



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Robert J. Bucko, Jr.
Bucko Construction Co., Inc.
1501 Michigan Street
Gary, Indiana 46402

Re: 089-16574
Second Significant Revision to
FESOP 089-8980-00179

Dear Mr. Bucko:

Bucko Construction Co., Inc. was issued a permit on May 7, 1998 for a stationary hot mix batch asphalt production source. A letter requesting changes to this permit was received on December 11, 2002. 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 revision consists of the addition of fuel oil as a backup fuel for the existing dryer burner. In addition, since Lake County was granted an exemption from the NSR requirements for stationary sources of NO_x under Section 182(f) of the Clean Air Act, NO_x emissions do not need to be limited to less than twenty-five (25) tons per year in order to be considered a minor source under 326 IAC 2-3 (Emission Offset) in this county which is designated as severe nonattainment for ozone. Therefore, the existing source-wide NO_x emission limit of twenty-four (24) tons per year has been increased to be less than one hundred (100) tons per year.

The following construction conditions are applicable to the proposed project:

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

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment 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 contact Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 20, or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
EAL/MES

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Gary Department of Environmental Affairs
Air Compliance Section Inspector - Rick Massoels
Compliance Branch - Karen Nowak
Administrative and Development - Lisa Lawrence
Technical Support and Modeling - Michele Boner



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**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
and ENHANCED NEW SOURCE REVIEW**

**OFFICE OF AIR QUALITY
and Gary Division of Air Pollution Control**

**Bucko Construction Co., Inc.
1501 Michigan Street
Gary, Indiana 46402**

(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 and 326 IAC 2-1-3.2, 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 089-8980-00179	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 7, 1998 Expiration Date: May 7, 2003

First Significant Permit Revision No.: 089-14545-00179, issued on January 28, 2002
First Administrative Amendment No.: 089-15916-00179, issued on September 5, 2002

Second Significant Permit Revision No.: SPR 089-16574-00179	Pages Affected: 5, 30 - 33, 33a, 33b, 39, 40, 40a
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 8, 2003



This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and the Gary Division of Air Pollution Control, and presented in the permit application.

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

The Permittee owns and operates a stationary 400 ton per hour batch mix hot asphalt production plant.

Responsible Official: Robert J. Bucko, Jr.
Source Address: 1501 Michigan Street, Gary, Indiana, 46402
Mailing Address: 890 Chase Street, Gary, Indiana, 46404
SIC Code: 2951
County Location: Lake
County Status: Primary nonattainment for carbon monoxide, particulate matter, sulfur dioxide; moderate nonattainment for particulate matter 10 microns; severe nonattainment for volatile organic compounds.
Source Status: Minor Source, Emission Offset Rules;
Minor Source, Part 70 Permit Program

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) 400 ton per hour dryer and batch mixer exhausting through stack SV#1
- (b) one (1) 150 MMBTU/hr burner firing natural gas, No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil, and exhausting through stack SV#1
- (c) one (1) 2.0 MMBTU/hr hot oil heater firing natural gas
- (d) one (1) 15,000 gallon storage tank
- (e) two (2) 30,000 gallon liquid asphalt storage tanks
- (f) one (1) 20,000 gallon liquid asphalt storage tank

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

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

- (a) natural gas fired combustion sources with heat input equal to or less than ten million Btu per hour,
- (b) combustion source flame safety purging on startup,
- (c) vessels storing lubricating oils, hydraulic oils, and machining fluids,
- (d) equipment related to manufacturing activities not resulting in the emission of HAPs (brazing equipment, cutting torches, soldering equipment, welding equipment),
- (e) closed loop heating and cooling systems,
- (f) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment

SECTION D.1 FACILITY OPERATION CONDITIONS

- | | |
|-----|--|
| (1) | one (1) 400 ton per hour dryer and batch mixer exhausting through stack SV#1 |
| (2) | one (1) 150 MMBTU/hr burner firing natural gas, No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil, and exhausting through stack SV#1 |
| (3) | one (1) 2.0 MMBTU/hr hot oil heater firing natural gas |
| (4) | one (1) portable recycled asphalt crusher, identified as CR-1, capacity: 125 tons of asphalt per hour (deemed an insignificant activity) |

