



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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David Foertsch
New Hope Dock Corporation d/b/a/ Ohio River Dock
PO Box 16
Lamar, IN, 47550

February 8, 2008

Re: Permit By Rule Status
147-25634-00015

Dear David Foertsch:

On December 12, 2007, New Hope Dock Corporation d/b/a/ Ohio River Dock submitted a letter with supporting data to the Office of Air Quality (OAQ) indicating that the stationary Coal and Gypsum storage and transfer facility, located at 8729 East State Route 66, Grandview, IN 45759, satisfies the criteria to operate under the provisions of 326 IAC 2-10 (Permit by Rule). Based on the data (Attachment A: Emission Calculations) and information submitted and the provisions of 326 IAC 2-10 (Permit by Rule), New Hope Dock Corporation d/b/a/ Ohio River Dock, is now operating under Permit by Rule (PBR) Status.

This PBR supersedes SSOA No. 147-8105-00015, issued on February 4, 1998.

Pursuant to 326 IAC 2-10 (Permit by Rule), this source shall comply with the following conditions:

- (a) The source limits actual emissions for every twelve (12) month period to less than twenty percent (20%) of any threshold for the following:
 - (1) A major source of regulated air pollutants, as defined by 326 IAC 2-7-1(22) (i.e., one hundred (100) tons per year of any regulated air pollutant, in all areas except areas classified as serious, severe, and extreme nonattainment for ozone).
[326 IAC 2-10-3.1(1)(A)]
 - (2) A major source of hazardous air pollutants (HAPs), as defined in Section 112 of the Clean Air Act (i.e., ten (10) tons per year of any individual HAP or twenty-five (25) tons per year of any combination of HAPs).
[326 IAC 2-10-3.1(1)(B)]
- (b) The source shall not rely on air pollution control equipment to comply with the above-mentioned limitations. [326 IAC 2-10-3.1(2)]
- (c) Not later than thirty (30) days after receipt of written request by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), or U.S. Environmental Protection Agency (EPA), the owner or operator shall demonstrate that the source is in compliance with the above-mentioned conditions. [326 IAC 2-10-4.1]
- (d) Compliance demonstration shall be based on actual emissions for the previous 12 months and may include, but is not limited to, fuel or material usage or production records. No other demonstration of compliance shall be required. [326 IAC 2-10-4.1]

This source is hereby notified that this Permit by Rule approval does not relieve the source of the responsibility to comply with the provisions of any applicable federal, state, or local requirements, such as New source Performance Standards (NSPS), 40 CFR Part 60, or National Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61 or 40 CFR Part 63. [326 IAC 2-10-5.1]

Any change or modification which will alter operations in such a way that the source will no longer comply with 326 IAC 2-10 (Permit by Rule), must obtain the appropriate approval from the OAQ under 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7, 326 IAC 2-8, or 326 IAC 2-9 before such change may occur. This source may at any time apply for a state operating permit under 326 IAC 2-6.1, a Part 70 permit under 326 IAC 2-7, a FESOP under 326 IAC 2-8, or an operating agreement under 326 IAC 2-9, as applicable. [326 IAC 2-10-1(b)]

Any violation of 326 IAC 2-10 (Permit by Rule) may result in administrative or judicial enforcement proceedings under IC 13-30-3 and penalties under IC 13-30-4, IC 13-30-5, or IC 13-30-6. [326 IAC 2-10-6.1]

If you have any questions on this matter, please contact Hannah L. Desrosiers, of my staff, at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Sincerely,

Original Signed By:
Iryn Calilung, Section Chief
Permit Branch
Office of Air Quality

IC/hld

cc: File - Spencer County
Spencer County Health Department
Air Compliance Section
IDEM Southwest Regional Office
Billing, Licensing, and Training Section

ATTACHMENT B

Ohio River Dock, Fugitive Dust Control Plan

The following information is provided as the plan for controlling fugitive dust emissions at the Ohio River Dock facility.

