

VIA CERTIFIED MAIL 7005 0390 0003 7115 5396

May 15, 2007

Mr. Jim Owen
Spence/Banks, Inc.
P.O. Box 659
Terre Haute, Indiana 47808-0659

Dear Mr. Owen:

Re: Exempt Construction and Operation Status
9939 S. State Road 63 - Terre Haute, IN 47802
E167-24480-00142

The application from Spence/Banks, Inc., received on March 29, 2007, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following soil remediation operation, to be located at 9939 S. State Road 63, Terre Haute, Indiana 47802 is classified as exempt from air pollution permit requirements:

The source consists of the following facilities/units at Spence/Banks, Inc. located at 9939 S. State Road 63, Terre Haute, Indiana 47802:

One Soil Vapor Extraction (SVE)/Air Sparge (AS) system enclosed within a mobile trailer. The SVE/AS system utilizes an electrically powered vacuum pump and an electrically powered air sparge compressor system to inject air below the water table. The electricity for the SVE/AS is from commercial electrical service already established at the site.

The following condition shall be applicable:

1. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate this regulation.
2. This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the IDEM, Office of Air Quality (OAQ) and the Vigo County Air Pollution Control office (VCAPC) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

//Original Signed By//

George M. Needham,
Director,
Vigo County Air Pollution Control

SBS

cc: IDEM, OAQ - Mindy Hahn

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

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Spence/Banks, Inc.
Source Location:	9939 S. State Road 63, Terre Haute, IN 47802
County:	Vigo
SIC Code:	9999 (Unclassifiable)
Exemption No.:	167-24480-00142
Permit Reviewer:	Scott Sines

The Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) have reviewed an application from the Spence/Banks, Inc. relating to the Soil Vapor Extraction (SVE)/Air Sparge (AS) system relating to the soil remediation operation.

Exempt Emission Units and Pollution Control Equipment

The source consists of the following emission unit:

One Soil Vapor Extraction (SVE)/Air Sparge (AS) system enclosed within a mobile trailer. The SVE/AS system utilizes an electrically powered vacuum pump and an electrically powered air sparge compressor system to inject air below the water table. The electricity for the SVE/AS is from commercial electrical service already established at the site.

Existing Approvals

The source has no existing approvals.

Enforcement Issues

There are no enforcement actions pending. Pursuant to 326 IAC 2-1.1-3(e)(1), this source is exempt from permitting requirements.

Emission Calculations

The soil remediation calculations submitted by the applicant have been verified and found to be accurate and correct based on the mass balance process. As this project will take two (2) years to complete, the emissions are calculated per year. The calculations are provided in Appendix A of this document (pages 1-3).

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM ₁₀	Attainment
PM _{2.5}	Attainment
SO ₂	Maintenance Attainment
NOx	Attainment
8-hour Ozone	Maintenance Attainment
CO	Attainment
Lead	Attainment

- (a) Vigo County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Vigo County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (c) Vigo County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard.
- (e) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	0.00
PM-10	0.00
SO ₂	0.00
VOC	6.48
CO	0.00
NO _x	0.00

HAPS	tons/year
Benzene	0.18
Toluene	0.62
Ethylbenzene	0.15
Total Xylenes	0.57
Naphthalene	0.13
Highest single HAP	0.62 (Toluene)
Combination of HAPs	1.65

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. The source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year.
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year.
- (c) any combination of HAPs is less than 25 tons per year.

Federal Rule Applicability

The following federal rules are applicable to the source:

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.
- (c) NESHAP 40 CFR Part 63, Subpart GGGGG (National Emission Standards for Hazardous Air Pollutants for Site Remediation) is not included for the source since the source is not a major source of HAP emissions (PTE of any single HAP is less than ten (10) tons per year and/or PTE of a combination of HAPs is less than twenty-five (25) tons per year).

State Rule Applicability - Entire Source

326 IAC 2-1.1-3 (Exemptions)

This source has the potential to emit (PTE) less than one (1) ton per year (tpy) of a single hazardous air pollutant (HAP) and two and one-half (2.5) tpy of any combination of HAPs. All other regulated pollutants are below the regulatory thresholds state in 326 IAC 2-1.1-3(e)(1). Therefore, this source is not required to apply for and obtain a registration or permit for construction and operation.

