated community regarding many of the draft permit terms, including the PMP requirements. One suggestion was that the corrective action and related schedule requirements be removed from the PMP requirement and placed into some other requirement in the permit. This suggestion was based, in some part, on the desire that a permittee's maintenance staff handle the routine maintenance of the equipment, and a permittee's environmental compliance and engineering staff handle the compliance monitoring and steps taken in reaction to an indication that the facility required maintenance to prevent an environmental problem.

IDEM carefully considered this suggestion and agreed to separate the "corrective actions" and related schedule requirements from the PMP. These requirements were placed into a separate requirement, which IDEM named the Compliance Response Plan (CRP). In response to another comment, IDEM changed the name of the "corrective actions" to "response steps." That is how the present CRP requirements became separated from the PMP requirement, and acquired their distinctive nomenclature.

Other comments sought clarification on whether the failure to follow the PMP was violation of the permit. The concern was that a permittee's PMP might call for the permittee to have, for example, three "widget" replacement parts in inventory. If one widget was taken from inventory for use in maintenance, then the permittee might be in violation of the PMP, since there were no longer three widgets in inventory, as required by the PMP. Comments also expressed a view that if a maintenance employee was unexpectedly delayed in making the inspection under the PMP's schedule, for example by the employee's sudden illness, another permit violation could occur, even though the equipment was still functioning properly.

IDEM considered the comments and revised the PMP requirement so that if the permittee fails to follow its PMP, a permit violation will occur only if the lack of proper maintenance causes or contributes to a violation of any limitation on emissions or potential to emit. This was also the second basis for separating the compliance maintenance response steps from the PMP and placing them in the Compliance Response Plan (CRP). Unlike the PMP, the permittee must conduct the required monitoring and take any response steps as set out in the CRP (unless otherwise excused) or a permit violation will occur.

The Compliance Monitoring Plan is made up of the PMP, the CRP, the compliance monitoring and compliance determination requirements in section D of the permit, and the record keeping and reporting requirements in sections C and D. IDEM decided to list all these requirements under this new name, the Compliance Monitoring Plan (CMP), to distinguish them from the PMP requirements. The section D provisions set out which facilities must comply with the CMP requirement. The authority for the CMP provisions is found at 326 IAC 2-7-5(1), 2-7-5(3), 2-7-5(13), 2-7-6(1), 1-6-3 and 1-6-5.

Most permittees already have a plan for conducting preventive maintenance for the emission units and control devices. It is simply a good business practice to have identified the specific personnel whose job duties include inspecting, maintaining and repairing the emission control devices. The emission unit equipment and the emission control equipment may be covered by a written recommendation from the manufacturer set out schedules for the regular inspection and maintenance of the equipment. The permittee will usually have adopted an inspection and maintenance schedule that works for its particular equipment and process in order to keep equipment downtime to a minimum and achieve environmental compliance. The manufacturer may also have indicated, or the permittee may know from experience, what replacement parts should be kept on hand. The permittee may already keep sufficient spare parts on hand so that if a replacement is needed, it can be quickly installed, without a delay in the permittee's business activities and without an environmental violation. For the most part, the PMP can be created by combining present business practices and equipment manufacturer guidance into one document, the Preventive Maintenance Plan (PMP).

The permittee has 90 days to prepare, maintain and implement the PMP. IDEM is not going to draft the PMP. Permittees know their processes and equipment extremely well and are in the best position to draft the PMP. IDEM's air inspectors and permit staff will be available to assist the permittee with any questions about the PMP. IDEM may request a copy of the PMP to review and approve.

The Preventive Maintenance Plan requirement must be include in every applicable Title V permit pursuant to 326 IAC 2-7-5(13) and for each FESOP permit pursuant to 326 IAC 2-8-4(9). Both of those rules refer back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

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

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. The commissioner may require changes in the maintenance plan to reduce excessive malfunctions in any control device or combustion or process equipment under 326 IAC 1-6-5.

The CRP requirement of response steps and schedule requirements are another example of documenting procedures most permittees already have developed in the course of good business practices and the prevention of environmental problems. Equipment will often arrive with the manufacturer's trouble shooting guide. It will specify the steps to take when the equipment is not functioning correctly. The steps may involve some initial checking of the system to locate the exact cause, and other steps to place the system back into proper working order. Using the trouble shooting guide and the permittee's own experience with the equipment, the steps are taken in order and as scheduled until the problem is fixed.

A permittee will likely already have a procedure to follow when an unforeseen problem situation occurs. The procedure may list the staff to contact in order to select a course of action, or other step, before the equipment problem creates an environmental violation or interrupts the permittee's business process.

The Compliance Monitoring Plan (CMP) is consistent with IDEM's Compliance Monitoring Guidance released in May of 1996. The guidance discusses corrective action plans setting out the steps to take when compliance monitoring shows an out of range reading (Guidance, page 13). Some of the terminology has changed, as a result of comments from regulated sources, but the requirements in the permit do not conflict with the guidance.

No changes have been made to the condition as a result of the comments made.

Comment 3: Condition D.5.5 Testing Requirements (Page 16 of 22). As I brought to your attention in an e-mail on March 1, 1999 no specific parameter is listed for the required initial compliance stack test. This factor has made it difficult, if not impossible, to comment on this condition. We believe that, given the nature of the boiler and the fuels that will be used, no stack testing should be required for any pollutant except possibly NOx. Moreover, any testing that is imposed should track that required by IDEM for all similar sources. Jefferson Smurfit Corporation (U.S.) would therefore requests additional time to comment on this condition once IDEM has fully established the requirements and prior to final issuance of the permit.

Response 3: The intent of the testing requirements specified in Condition D.5.5 is to demonstrate compliance with the particulate matter (PM) limitation specified in Condition D.5.3 pursuant to 326 IAC 6-2-4 and the opacity limits specified in Condition D.5.4 pursuant to 40 CFR 60.40c, Subpart Dc. The first paragraph of Condition D.5.5 will be revised as follows to clarify the testing requirements:

D.5.5 Testing Requirements

Pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests **for particulate matter emissions and opacity** shall be performed for the boiler within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.

Comment 4: Condition D.5.7 Visible Emissions Notations (Page 17 or 22). Jefferson Smurfit Corporation (U.S.) would request that the existence and use of our current Continuous Opacity Monitor be substituted for this proposed language. The boiler to be constructed will utilize our current common stack. This change would then mirror an identical change to our Draft Title V Permit, mutually agreed to by Jefferson Smurfit Corporation (U.S.) and IDEM via your permit writer, Mr. Frank Castelli, who can be reached for confirmation at (516) 691-3395.

Response 4: The OAM agrees that the use of a continuous opacity monitor would be adequate to demonstrate compliance with opacity requirements for the new boiler. Condition D.5.7 (Visible Emission Notations) will be replaced with the following condition:

D.5.7 Continuous Opacity Monitor [326 IAC 3-5]

Pursuant to 326 IAC 3-5, the combined boiler Stack 1, shall continue to operate the installed continuous opacity monitor to insure compliance for the BO2 boiler with the opacity limits of 326 IAC 5-1-2 and 40 CFR 60.40c, Subpart Dc.

Additionally, Item (b) of Condition D.5.8 (Record Keeping Requirements) shall be revised as follows to be consistent with the changes to Condition D.5.7:

D.5.8 (b) To document compliance with Condition D.5.7, the Permittee shall maintain records of ~~daily visible emission notations of the boiler stack exhaust.~~ **opacity, including raw data and supporting information, from the continuous opacity monitor on Stack 1 for a minimum of five (5) years from the date of any of the following:**

- (1) a monitoring sample;**
- (2) a measurement;**
- (3) a test;**
- (4) a certification.**
- (5) a report;**
- (6) any other activity required under 326 IAC 3-5.**

Comment 5: Condition C.7 (Open Burning), C.7 [sic.] (Incineration), and C.17 (Stratospheric Ozone Protection), and C.9 (Emergency Reduction Plans) seem out of place in a construction permit for a gas/oil-fired boiler and oil storage tank. I brought this to your attention in the March 1, 1999 e-mail. Since we expect these conditions to be present in our Title V Permit as applicable to the entire facility, they can be deleted from this permit.

Response 5: Conditions C.7 (Open Burning), C.8 (Incineration), C.9 (Emergency Reduction Plans), and C.17 (Stratospheric Ozone) have been removed from the proposed permit and all subsequent conditions in Section C have been renumbered appropriately.

Comment 6: Condition C.10 Malfunction (Page 9 of 22). Please change the first sentence in Condition C.10 to make clear that only applies to malfunctions that cause emission exceedances. We suggest the following language: "When a malfunction occurs that causes an emission exceedance which lasts for over one (1) hour, said condition shall be reported . . . [etc. as in current proposed language]." The last sentence of Condition C.10 requires reporting of such malfunctions "as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence." In most situations, we envision no problem complying with this reporting requirement. However, in some cases there might be special circumstances, such as preserving the safety of employees and property, that might delay reporting. We therefore ask that this provision be worded to give the maximum possible latitude allowable under Indiana statute and regulations.

Response 6: The language of Condition C.10 (Malfunction Condition) directly reflects the wording of 326 IAC 1-6-2 (Malfunctions: notice) and the definition of "malfunction" as defined in 326 IAC 1-2-39. Review of 326 IAC 1-6-2 does not indicate that only malfunctions which cause emission exceedances are to be reported. Based on the rule, a report of a malfunction is required for any malfunction lasting more than one (1) hour in duration. Review of the requirements with respect to the time frame for reporting malfunctions does not allow latitude on that time frame because the rule specifically states, "as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence."

No changes to Condition C.10 will be made as a result of this comment.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Jefferson Smurfit Corporation

Address City IN Zip: 455 West Factory Street, Wabash, Indiana 46992

CP: 169-10358

Plt ID: 169-00002

Reviewer: jkj

Date: January 12, 1999

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

82.8

725.3

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	50.0 *see below	5.5	84.0
Potential Emission in tons/yr	2.8	2.8	0.2	18.1	2.0	30.5

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

PM emission factors are condensable and filterable.

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

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

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

See page 2 for HAPs emissions calculations.

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updated 11/98

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Jefferson Smurfit Corporation

Address City IN Zip: 455 West Factory Street, Wabash, Indiana 46992

CP: 169-10358

Plt ID: 169-00002

Reviewer: jkj

Date: January 12, 1999

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	0.0	0.0	0.0	0.7	0.0

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil**

**Company Name: Jefferson Smurfit Corporation
Address, City IN Zip: 455 West Factory Street, Wabash, Indiana 46992
CP: 169-10358
Plt ID: 169-00002
Reviewer: jkj
Date: January 12, 1999**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
82.8	5180.914286	

Emission Factor in lb/kgal	Pollutant				
	PM	SO2	NOx	VOC	CO
	3.3	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	8.5	183.9	51.8	0.9	13.0

Methodology

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

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

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

PM Emission Factor is Condensable and Filterable PM

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

See page 2 for HAPs emission calculations.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions**

**Company Name: Jefferson Smurfit Corporation
Address, City IN Zip: 455 West Factory Street, Wabash, Indiana 46992
CP: 169-10358
Pit ID: 169-00002
Reviewer: jkj
Date: January 12, 1999**

HAPs - Metals

Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	0.0	0.0	0.0	0.0

Methodology

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

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