Barge Off Loading (15-01)

- a) The free fall distance from the offloading clam bucket to the bed of the receiving vehicle will be kept to a minimum, which will minimize the corresponding emissions.
- b) The offloading site and the haul road to the stockpile will be watered when necessary to control emissions, utilizing a water truck.
- c) Area type water spray shall be utilized when necessary in the offloading area if previous efforts have not been successful in controlling fugitive dust emissions during off loading operations.

Stockpiling (15-02)

- a) During stockpiling operations interior roads, travel ways and areas around the active stockpiles will be watered when necessary to minimize emissions, utilizing a water truck.
- b) Area type water spray will be utilized when necessary in the stockpile areas if previous efforts have not been found successful in controlling emissions.

Transferring (15-03)

- a) The area traveled by the loaders charging the hoppers will be watered when necessary to control emissions, utilizing a water truck.
- b) All conveyors and transfer points will be enclosed.
- c) An adjustable enclosed chute will be used to transfer the material from the conveyor to the barge, minimizing the free fall and the corresponding emissions.
- d) Water spray will be added at the hopper charging locations when necessary to control emissions.

Hauling on Unpaved Roads (15-03)

- a) Appropriate speed limits will be posted and enforced.
- b) A dust suppressant, calcium chloride, will be periodically applied to the access road and interior gravel roads to ensure retention of surface moisture.
- c) Water will be applied as necessary to control emissions, utilizing a water truck.

Appendix A: Emissions Calculations Emission Summary

Company Name: New Hope Dock Corporation d/b/a/ Ohio River Dock
Source Address: 8729 East State Route 66, Grandview, IN 45759
Permit Number: 147-25634-00015
Reviewer: Hannah Desrosiers
Date Received: 12/12/2007

Category	Uncontrolled Potential Emissions (tons/year)				
	Pollutant	Emissions Generating Activity			TOTAL
		Processing Handling	Storage Piles	*Unpaved Roads (fugitive)	
Criteria Pollutants	PM	40.08	5.73	229.21	45.8
	PM10	17.56	2.01	58.42	19.6
	SO2	0	0	0	0.00
	NOx	0	0	0	0.00
	VOC	0	0	0	0.00
	CO	0	0	0	0.00

Total emissions based on rated capacity at 8,760 hours/year.

* Pursuant to 326 IAC 2-2 and 326 IAC 2-7, fugitive emissions are not counted toward major source status when a source is not one (1) of the twenty eight (28) specifically regulated categories of sources and not subject to any NSPS or NESHAP as of August 07, 1980, therefore, the fugitive emissions are not included in the TOTAL uncontrolled potential emissions.

Appendix A: Emissions Calculations Material Processing and Handling

Company Name: New Hope Dock Corporation d/b/a/ Ohio River Dock
Source Address: 8729 East State Route 66, Grandview, IN 45759
Permit Number: 147-25634-00015
Reviewer: Hannah Desrosiers
Date Received: 12/12/2007

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)

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 =	10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	4.5	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
E_f (PM) =	1.92E-03	lb PM/ton of material handled
E_f (PM10) =	9.09E-04	lb PM10/ton of material handled

Maximum Throughput	lb/hr	lb/yr	ton/hr	ton/yr
Haul on unpaved roads, stockpiles & transferring	1,600,000	14,016,000,000	800	7,008,000
Barge off-loading, stockpiles & transferring	400,000	3,504,000,000	200	1,752,000
Total	2,000,000	17,520,000,000	1,000	8,760,000

Maximum Material Handling Throughput = 8,760,000 tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)
Barge off-loading: batch dropping with crane/clamshell	1.68	0.80
Truck dump of coal from barge into storage piles	1.68	0.80
Truck dump of coal and gypsum into storage piles	6.74	3.19
Front-end loader dumping material into hoppers	8.42	3.98
Conveyor dropping material onto barge	8.42	3.98
Total (tons/yr)	26.94	12.74