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

This source is not major because the emissions are less than the PSD major source levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants - New source toxics control)

This source is not a major source of HAPs, and will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs, therefore 326 IAC 2-4.1 does not apply.

326 IAC 2-5.1-1 (Construction of New Sources - Exemptions)

This is a new source that meets the criteria under 326 IAC 2-1.1-3, and therefore is exempt under this rule.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (c) This source is not located in the area of Vigo County referenced in 326 IAC 5-1-1(c)(8).

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4, the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located in a manner that would violate this regulation.

326 IAC 6.5-1-1 (Particulate Matter Limitations except Lake County)

Although the source is located in Vigo County, it does not have the potential to emit 100 tons per year or greater of particulate matter, nor does it have actual emissions of 10 tons or more per year of particulate matter. The source does not have any type of internal combustion engine (electric only) and is not one of the sources listed in 326 IAC 6.5-9. Therefore 326 IAC 6.5-1-1 does not apply.

326 IAC 8 (Volatile Organic Compound Rules)

This source does not fit any of the source categories in 326 IAC 8. Therefore none of the rules in Article 8 are applicable.

State Rule Applicability – Individual Facilities

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

This source does not include manufacturing processes; therefore 326 IAC 6-3 does not apply to this source.

Conclusion

The construction and operation of this Soil Vapor Extraction (SVE)/Air Sparge (AS) system relating to the soil remediation operation shall be subject to the conditions of this Exemption No.: 167-24480-00142.

Appendix A: Emissions Calculations
Contaminant Mass Calculations (Worst Case)

Company Name: Spence/Banks, Inc.
Address, City IN Zip: 9939 S. State Road 63, Terre Haute, IN 47802
Permit Number: E167-24480-00142
Pit ID: 167-00142
Reviewer: Scott Sines
Date: 4/2/2007

The data provided on pages 1 - 3 is from samples taken by ENVision Laboratories, Inc. on December 1, 2006 and provided to Creek Run L.L.C. Environmental Engineering. Creek Run L.L.C. accomplished calculations via the mass balance method, verified by VCAPC. The vacuum pump and air sparge compressor are electrically powered. Therefore, the potential to emit PM, PM10, SO₂, CO, and NO_x are 0.00 tons per year.

Free Product (Gasoline):

Gallons lost = 3,602 gallons of gasoline
Total gallons (gasoline and diesel) recovered = 3,470 gallons
Assume half of product recovered is gasoline = 1,735 gallons recovered
Gallons of gasoline still in ground = 1,867 gallons

1,867 gal x 6.41 lbs/gal (density) = 11,967 lbs (total)

Free Product (Diesel):

Gallons lost = 3,800 gallons of diesel
Total gallons (gasoline and diesel) recovered) = 3,470 gallons
Assume half of product recovered is diesel = 1,735 gallons recovered
Gallons of diesel still in ground = 2,065 gallons

2,065 gal x 7.22 lbs/gal (density) = 14, 909 lbs (total)

Adsorbed Hydrocarbons (Solid hydrocarbons adsorbed to soil hauled to landfill)

Soil transported to the landfill = 11,021.4 ft³ x 0.30 (porosity) = 3,306.42 ft³

Maximum Conc. (Gasoline range organics in soil): 1,120 ppm/1,000,000 x 3,306.42 ft³ = 3.70 ft³ x 7.62 gal/ft³ =
28.2 gal x 6.41 lb/gal = 181 lbs gasoline removed from site

1,120 ppm = concentration of gasoline in soil
3,306.42 = cubic feet of soil removed from site
7.62 gal/ft³ = gals fuel/cubic foot
6.41 lb/gal = weight of gasoline/gal (pounds)

Maximum Conc. (Extended range organics in soil): 4,247 ppm/1,000,000 x 3,306.42 ft³ = 14.04 ft³ x 7.62 gal/ft³ =
107 gal x 7.22 lb/gal = 733 lbs diesel removed from site

4,247 ppm = concentration of diesel in soil
3,306.42 = cubic feet of soil removed from site
7.62 gal/ft³ = gals fuel/cubic foot
7.22 lb/gal = weight of diesel/gal (pounds)

Appendix A: Emissions Calculations
Contaminant Mass Calculations (Worst Case)

Company Name: Spence/Banks, Inc.
Address, City IN Zip: 9939 S. State Road 63, Terre Haute, IN 47802
Permit Number: E167-24480-00142
Pit ID: 167-00142
Reviewer: Scott Sines
Date: 4/2/2007

Totals:

Free Product - gasoline (1,867 gallons) 11,967 lbs.
Gasoline bound to soil transported to landfill -181 lbs
11,786 lbs. (Gasoline equivalent = 1,839 total gallons in ground)

Free Product - diesel (2,065 gallons) 14,909 lbs.
Diesel bound to soil transported to landfill -773 lbs.
14,136 lbs. (Diesel equivalent = 1,958 total gallons in ground)

14,136 lbs. (Diesel equivalent = 1,958 total gallons in ground)
+11,786 lbs. (Gasoline equivalent = 1,839 total gallons in ground)
25,992 lbs. (Total weight of gasoline and diesel in ground)
/2000 lbs

Total VOC **12.99 (Tons Gasoline and Diesel)**
(2 year project) /2 years
6.5 (Tons VOC per year)

Appendix A: Emissions Calculations
Contaminant Mass Calculations (Worst Case)
HAP Calculations

Company Name: Spence/Banks, Inc.
Address, City IN Zip: 9939 S. State Road 63, Terre Haute, IN 47802
Permit Number: E167-24480-00142
Pit ID: 167-00142
Reviewer: Scott Sines
Date: 4/2/2007

The HAP content of fuels is included in MSDS sheets provided by the source.

Maximum HAPs percentages (conc) in gasoline:

Benzene 5%	11,786 lbs gasoline x 0.05 (conc)=	589.3 lbs
Toluene 20%	11,786 lbs gasoline x 0.2 (conc)=	2,357.2 lbs
Ethylbenzene 4%	11,786 lbs gasoline x 0.04 (conc)=	471.4 lbs
Xylene 18%	11,786 lbs gasoline x 0.18 (conc)=	2,121.5 lbs

Assumed maximum concentrations in gasoline of other HAPs detected at remediation site:

Naphthalene 2%	11,786 lbs gasoline x 0.02 (conc)=	235.7 lbs
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Maximum HAPs percentages (conc) in diesel:

Ethylbenzene 1%	14,909 lbs diesel x 0.01 (conc)=	141.4 lbs
Naphthalene 2%	14,909 lbs diesel x 0.02 (conc)=	282.8 lbs

Assumed maximum concentrations in diesel of other HAPs detected at remediation site:

Benzene 1%	14,909 lbs diesel x 0.01 (conc)=	141.4 lbs
Toluene 1%	14,909 lbs diesel x 0.01 (conc)=	141.4 lbs
Xylenes 1%	14,909 lbs diesel x 0.01 (conc)=	141.4 lbs

Total HAPs (Gasoline + Diesel)	From Gasoline	From Diesel	Total Pounds	Total Tons	Tons/year
(2 year project)					
Benzene	589.3 lbs	+ 141.4 lbs	=730.7 lbs	=0.365 tons	/2000 lbs = 0.18 tpy
Toluene	2,357.2 lbs	+ 141.4 lbs	=2,498.6 lbs	=1.25 tons	/2000 lbs = 0.62 tpy
Ethylbenzene	471.4 lbs	+ 141.4 lbs	=612.8 lbs	=0.3 tons	/2000 lbs = 0.15 tpy
Xylene	2,121.5 lbs	+ 141.4 lbs	= 2,262.9 lbs	=1.13tons	/2000 lbs = 0.57 tpy
Naphthalene	235.7 lbs	+ 282.8 lbs	=518.5 lbs	=0.26 tons	/2000 lbs = 0.13 tpy