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

D.1.1 Fuel Limitations [326 IAC 2-8-4] [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-8-4, the input of natural gas to the aggregate dryer burner shall be limited to 363 million cubic feet per 365-day period, rolled on a daily basis. This fuel usage limitation is equivalent to a VOC potential to emit from the aggregate dryer burner of 1.0 ton per year. Due to this usage limit, the Part 70 Permit Program (326 IAC 2-7) and Emission Offset (326 IAC 2-3) rules do not apply.
- (b) For purposes of determining compliance based on VOC emissions, each kilogallon of No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil shall be equivalent to 0.0363 million cubic feet of natural gas.
- (c) During the first 365 days of operation, natural gas consumption shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.
- (d) Pursuant to 326 IAC 2-8-4, the input of No. 4 fuel oil to the aggregate dryer burner shall be limited to 4202 kilogallons per 365-day period, rolled on a daily basis. This fuel usage limitation is equivalent to nitrogen oxides potential to emit (PTE) of 98.8 tons per 365-day period, rolled on a daily basis. Due to this usage limit, the Part 70 Permit Program (326 IAC 2-7) rules do not apply.
- (e) For purposes of determining compliance based on NO_x emissions, each million cubic feet of natural gas shall be equivalent to 4.043 kilogallons of No. 4 fuel oil each kilogallon of No. 2 fuel oil shall be equivalent to 0.5106 kilogallons of No. 4 fuel oil, and each kilogallon of No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 4 fuel oil.

D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-4-1.1]

- (a) The input of No. 2 fuel oil to the aggregate dryer burner shall be limited to 5359.4 kilogallons per 365-day period, rolled on a daily basis. This fuel usage limitation is equivalent to a SO₂ potential to emit from the aggregate dryer burner of less than twenty-five (25) tons per year.
- (b) For purposes of determining compliance based on SO₂ emissions, each million cubic feet of natural gas shall be equivalent to 0.0645 kilogallons of No. 2 fuel oil, each kilogallon of No. 4 fuel oil or No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 2 fuel oil.
- (c) The sulfur content of the No. 2 fuel oil shall be limited to 0.0657%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.
- (d) The sulfur content of the No. 4 fuel oil shall be limited to 0.0622%, which is equivalent to

SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.

- (e) The sulfur content of the No. 5 residual oil shall be limited to 0.0594%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.

Compliance with the above fuel usage limitations and sulfur content limits will ensure that the requirements of 326 IAC 7-1 and 326 IAC 7-4-1.1 do not apply.

D.1.3 Particulate Matter (PM) [326 IAC 6-1-2]

- (a) Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) particulate matter emissions from the asphalt plant shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf). This emission limitation is equivalent to 13.45 pounds per hour based on an exhaust rate of 82,892 acfm and an exhaust temperature of 350 degrees Fahrenheit.
- (b) Pursuant to 326 IAC 6-1-2(g), the one (1) portable recycled asphalt crusher, identified as CR-1 shall comply with 326 IAC 5-1 and 326 IAC 6-4.

D.1.4 Particulate Matter (PM) [326 IAC 12]

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I):

- (a) particulate matter emissions from the asphalt plant shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and
- (b) the visible emissions from the plant shall not exceed 20 percent opacity.

This emission limitation is equivalent to 17.93 pounds per hour based on an exhaust rate of 82,892 acfm and an exhaust temperature of 350 degrees Fahrenheit. Compliance with 326 IAC 6-1-2 and 326 IAC 5-1 will satisfy this rule.

D.1.5 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, emissions of particulate matter 10 microns or less in diameter (PM-10) from the aggregate dryer/mixer shall not exceed 0.1344 pounds per ton of asphalt produced, including both filterable and condensable fractions.
- (b) The source shall not produce more than one million (1,000,000) tons of asphalt concrete per 365 consecutive day period, equivalent to PM-10 emissions of 67.2 tons per year based on the 0.1344 pounds of PM-10 per ton of asphalt produced. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.6 Emission Offset Minor Limit [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-3, the production of asphalt concrete shall be limited to 2,897,195 tons per 365-day period, rolled on a daily basis.
- (b) During the first 365 days of operation, asphalt concrete production shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.

This production limitation was taken voluntarily by the company and is equivalent to particulate matter potential to emit (PTE) of 48.7 tons per 365-day period, rolled on a daily basis. Due to this production limit and D.1.3, 326 IAC 2-3 (Emission Offset) and the Part 70 (326 IAC 2-7) rules do not apply.

D.1.7 Volatile Organic Compounds (VOC)

- (a) The VOC input usage in the production of cold mix cutback asphalt shall be limited to 23.9 tons per 365 day period, rolled on a daily basis. This is equivalent to 25.16 tons of diluent used per 365-day period in the production of cutback asphalt based on 95% volatilization.
- (b) During the first 365 days of operation, the diluent usage shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.

Due to the above limit, 326 IAC 2-3 (Emission Offset) and the Part 70 rules (326 IAC 2-7) do not apply.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February, and March

D.1.9 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 this facility and any control devices.

Compliance Determination Requirements

D.1.10 Testing Requirements [326 IAC 2-8-5(1)]

During the period within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

D.1.11 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 compliance with the sulfur content limitations contained in Condition D.1.2 by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 150 million British thermal units per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.1.12 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the aggregate drum dryer and/or aggregate dryer burner are in operation.