Methodology

Maximum Throughput (lbs/yr) = [Maximum Throughput (lbs/hr)] * [8760 (hrs/yr)]
Maximum Throughput (tons/yr) = [Maximum Throughput (lbs/hr)] / [2000 (lbs/ton)]
Maximum Throughput (tons/yr) = [Maximum Throughput (lbs/yr)] / [2000 (lbs/ton)]
Maximum Material Handling Throughput (tons/yr) = [Maximum Throughput Haul on unpaved roads, stockpiles and transferring (tons/yr)] + [Maximum Throughput Barge off-loading, stockpiles and transferring (tons/yr)]
Unlimited/Uncontrolled PTE of PM (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [E_f PM (lb PM/ton of material handled)]
Unlimited/Uncontrolled PTE of PM10 (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [E_f PM10 (lb PM10/ton of material handled)]
*Worst case annual mean wind speed (South Bend, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 11.19.2)

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

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)
Conveying	0.003	0.0011	13.14	4.82
Limited Potential to Emit (tons/yr) =			13.14	4.82

Methodology

Unlimited/Uncontrolled PTE of PM (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Uncontrolled Emission Factor for PM (lbs/ton)]
Unlimited/Uncontrolled PTE of PM10 (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Uncontrolled Emission Factor for PM10 (lbs/ton)]
Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PTE = Potential to Emit

**Appendix A: Emissions Calculations
Fugitive Dust Emissions - Material Storage Piles**

Company Name: New Hope Dock Corporation d/b/a/ Ohio River Dock
Address City IN Zip: 8729 East State Route 66, Grandview, IN 45759
Permit Number: 147-25634-00015
Reviewer: Hannah Desrosiers
Date Received: 12/12/2007

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$

where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (Ef) (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)
Coal from Barge	4.8	5.56	1.10	1.115	0.390
Coal from Trucks	4.8	5.56	3.30	3.346	1.171
Gypsum from Trucks	20	23.15	0.30	1.267	0.444
Totals				5.73	2.01

Methodology

Limited PTE of PM (tons/yr) = [Emission Factor (lb/acre/day)] * [Maximum Pile Size (acres)] * (ton/2000 lbs) * (8760 hours/yr)

Limited PTE of PM10 (tons/yr) = [Potential PM Emissions (tons/yr)] * 35%

*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PTE = Potential to Emit

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads**

Company Name: New Hope Dock Corporation d/b/a/ Ohio River Dock
Address City IN Zip: 8729 East State Route 66, Grandview, IN 45759
Permit Number: 147-25634-00015
Reviewer: Hannah Desrosiers
Date Received: 12/12/2007

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Tractor Trailer (entering - SR 66 to property line) (one-way trip)	1.0	90.2	90.2	37.7	3,400.4	2640	0.500	45	16,461
Tractor Trailer (leaving - property line to SR 66) (one-way trip)	1.0	90.2	90.2	13.4	1,208.6	2640	0.500	45	16,461
Tractor Trailer (hauling gypsum - entering - property line to stockpile) (one-way trip)	1.0	45.1	45.1	37.7	1,700.2	1954	0.370	17	6,091
Tractor Trailer (hauling gypsum - leaving - stockpile to property line) (one-way trip)	1.0	45.1	45.1	13.4	604.3	1954	0.370	17	6,091
Tractor Trailer (hauling coal - entering 1st seg) (one-way trip)	1.0	45.1	45.1	37.7	1,700.2	686	0.130	6	2,140
Tractor Trailer (hauling coal - leaving 1st seg) (one-way trip)	1.0	45.1	45.1	13.4	604.3	686	0.130	6	2,140
Tractor Trailer (hauling coal - entering 2nd seg) (one-way trip)	1.0	45.1	45.1	37.7	1,700.2	686	0.130	6	2,140
Tractor Trailer (hauling coal - leaving 2nd seg) (one-way trip)	1.0	45.1	45.1	13.4	604.3	686	0.130	6	2,140
Tractor Trailer (hauling from barge to stockpile) (one-way trip)	1.0	37.9	37.9	127.0	4,812.0	300	0.057	2	786
Tractor Trailer (hauling from stockpile to barge) (one-way trip)	1.0	37.9	37.9	77.0	2,917.5	300	0.057	2	786
CAT 992 Loader (from coal stockpile to hopper) (one-way trip)	1.0	58.0	58.0	33.9	1,965.6	400	0.076	4	1,603
CAT 992 Loader (from hopper to coal stockpile) (one-way trip)	1.0	58.0	58.0	15.0	869.8	400	0.076	4	1,603
CAT 992 Loader (from gypsum stockpile to hopper) (one-way trip)	1.0	34.2	34.2	31.0	1,061.6	400	0.076	3	947
CAT 992 Loader (from hopper to gypsum stockpile) (one-way trip)	1.0	34.2	34.2	15.0	513.7	400	0.076	3	947
Totals			711		23,663			165	60,335

