



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 7, 2008

RE: Nugent Sand Company / 019-26202-00023

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



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April 7, 2008

Mr. Robert Holt
Nugent Sand Company (Bethlehem Plant)
1833 River Road
Louisville, KY 40206

Re: Exempt Construction and Operation Status,
019-26202-00023

Dear Mr. Robert Holt:

The application from Nugent Sand Company, received on March 3, 2008, 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 stationary dry bank sand and gravel operation located at 822 Camp Creek Road, New Washington, IN is classified as exempt from air pollution permit requirements:

One (1) hopper to conveyor belt (identified as unit #1) approved for construction in June of 2008, with a maximum throughput capacity of 3,504,000 tons per year and exhausting into the atmosphere.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (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 15 minutes (sixty (60) readings in a 6-hour period 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) a six (6) hour period.
- (2) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), 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 326 IAC 6-4.

This exemption is the first air approval issued to this source. A copy of the Exemption is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Christine Filutze, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-233-8397 or at 1-800-451-6027 (ext 38397).

Sincerely,

Original signed by

Alfred C. Dumauual, Ph. D., Section Chief
Permits Branch
Office of Air Quality

ACD/clf

cc: File - Clark County
Clark County Health Department
Air Compliance Section
Compliance Data Section
Permits Administrative and Development
Billing, Licensing and Training Section

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

Technical Support Document (TSD) for an Exemption

Source Description and Location
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Source Name:	Nugent Sand Company
Source Location:	822 Camp Creek Road, New Washington, IN 47162
County:	Clark
SIC Code:	1442
Exemption No.:	019-26202-00023
Permit Reviewer:	Christine L. Filutze

On March 3, 2008, the Office of Air Quality (OAQ) received an application from Nugent Sand Company related to the construction and operation of a dry bank sand and gravel operation.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Clark County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

- (4) 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 and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Clark 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.
- (b) PM_{2.5}
Clark County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (c) Other Criteria Pollutants
Clark 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.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Nugent Sand Company on March 3, 2008, relating to the construction and operation of a dry bank sand and gravel operation.

The following is a list of the new emission units:

- (a) One (1) hopper to conveyor belt (identified as unit #1) approved for construction in 2008, with a maximum throughput capacity of 3,504,000 tons per year and exhausting into the atmosphere.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Exemption

The following table reflects the potential to emit (PTE) of the entire source. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/Emission Unit	Potential To Emit of the Entire Source (tons/year)							Worst Single HAP
	PM	PM10*	SO ₂	NO _x	VOC	CO	Total HAPs	
Loader (uncontrolled)	0.53	0.25	-	-	-	-	-	-
<i>Fugitive Emissions Conveyor**</i>	0.25	0.08	-	-	-	-	-	-
Total PTE of Entire Source	0.78	0.33	-	-	-	-	-	-

* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

** Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2 Conveyor Transfer Point (controlled). Since the material percent moisture content estimated for this source (14%) is greater than the wet suppression moisture content of 0.55% to 2.88% for controlled sources, the controlled emission factors for PM and PM10 were used.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)
 Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
 The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 326 IAC 5-1 (Opacity Limitations)
The source is located in Clark County, Bethlehem Township. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) 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.
 - (2) 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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
The source is subject to the requirements of 326 IAC 6-4, because the conveyor has the potential to emit fugitive particulate emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), 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 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

Conclusion and Recommendation

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 March 3, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed Exemption No. 019-26202-00023. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Christine Filutze at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-8397 or toll free at 1-800-451-6027 extension (38397).
- (b) A copy of the findings is available on the Internet at: www.in.gov/idem/permits/air/pending.html.
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem/permits/guide/.

**Appendix A: Emissions Calculations
Summary Calculations**

Company Name: Nugent Sand Company (Bethlehem Plant)
Address City IN Zip: 822 Camp Creek Road, New Washington, IN 47162
Permit No: 019-26202-00023
Reviewer: Christine L. Filutze
Date: March 31, 2008

Process Description	Potential Emissions (tons/year)	
	PM	PM10
Conveyor Transfer	0.25	0.08
Total Process Emissions	0.25	0.08
Fugitive Emissions		
Loader Moves Material into Hopper	0.53	0.25
Total Fugitive Emissions	0.53	0.25
Total Potential Emissions	0.78	0.33

**Appendix A: Emissions Calculations
PM and PM10 Emissions
From Particulate and Fugitive Dust**

Company Name: Nugent Sand Company (Bethlehem Plant)
Address City IN Zip: 822 Camp Creek Road, New Washington, IN 47162
Permit No: 019-26202-00023
Reviewer: Christine L. Filutze
Date: March 31, 2008

Maximum Material Handling Annual Throughput = 3,504,000 tons/yr

Batch or Continuous Drop Operations (AP-42 Section 13.2.4)

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP-42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 1/95) are utilized.

$$E_f = k \cdot (0.0032) \cdot [(U/5)^{1.3} / (M/2)^{1.4}]$$
 where: E_f = Emission factor (lb/ton)

	Uncontrolled	
k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
U =	8.3	= annual mean wind speed (Source: NOAA, 2006*)
M** =	14.0	= material % moisture content of soil
E _f (PM) =	3.00E-04	lb PM/ton of material handled
E _f (PM10) =	1.42E-04	lb PM10/ton of material handled

Type of Activity	Number of drop points	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Loader moves material into hopper	1	0.53	0.25
Totals (tons/yr)		0.53	0.25

Methodology

Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 *Annual mean wind speed (Louisville, KY) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006
 **Moisture content (Source: AP-42 Section 13.2.4), assuming soil is similar to clay/dirt mix.

Material Conveyor Transfer Points (AP-42 Section 11.19.2)

To estimate potential fugitive dust emissions from raw material conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 11.19.2 (dated 8/04) are utilized.

Operation	Number of Units	Emission Factor for PM (lbs/ton)***	Emission Factor for PM10 (lbs/ton)***	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Conveyor	1	1.40E-04	4.60E-05	0.25	0.08
Totals (tons/yr)				0.25	0.08

Methodology

Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Emission Factor (lb/ton)] * [ton/2000 lbs]
 ***Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2 Conveyor Transfer Point (controlled).
 Table 11.19.2-2 note b - The study group of controlled sources with wet suppression had moisture ranges of 0.55 to 2.88 percent. Since the material percent moisture content estimated for this source (14%) is greater than the wet suppression moisture content of 0.55% to 2.88% for controlled sources, the controlled emission factors for PM and PM10 are used.