D.1.13 Visible Emission Notations

- (a) Daily visible emission notations of the conveyers, material transfer points, aggregate storage piles, unpaved roads, and the aggregate dryer/burner stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.14 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate drum dryer and aggregate dryer burner, at least once per working shift when the dryer and/or dryer burner is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and the Gary Division of Air Pollution Control and shall be calibrated at least once every six (6) months.
- (b) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit (°F) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The

Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

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

D.1.15 Record Keeping Requirements

- (a) Production Rate -The Permittee shall maintain daily records at the source of the following values:
- (1) Amount of liquid binder used in the production of cold mix cutback asphalt;
 - (2) Average diluent content of the liquid binder; and
 - (3) Amount of asphalt concrete produced.
- (b) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC, SO₂ and NO_x emission limits established in Conditions D.1.1 and D.1.2.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel usage of each fuel used since last compliance determination period and equivalent sulfur dioxide and nitrogen oxide 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.

D.1.16 Reporting Requirements

- (a) A quarterly summary to document compliance with operation condition numbers D.1.1 and D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the amounts of fuel used and the 365 day rolling total of fuel usage in the quarter.
- (b) A quarterly summary of the information to document compliance with Condition D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) A quarterly summary to document compliance with operation condition number D.1.6 shall

be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the 365 day rolling total of asphalt concrete produced in the quarter.

- (d) A quarterly summary to document compliance with operation condition number D.1.7 shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the 365 day rolling total amount of diluent used in the production of cold mix cutback asphalt.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
 Source Address: 1501 Michigan Street, Gary, Indiana, 46402
 Mailing Address: 890 Chase Street, Gary, Indiana, 46404
 FESOP No.: F-089-8980-00179
 Facility: Aggregate dryer/mixer
 Parameter: Amount of natural gas burned (VOC)
 Limit: Less than 363 million cubic feet (MMcf) per 365-day period, rolled on a daily basis where each kilogallon of No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil shall be equivalent to 0.0363 million cubic feet of natural gas

Month: _____ Year: _____

Day	MMcf of natural gas burned (this day)	MMcf of natural gas burned (last 364 days)	MMcf of natural gas burned (365 day total)	Day	MMcf of natural gas burned (this day)	MMcf of natural gas burned (last 364 days)	MMcf of natural gas burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
 Source Address: 1501 Michigan Street, Gary, Indiana, 46402
 Mailing Address: 890 Chase Street, Gary, Indiana, 46404
 FESOP No.: F-089-8980-00179
 Facility: Aggregate dryer/mixer
 Parameter: Amount of No. 4 fuel oil burned (NO_x)
 Limit: Less than 4202 kilogallons per 365-day period, rolled on a daily basis, where each million cubic feet of natural gas shall be equivalent to 4.043 kilogallons of No. 4 fuel oil, each kilogallon of No. 2 fuel oil shall be equivalent to 0.5106 kilogallons of No. 4 fuel oil, and each kilogallon of No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 4 fuel oil

Month: _____ Year: _____

Day	kilogallons of No. 4 fuel oil burned (this day)	kilogallons of No. 4 fuel oil burned (last 364 days)	kilogallons of No. 4 fuel oil burned (365 day total)	Day	kilogallons of No. 4 fuel oil burned (this day)	kilogallons of No. 4 fuel oil burned (last 364 days)	kilogallons of No. 4 fuel oil burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
 Source Address: 1501 Michigan Street, Gary, Indiana, 46402
 Mailing Address: 890 Chase Street, Gary, Indiana, 46404
 FESOP No.: F-089-8980-00179
 Facility: Aggregate dryer/mixer
 Parameter: Amount of No. 2 fuel oil burned (SO₂)
 Limit: Less than 5359.4 kilogallons per 365-day period, rolled on a daily basis, where each million cubic feet of natural gas shall be equivalent to 0.0645 kilogallons of No. 2 fuel oil, each kilogallon of No. 4 fuel oil or No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 2 fuel oil

Month: _____ Year: _____

Day	kilogallons of No. 2 fuel oil burned (this day)	kilogallons of No. 2 fuel oil burned (last 364 days)	kilogallons of No. 2 fuel oil burned (365 day total)	Day	kilogallons of No. 2 fuel oil burned (this day)	kilogallons of No. 2 fuel oil burned (last 364 days)	kilogallons of No. 2 fuel oil burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

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

Source Name:	Bucko Construction Co., Inc.
Source Location:	1501 Michigan Street, Gary, Indiana 46402
County:	Lake
SIC Code:	2951
Operation Permit No.:	F 089-8980-00179
Significant Permit Revision No.:	SPR 089-16574-00179
Permit Reviewer:	Edward A. Longenberger

On February 24, 2003, the Office of Air Quality (OAQ) had a notice published in The Post Tribune, Merrillville, Indiana and The Times, Munster, Indiana, stating that Bucko Construction Co., Inc. had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to operate a stationary hot mix batch asphalt production source with control. The notice also stated that OAQ proposed to issue a Significant Permit Revision to a FESOP for this operation and provided information on how the public could review the proposed Significant Permit Revision to a FESOP 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 Significant Permit Revision to a FESOP should be issued as proposed.

No public comments were received, however, IDEM, OAQ wishes to provide clarification as to why the NO_x emission limitation was increased from twenty-four (24) tons per year to less than one hundred (100) tons per year:

On January 26, 1996, the U.S. EPA granted an exemption under Section 182(f) of the Clean Air Act from the New Source Review (NSR) requirements for major stationary sources of NO_x in Lake County, which is designated as severe nonattainment for ozone. The EPA approved the exemptions based on a demonstration that additional NO_x reductions would not contribute to attainment of the National Ambient Air Quality Standard (NAAQS) for ozone within the Lake Michigan Ozone Study (LMOS) modeling domain, which includes Lake County, Indiana. It is for this reason that Bucko Construction may limit NO_x emissions to less than one hundred (100) tons per year in a county that is designated as severe nonattainment for ozone, and not be considered a major source under 326 IAC 2-3 (Emission Offset). Similarly, pursuant to 326 IAC 2-7-1(22)(c)(i), this waiver allows Bucko Construction to limit NO_x emissions to less than one hundred (100) tons per year in a county that is designated as severe nonattainment for ozone, and not be considered a major source under 326 IAC 2-7 (Part 70 Permit Program).

**Indiana Department of Environmental Management
Office of Air Quality
and Gary Department of Environmental Affairs**

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

Source Background and Description

Source Name:	Bucko Construction Co., Inc.
Source Location:	1501 Michigan Street, Gary, Indiana 46402
County:	Lake
SIC Code:	2951
Operation Permit No.:	F 089-8980-00179
Operation Permit Issuance Date:	May 7, 1998
Significant Permit Revision No.:	SPR 089-16574-00179
Permit Reviewer:	Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Bucko Construction Co., Inc. relating to the addition of fuel oil as a backup fuel for the existing dryer burner.

History

Bucko Construction Co., Inc. was issued a Federally Enforceable State Operating Permit (FESOP) on May 7, 1998. On December 11, 2002, Bucko Construction Co., Inc. submitted an application to the OAQ requesting to add fuel oil as a backup fuel for the existing dryer burner, rated at 150 million British thermal units per hour.

In addition, since NO_x emissions no longer need to be limited to less than twenty-five (25) tons per year in order to be considered a minor source under 326 IAC 2-3 (Emission Offset), the source has requested that the existing source-wide NO_x emission limit of 24 tons per year be increased to less than one hundred (100) tons per year.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An application for the purposes of this review was received on December 11, 2002.

Emission Calculations

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

Potential To Emit of Revision

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

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	46.9
PM ₁₀	54.0
SO ₂	90.6
VOC	0.939
CO	23.5
NO _x	221

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E) since the potential to emit of PM, PM₁₀, NO_x and SO₂ from this revision are greater than twenty five (25) tons per year.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM ₁₀	Moderate Nonattainment
SO ₂	Primary Nonattainment
NO ₂	Attainment
Ozone	Severe Nonattainment
CO	Primary Nonattainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC emissions were

reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

- (b) **Fugitive Emissions**
 Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Since unpaved roads are not an affected facility of the applicable NSPS (40 CFR 60.90, Subpart I), fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	less than 100
PM ₁₀	less than 100
SO ₂	less than 25.0
VOC	less than 25.0
CO	less than 25.0
NO _x	less than 25.0

- (a) This existing source is not one of the 28 listed source categories. This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, no primary or moderate nonattainment pollutant is emitted at a rate of one hundred (100) tons per year more, and no severe nonattainment pollutant is emitted at a rate of twenty-five (25) tons per year or more.
- (b) These emissions are based upon the technical support documents for the previous approvals.

Potential to Emit of Revision After Issuance

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

Process/facility	Potential to Emit (tons/year)						
	PM	PM₁₀	SO₂	VOC	CO	NO_x	HAPs
Proposed Revision	46.9	54.0	Less than 25.0	Less than 1.00	23.5	Less than 98.8	-

PSD or Offset Threshold Level	100	100	100	25	100	250	-
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This revision to an existing minor stationary source is not major because the emission increase is less than the PSD or Emission Offset threshold levels. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, the PSD and Emission Offset requirements do not apply.

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

Federal Rule Applicability

- (a) There are no new New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) which are applicable as a result of this proposed revision. This asphalt production source is already subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I), because it was constructed after June 11, 1973.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability - Individual Facilities

326 IAC 2-3 (Emission Offset)

- (a) The applicant has accepted a natural gas limit to the dryer/burner of less than 363 million cubic feet per 365-day period, rolled on a daily basis. This fuel usage limitation is equivalent to a VOC potential to emit from the aggregate dryer burner of 1.0 ton per year. This limitation, along with the existing VOC limit of 23.9 tons per year from the production of cutback asphalt, will ensure that the VOC emissions from this source are less than twenty-five (25) tons per year. Therefore, the Emission Offset rules (326 IAC 2-3) do not apply. This limit will also ensure that the Part 70 rules (326 IAC 2-7) are not applicable.
- (b) For purposes of determining compliance based on VOC emissions, each kilogallon of No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil shall be equivalent to 0.0363 million cubic feet of natural gas.

326 IAC 2-8-4 (FESOP)

- (a) The applicant has accepted a No. 4 fuel oil limit to the dryer/burner of less than 4202 kilogallons per 365-day period, rolled on a daily basis, which is equivalent to an NO_x limit of less than 98.8 tons per year (see page 1 of 1 of Appendix A). The full NO_x potential emission rate of 1.2 tons per year from the one (1) hot oil heater has been assumed in computing this limit.
- (b) For purposes of determining compliance based on NO_x emissions, each million cubic feet of natural gas shall be equivalent to 4.043 kilogallons of No. 4 fuel oil, each kilogallon of No. 2 fuel oil shall be equivalent to 0.5106 kilogallons of No. 4 fuel oil, and each kilogallon of No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 4 fuel oil.

Compliance with this usage limit, and the VOC emission limitation (above), will ensure that the Part 70 Permit rules (326 IAC 2-7) are not applicable.

326 IAC 7-1.1 (Sulfur dioxide emission limitations)

The requirements of 326 IAC 7-1.1 are not applicable to this proposed revision since the potential to emit of SO₂ shall be limited to less than ten (10) pounds per hour and twenty-five (25) tons per year as follows:

- (a) The sulfur content of No. 2 fuel oil shall be limited to 0.0657%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.
- (b) The sulfur content of No. 4 fuel oil shall be limited to 0.0622%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.
- (c) The sulfur content of No. 5 residual oil shall be limited to 0.0594%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.
- (d) The applicant has accepted a No. 2 fuel oil limit to the dryer/burner of less than 5359.4 kilogallons per 365-day period, which is equivalent to an SO₂ limit of less than twenty-five (25) tons per year (see page 1 of 1 of Appendix A).

For purposes of determining compliance based on SO₂ emissions, each million cubic feet of natural gas shall be equivalent to 0.0645 kilogallons of No. 2 fuel oil, each kilogallon of No. 4 fuel oil or No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 2 fuel oil.

Compliance with the above fuel usage limitations and sulfur content limits will ensure that the requirements of 326 IAC 7-1 and 326 IAC 7-4-1.1 do not apply.

326 IAC 7-4-1.1 (Lake County sulfur dioxide emission limitations)

The requirements of 326 IAC 7-4-1.1 are not applicable to this proposed revision since the requirements of 326 IAC 7-1.1 (Sulfur dioxide emission limitations) are not applicable.

Compliance Requirements

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

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

There are no new compliance monitoring requirements applicable to this source as a result of this proposed revision.

Proposed Changes

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

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

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

- (a) one (1) 400 ton per hour dryer and batch mixer exhausting through stack SV#1
- (b) one (1) 150 MMBTU/hr burner firing natural gas, **No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil**, and exhausting through stack SV#1
- (c) one (1) 2.0 MMBTU/hr hot oil heater firing natural gas

SECTION D.1 FACILITY OPERATION CONDITIONS

(1)	one (1) 400 ton per hour dryer and batch mixer exhausting through stack SV#1
(2)	one (1) 150 MMBTU/hr burner firing natural gas, No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil , and exhausting through stack SV#1
(3)	one (1) 2.0 MMBTU/hr hot oil heater firing natural gas
(4)	one (1) portable recycled asphalt crusher, identified as CR-1, capacity: 125 tons of asphalt per hour (deemed an insignificant activity)

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

D.1.1 Nitrogen Oxides (NO_x) Fuel Limitations [326 IAC 2-8-4] [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-8-4, the input of natural gas to the aggregate dryer burner shall be limited to **363 million cubic feet** ~~82.94 MMCF~~ per 365-day period, rolled on a daily basis. **This fuel usage limitation is equivalent to a VOC potential to emit from the aggregate dryer burner of 1.0 ton per year. Due to this usage limit, the Part 70 Permit Program (326 IAC 2-7) and Emission Offset (326 IAC 2-3) rules do not apply.**
- (b) **For purposes of determining compliance based on VOC emissions, each kilogallon of No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil shall be equivalent to 0.0363 million cubic feet of natural gas.**
- (~~b~~c) During the first 365 days of operation, natural gas consumption shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.
- (d) **Pursuant to 326 IAC 2-8-4, the input of No. 4 fuel oil to the aggregate dryer burner shall be limited to 4202 kilogallons per 365-day period, rolled on a daily basis.** This fuel usage limitation is equivalent to nitrogen oxides potential to emit (PTE) of **98.8** ~~22.8~~ tons per 365-day period, rolled on a daily basis. Due to this usage limit, the Part 70 Permit Program (326 IAC 2-7) and ~~Emission Offset (326 IAC 2-3)~~ rules do not apply.
- (e) **For purposes of determining compliance based on NO_x emissions, each million cubic feet of natural gas shall be equivalent to 4.043 kilogallons of No. 4 fuel oil, each**

kilogallon of No. 2 fuel oil shall be equivalent to 0.5106 kilogallons of No. 4 fuel oil, and each kilogallon of No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 4 fuel oil.

D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-4-1.1]

- (a) **The input of No. 2 fuel oil to the aggregate dryer burner shall be limited to 5359.4 kilogallons per 365-day period, rolled on a daily basis. This fuel usage limitation is equivalent to a SO₂ potential to emit from the aggregate dryer burner of less than twenty-five (25) tons per year.**
- (b) **For purposes of determining compliance based on SO₂ emissions, each million cubic feet of natural gas shall be equivalent to 0.0645 kilogallons of No. 2 fuel oil, each kilogallon of No. 4 fuel oil or No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 2 fuel oil.**
- (c) **The sulfur content of the No. 2 fuel oil shall be limited to 0.0657%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.**
- (d) **The sulfur content of the No. 4 fuel oil shall be limited to 0.0622%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.**
- (e) **The sulfur content of the No. 5 residual oil shall be limited to 0.0594%, which is equivalent to SO₂ emissions less than ten (10) pounds per hour at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 150 million British thermal units per hour.**

Compliance with the above fuel usage limitations and sulfur content limits will ensure that the requirements of 326 IAC 7-1 and 326 IAC 7-4-1.1 do not apply.

D.1.32 Particulate Matter (PM) [326 IAC 6-1-2]

- (a) **Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) particulate matter emissions from the asphalt plant shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf). This emission limitation is equivalent to 13.45 pounds per hour based on an exhaust rate of 82,892 acfm and an exhaust temperature of 350 degrees Fahrenheit.**
- (b) **Pursuant to 326 IAC 6-1-2(g), the one (1) portable recycled asphalt crusher, identified as CR-1 shall comply with 326 IAC 5-1 and 326 IAC 6-4.**

D.1.43 Particulate Matter (PM) [326 IAC 12]

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I):

- (a) **particulate matter emissions from the asphalt plant shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and**
- (b) **the visible emissions from the plant shall not exceed 20 percent opacity.**

This emission limitation is equivalent to 17.93 pounds per hour based on an exhaust rate of 82,892

acfm and an exhaust temperature of 350 degrees Fahrenheit. Compliance with 326 IAC 6-1-2 and 326 IAC 5-1 will satisfy this rule.

D.1.54 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, emissions of particulate matter 10 microns or less in diameter (PM-10) from the aggregate dryer/mixer shall not exceed 0.1344 pounds per ton of asphalt produced, including both filterable and condensable fractions.
- (b) The source shall not produce more than one million (1,000,000) tons of asphalt concrete per 365 consecutive day period, equivalent to PM-10 emissions of 67.2 tons per year based on the 0.1344 pounds of PM-10 per ton of asphalt produced. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.65 Emission Offset Minor Limit [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-3, the production of asphalt concrete shall be limited to 2,897,195 tons per 365-day period, rolled on a daily basis.
- (b) During the first 365 days of operation, asphalt concrete production shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.

This production limitation was taken voluntarily by the company and is equivalent to particulate matter potential to emit (PTE) of 48.7 tons per 365-day period, rolled on a daily basis. Due to this production limit and D.1.3, 326 IAC 2-3 (Emission Offset) and the Part 70 (326 IAC 2-7) rules do not apply.

D.1.76 Volatile Organic Compounds (VOC)

- (a) The VOC input usage in the production of cold mix cutback asphalt shall be limited to 23.9 tons per 365 day period, rolled on a daily basis. This is equivalent to 25.16 tons of diluent used per 365-day period in the production of cutback asphalt based on 95% volatilization.
- (b) During the first 365 days of operation, the diluent usage shall be limited such that the total usage divided by the accumulated days of operation shall not exceed the limit specified.

Due to the above limit, 326 IAC 2-3 (Emission Offset) and the Part 70 rules (326 IAC 2-7) do not apply.

D.1.87 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February, and March

D.1.98 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 this facility and any control devices.

Compliance Determination Requirements

D.1.109 Testing Requirements [326 IAC 2-8-5(1)]

During the period within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

D.1.11 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 compliance with the sulfur content limitations contained in Condition D.1.2 by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 150 million British thermal units per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.1.120 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the aggregate drum dryer and/or aggregate dryer burner are in operation.

D.1.134 Visible Emission Notations

- (a) Daily visible emission notations of the conveyers, material transfer points, aggregate storage piles, unpaved roads, and the aggregate dryer/burner stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or

expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.142 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate drum dryer and aggregate dryer burner, at least once per working shift when the dryer and/or dryer burner is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and the Gary Division of Air Pollution Control and shall be calibrated at least once every six (6) months.
- (b) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit (°F) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

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

D.1.153 Record Keeping Requirements

- (a) Production Rate -The Permittee shall maintain daily records at the source of the following values:
 - (1) Amount of liquid binder used in the production of cold mix cutback asphalt;
 - (2) Average diluent content of the liquid binder; and
 - (3) Amount of asphalt concrete produced.
- (b) **To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC, SO₂ and NO_x emission limits established in Conditions D.1.1 and D.1.2.**

- (1) **Calendar dates covered in the compliance determination period;**
- (2) **Actual fuel usage of each fuel used since last compliance determination period and equivalent sulfur dioxide and nitrogen oxide 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.**

D.1.164 Reporting Requirements

- (a) A quarterly summary to document compliance with operation condition numbers **D.1.1 and D.1.2** shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the amounts of fuel used and the 365 day rolling total of fuel usage in the quarter.
- (b) A quarterly summary of the information to document compliance with Condition **D.1.54** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) A quarterly summary to document compliance with operation condition number **D.1.65** shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the 365 day rolling total of asphalt concrete produced in the quarter.
- (d) A quarterly summary to document compliance with operation condition number **D.1.76** shall be submitted to the addresses listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the 365 day rolling total amount of diluent used in the production of cold mix cutback asphalt.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
 Source Address: 1501 Michigan Street, Gary, Indiana, 46402
 Mailing Address: 890 Chase Street, Gary, Indiana, 46404
 FESOP No.: F-089-8980-00179
 Facility: Aggregate dryer/mixer
 Parameter: Amount of natural gas burned (~~NO_x~~ **VOC**)
 Limit: Less than ~~82.94~~ **363** million cubic feet (MMcf) per 365-day period, rolled on a daily basis, **where each kilogallon of No. 2 fuel oil, No. 4 fuel oil, or No. 5 residual oil shall be equivalent to 0.0363 million cubic feet of natural gas**

Month: _____ Year: _____

Day	MMcf of natural gas burned (this day)	MMcf of natural gas burned (last 364 days)	MMcf of natural gas burned (365 day total)	Day	MMcf of natural gas burned (this day)	MMcf of natural gas burned (last 364 days)	MMcf of natural gas burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
Source Address: 1501 Michigan Street, Gary, Indiana, 46402
Mailing Address: 890 Chase Street, Gary, Indiana, 46404
FESOP No.: F-089-8980-00179
Facility: Aggregate dryer/mixer
Parameter: Amount of No. 4 fuel oil burned (NO_x)
Limit: Less than 4202 kilogallons per 365-day period, rolled on a daily basis, where each million cubic feet of natural gas shall be equivalent to 4.043 kilogallons of No. 4 fuel oil, each kilogallon of No. 2 fuel oil shall be equivalent to 0.5106 kilogallons of No. 4 fuel oil, and each kilogallon of No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 4 fuel oil

Month: _____ Year: _____

Day	kilogallons of No. 4 fuel oil burned (this day)	kilogallons of No. 4 fuel oil burned (last 364 days)	kilogallons of No. 4 fuel oil burned (365 day total)	Day	kilogallons of No. 4 fuel oil burned (this day)	kilogallons of No. 4 fuel oil burned (last 364 days)	kilogallons of No. 4 fuel oil burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 and the Gary Division of Air Pollution Control**

FESOP Quarterly Report

Source Name: Bucko Construction Co., Inc.
Source Address: 1501 Michigan Street, Gary, Indiana, 46402
Mailing Address: 890 Chase Street, Gary, Indiana, 46404
FESOP No.: F-089-8980-00179
Facility: Aggregate dryer/mixer
Parameter: Amount of No. 2 fuel oil burned (SO₂)
Limit: Less than 5359.4 kilogallons per 365-day period, rolled on a daily basis, where each million cubic feet of natural gas shall be equivalent to 0.0645 kilogallons of No. 2 fuel oil, each kilogallon of No. 4 fuel oil or No. 5 residual oil shall be equivalent to 1.0 kilogallon of No. 2 fuel oil

Month: _____ Year: _____

Day	kilogallons of No. 2 fuel oil burned (this day)	kilogallons of No. 2 fuel oil burned (last 364 days)	kilogallons of No. 2 fuel oil burned (365 day total)	Day	kilogallons of No. 2 fuel oil burned (this day)	kilogallons of No. 2 fuel oil burned (last 364 days)	kilogallons of No. 2 fuel oil burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

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

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

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. **089-16574-00179**.

Appendix A: Emission Calculations

Company Name: Bucko Construction Co., Inc.
Plant Location: 1501 Michigan Street, Gary, Indiana 46402
County: Lake
SPR: 089-16574
Plt. ID: 089-00179
Date: December 11, 2002
Permit Reviewer: Edward A. Longenberger

Unrestricted Potential to Emit

Limited Emissions

(#2 oil/ >100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #2 distillate fuel oil @ 0.0657 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.3

Limited Potential to Emit based on #2 oil throughput of **5359** kilogallons/yr

150.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	* Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton		
P M:	2.0 lbs/1000 gal = <u>9.386</u> tons/yr	<u>5.36</u> tons/yr
PM-10:	3.3 lbs/1000 gal = <u>15.486</u> tons/yr	<u>8.84</u> tons/yr
S O x:	9.3 lbs/1000 gal = <u>43.782</u> tons/yr	<u>25.00</u> tons/yr
N O x:	24.0 lbs/1000 gal = <u>112.629</u> tons/yr	<u>64.3</u> tons/yr
V O C:	0.20 lbs/1000 gal = <u>0.939</u> tons/yr	<u>0.536</u> tons/yr
C O:	5.0 lbs/1000 gal = <u>23.464</u> tons/yr	<u>13.40</u> tons/yr

(#4 oil/ >100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 fuel oil @ 0.0622 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.3

Limited Potential to Emit based on #4 oil throughput of **4202.00** kilogallons/yr

150.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	* Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton		
P M:	2.0 lbs/1000 gal = <u>9.386</u> tons/yr	<u>4.202</u> tons/yr
PM-10:	3.3 lbs/1000 gal = <u>15.486</u> tons/yr	<u>6.93</u> tons/yr
S O x:	9.3 lbs/1000 gal = <u>43.784</u> tons/yr	<u>19.60</u> tons/yr
N O x:	47.0 lbs/1000 gal = <u>220.564</u> tons/yr	<u>98.7</u> tons/yr
V O C:	0.20 lbs/1000 gal = <u>0.939</u> tons/yr	<u>0.420</u> tons/yr
C O:	5.0 lbs/1000 gal = <u>23.464</u> tons/yr	<u>10.51</u> tons/yr

(#5 oil/ >100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #5 residual fuel oil @ 0.0594 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.3

Limited Potential to Emit based on #5 oil throughput of **4202.00** kilogallons/yr

150.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	* Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton		
P M:	10.0 lbs/1000 gal = <u>46.929</u> tons/yr	<u>21.01</u> tons/yr
PM-10:	11.5 lbs/1000 gal = <u>53.968</u> tons/yr	<u>24.16</u> tons/yr
S O x:	9.3 lbs/1000 gal = <u>43.765</u> tons/yr	<u>19.59</u> tons/yr
N O x:	47.0 lbs/1000 gal = <u>220.564</u> tons/yr	<u>98.7</u> tons/yr
V O C:	0.20 lbs/1000 gal = <u>0.939</u> tons/yr	<u>0.420</u> tons/yr
C O:	5.0 lbs/1000 gal = <u>23.464</u> tons/yr	<u>10.51</u> tons/yr

(gas/>100MMBTU/uncontrolled) Dryer Burner

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Limited Potential to Emit based on natural gas throughput of **363.00** MMcf/yr

150.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)	* Ef (lbs/1000 gal) = (tons/yr)
1000 Btu/cf * 2000 lbs/ton		
P M:	1.9 lbs/MMcf = <u>1.248</u> tons/yr	<u>0.345</u> tons/yr
P M-10:	7.6 lbs/MMcf = <u>4.993</u> tons/yr	<u>1.38</u> tons/yr
S O x:	0.6 lbs/MMcf = <u>0.394</u> tons/yr	<u>0.109</u> tons/yr
N O x:	190.0 lbs/MMcf = <u>124.830</u> tons/yr	<u>34.5</u> tons/yr
V O C:	5.5 lbs/MMcf = <u>3.614</u> tons/yr	<u>1.00</u> tons/yr
C O:	84.0 lbs/MMcf = <u>55.188</u> tons/yr	<u>15.2</u> tons/yr