Average Vehicle Weight Per Trip = $\frac{33.3}{0.23}$ tons/trip
 Average Miles Per Trip = $\frac{0.23}{1}$ miles/trip

Unmitigated Emission Factor, $E_f = k \left[\frac{s}{12} \right]^a \left[\frac{W}{3} \right]^b$ (Equation 1a from AP-42 13.2.2)

PM	PM10
4.9	1.5
4.8	4.8
0.7	0.9
33.3	33.3
0.45	0.45

where k = lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
 s = % = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant)
 a = = constant (AP-42 Table 13.2.2-2)
 W = tons = average vehicle weight (provided by source)
 b = = constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E \cdot \left[\frac{365 - P}{365} \right]$
 Mitigated Emission Factor, $E_{ext} = E \cdot \left[\frac{365 - P}{365} \right]$
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

PM	PM10
7.62	1.94
5.01	1.28
50%	50%

Unmitigated Emission Factor, $E_f =$ lb/mile
 Mitigated Emission Factor, $E_{ext} =$ lb/mile
 Dust Control Efficiency = (pursuant to control measures outlined in fugitive dust control plan)

Vehicle Information (provided by source)

Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)
Tractor Trailer (entering - SR 66 to property line) (one-way trip)	62.70	15.98	41.23	10.51	20.61	5.25
Tractor Trailer (leaving - property line to SR 66) (one-way trip)	62.70	15.98	41.23	10.51	20.61	5.25
Tractor Trailer (hauling gypsum - entering - property line to stockpile) (one-way trip)	23.20	5.91	15.25	3.89	7.63	1.94
Tractor Trailer (hauling gypsum - leaving - stockpile to property line) (one-way trip)	23.20	5.91	15.25	3.89	7.63	1.94
Tractor Trailer (hauling coal - entering 1st seg) (one-way trip)	8.15	2.08	5.36	1.37	2.68	0.68
Tractor Trailer (hauling coal - leaving 1st seg) (one-way trip)	8.15	2.08	5.36	1.37	2.68	0.68
Tractor Trailer (hauling coal - entering 2nd seg) (one-way trip)	8.15	2.08	5.36	1.37	2.68	0.68
Tractor Trailer (hauling coal - leaving 2nd seg) (one-way trip)	8.15	2.08	5.36	1.37	2.68	0.68
Tractor Trailer (hauling from barge to stockpile) (one-way trip)	2.99	0.76	1.97	0.50	0.98	0.25
Tractor Trailer (hauling from stockpile to barge) (one-way trip)	2.99	0.76	1.97	0.50	0.98	0.25
CAT 992 Loader (from coal stockpile to hopper) (one-way trip)	6.11	1.56	4.02	1.02	2.01	0.51
CAT 992 Loader (from hopper to coal stockpile) (one-way trip)	2.99	0.76	1.97	0.50	0.98	0.25
CAT 992 Loader (from gypsum stockpile to hopper) (one-way trip)	6.11	1.56	4.02	1.02	2.01	0.51
CAT 992 Loader (from hopper to gypsum stockpile) (one-way trip)	3.61	0.92	2.37	0.60	1.19	0.30
Totals	229.21	58.42	150.71	38.41	75.36	19.21

Methodology

Maximum trips per day (trip/day) = Maximum number of vehicles * Number of one-way trips per day per vehicle
 Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/day) = [Maximum trips per day (trip/day)] * [Maximum one-way distance (mi/trip)]
 Maximum one-way miles (miles/yr) = [Maximum one-way miles (miles/day)] * [365 (days/yr)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per day (trip/day)]
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit