



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: June 4, 2012

RE: GBT Holding, Inc / 163-31612-00189

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



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

June 4, 2012

Mr. Seth Carlin
GBT Holding Inc.
5401 North Highway 41
Evansville, IN 47711

Re: Exempt Construction and Operation Status,
163-31612-00189

Dear Mr. Carlin:

The application from GBT Holding Inc., received on March 14, 2012, 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 wind turbine blade molding operation located at 5401 North Highway 41, Evansville, Indiana is classified as exempt from air pollution permit requirements:

- (a) Material Preparation Area, identified as EU-1, approved for construction in 2012, with a maximum capacity of 50 lbs of fiberglass per hour (fiberglass rolls are cut using scissors for use at the component and cold molding areas), using no controls, and exhausting indoors.

Note: There are no emissions from this material preparation area.

- (b) One (1) Component Mold Area, with five (5) closed molding units, identified as EU-2, approved for construction in 2012, with a total maximum capacity of 0.027 blade per hour, used to make a total of six (6) different blade components, using no controls, and exhausting indoors.
- (c) One (1) Cold Molding Area, with two (2) closed molding units, identified as EU-3, approved for construction in 2012, with a total maximum capacity of 0.027 blade per hour, used to make four (4) different blade component and the wind turbine blades, using no controls, and exhausting indoors.
- (d) One (1) LE/TE Trimming Area, identified as EU-4, approved for construction in 2012, using hand and power tools to cut excess material and reinforced with laminates, with a maximum capacity of 6,000 lbs per blade and 0.027 blade per hour, using no controls, and exhausting indoors.
- (e) One (1) S & D Area, identified as EU-5, approved for construction in 2012, used to drill holes for blade hardware and cut end of the finished blade, with a maximum capacity of 6000 lbs per blade and 0.027 blade per hour using no controls, and exhausting indoors.
- (f) One (1) Finishing Area, identified as EU-6, approved for construction in 2012, used to prepare the blade for painting, with a maximum capacity of 0.027 blade per hour, using no controls, and exhausting indoors.
- (g) One (1) Surface Painting Area, identified as EU-7, approved for construction in 2012, using rollers to surface coat a fiberglass/resin substrate in a two part process, with a maximum capacity of 0.027 blade per hour, using no controls, and exhausting indoors.

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, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of thirty percent (30%) 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.
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.
3.
 - (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the LE/TE Trimming Area (EU-4) shall not exceed 0.76 pounds per hour when operating at a process weight rate of 0.081 tons per hour.
 - (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from S & D Area (EU-5) shall not exceed 0.76 pounds per hour when operating at a process weight rate of 0.081 tons per hour.
 - (c) The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

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 Bruce Farrar, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5401 or at 1-800-451-6027 (ext 4-5401).

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

IC/BF

cc: File - Vanderburgh County
Vanderburgh County Health Department
Compliance and Enforcement Branch
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
--

Source Name:	GBT Holding Inc.
Source Location:	5401 North Highway 41, Evansville, IN 47711
County:	Vanderburgh
SIC Code:	3087 (Custom Compounding of Purchased Plastic Resins)
Exemption No.:	163-31612-00189
Permit Reviewer:	Bruce Farrar

On March 14, 2012, the Office of Air Quality (OAQ) received an application from GBT Holding Inc. related to the construction and operation of a new wind turbine blade molding plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective January 30, 2006, for the Evansville area, including Vanderburgh County, 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 18, 2000, for the 1-hour ozone standard for the Evansville area, including Vanderburgh County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Unclassifiable or attainment effective October 27, 2011, for PM _{2.5} .	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to ozone. Vanderburgh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
 Vanderburgh County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. On November 2, 2011, the air

pollution control board passed the Southwest Indiana PM_{2.5} Redesignation emergency rule to redesignate to attainment Dubois County, Montgomery Township in Gibson County, Washington Township in Pike County, Ohio Township in Spencer County, Vanderburgh County and Warrick County. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Other Criteria Pollutants
Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other 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, hazardous air pollutants, and greenhouse gases 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 GBT Holdings Inc. on March 14, 2012, relating to the production of epoxy resin wind turbine blades and molds. During the production of the turbine blades, the same emissions units are used to make the blade and blade components, therefore maximum production is based on this bottleneck of the operation.

The following is a list of the new emission units and pollution control devices:

- (a) Material Preparation Area, identified as EU-1, approved for construction in 2012, with a maximum capacity of 50 lbs of fiberglass per hour (fiberglass rolls are cut using scissors for use at the component and cold molding areas), using no controls, and exhausting indoors.
- Note: There are no emissions from this material preparation area.
- (b) One (1) Component Mold Area, with five (5) closed molding units, identified as EU-2, approved for construction in 2012, with a total maximum capacity of 0.027 blade per hour, used to make a total of six (6) different blade components, using no controls, and exhausting indoors.
- (c) One (1) Cold Molding Area, with two (2) closed molding units, identified as EU-3, approved for construction in 2012, with a total maximum capacity of 0.027 blade per hour, used to make four (4) different blade component and the wind turbine blades, using no controls, and exhausting indoors.
- (d) One (1) LE/TE Trimming Area, identified as EU-4, approved for construction in 2012, using hand and power tools to cut excess material removed and reinforced with laminates, with a maximum capacity of 6,000 lbs per blade and 0.027 blade per hour, using no controls, and exhausting indoors.
- (e) One (1) S & D Area, identified as EU-5, approved for construction in 2012, used to drill holes for blade hardware and cut end of the finished blade, with a maximum capacity of 6000 lbs per blade and 0.027 blade per hour, using no controls, and exhausting indoors.
- (f) One (1) Finishing Area, identified as EU-6, approved for construction in 2012, used to prepare the blade for painting with a maximum capacity of 0.027 blade per hour, using no controls, and exhausting indoors.

- (g) One (1) Surface Painting Area, identified as EU-7, approved for construction in 2012, using rollers to surface coat a fiberglass/resin substrate in a two part process, with a maximum capacity of 0.027 blade per hour, using no controls, and exhausting indoors.

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 unlimited potential to emit (PTE) of the entire source before controls. 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)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Material Preparation Area/EU-1	0	0	0	0	0	0	0	0	0	0
Component Mold Area/EU-2	0	0	0	0	0	0.16	0	0	0	0
Cold Molding Area/EU-3	0	0	0	0	0	0.16	0	0	0	0
LE/TE Trimming/EU-4 and S & D Area/EU-5	0.71	0.71	0.71	0	0	0	0	0	0	0
Finishing Area/EU-6 and Surface Painting Area/EU-7	0	0	0	0	0	2.25	0	0	0.37	0.31
Total PTE of Entire Source	0.71	0.71	0.71	0.00	0.00	2.56	0.00	0.00	0.37	0.31
Exemptions Levels**	5	5	5	10	10	10	25	100,000	25	10

*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".
 **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) 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) 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.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Polymeric Coating of Supporting Substrates Facilities, 40 CFR 60, Subpart VVV (326 IAC 12), are not included in the permit, since facility does not perform onsite coating mix preparation equipment used to prepare coatings for the polymeric coating of supporting substrates.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Group I Polymers and Resins, 40 CFR 63.480, Subpart U (326 IAC 20-19), are not included in the permit, since this facility does not have an elastomer product process units (EPPU).
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Group IV Polymers and Resins, 40 CFR 63.1310, Subpart JJJ (326 IAC 20-21), are not included in the permit, since this facility does not have an thermoplastic product process units (TPPU).
- (e) 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)

- (f) 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)
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 thirty percent (30%) 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)
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.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

Component Mold Area (EU-2)

- (h) 326 IAC 8-1 (Volatile Organic Compound Rules)
Pursuant to 326 IAC 8-1-1(b), EU-2 has potential emissions of less than fifteen (15) pounds of VOC per day before add-on controls. Therefore, 326 IAC 8 does not apply.

Cold Molding Area (EU-3)

- (i) 326 IAC 8-1 (Volatile Organic Compound Rules)
Pursuant to 326 IAC 8-1-1(b), EU-3 has potential emissions less than fifteen (15) pounds of VOC per day before add-on controls. Therefore, 326 IAC 8 does not apply.

Trimming Area and S & D Area (EU-4 and EU-5)

- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from EU-4 and EU-5 shall not exceed 0.76 pounds per hour each, when operating at a process weight rate of 0.081 tons/hour, each.

$$\text{PWR} = (6,000 \text{ lbs per blade}) * (0.027 \text{ blades per hour}) = 162 \text{ lbs/hour} = 0.081 \text{ tons/hour}$$

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on the calculations, a control device is not needed to comply with this limit.

Finishing Area (EU-6)

- (k) 326 IAC 8-1 (Volatile Organic Compound Rules)
Pursuant to 326 IAC 8-1-1(b), EU-6 has potential emissions of less than fifteen (15) pounds of VOC per day before add-on controls. Therefore, 326 IAC 8 does not apply.
- (l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
EU-6 has no particulate matter (PM) emissions, therefore, 326 IAC 6-3-2 does not apply.

Surface Painting Area (EU-7)

- (m) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a)(6), the surface painting area (EU-7) is exempt from the requirements of 326 IAC 6-3-2, because application is roll coating to apply the coatings.
- (n) 326 IAC 8-2 (Surface Coating Emission Limitations)
Pursuant to 326 IAC 8-2-1(a)(4), the surface painting area (EU-7) was constructed after July 1, 1990, but has potential emissions less than fifteen (15) pounds of VOC per day before add-on controls. Also, the surface painting area (EU-7) does not perform surface coating of the types described in sections 2 through 8, 9(a)(1), and 10 through 12. Therefore, 326 IAC 8-2 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 15, 2012.

The construction and operation of this source shall be subject to the conditions of the attached proposed Exemption No. 163-31612-00189. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Bruce Farrar 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) 234-5401 or toll free at 1-800-451-6027 extension 4-5401.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (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

**Appendix A: Emission Calculations
Summary**

Company Name: GBT Holding Inc.
Address City IN Zip: 5401 North Highway 41
Permit Number: 163-31612-00189
Plt ID: 163-00189
Permit Reviewer: Bruce Farrar
Date: March 14, 2012

Uncontrolled PTE (tons/year)										
Emission Unit	PM (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs as CO2e (tons/yr)	Total HAP (tons/yr)	Single HAP (tons/yr)
EU-2	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
EU-3	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
EU-4/EU-5	0.71	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU-6/EU-7	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.37	0.30
Total:	0.71	0.71	0.71	0.00	0.00	2.56	0.00	0.00	0.37	0.30

**Appendix A: Emissions Calculations
VOC and Particulate
Component Mold Area (EU-2)**

Company Name: GBT Holding Inc.
Address City IN Zip: 5401 North Highway 41
Permit Number: 163-31612-00189
Plt ID: 163-00189
Reviewer: Bruce Farrar
Date: March 14, 2012

Material	Density (Lb/Gal)	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Transfer Efficiency
Resin MGS RIMR 135	9.6			10.00	0.027	0.00				100%
Curing Agent MGS RIMR 1366	7.9			3.40	0.027	0.00				100%
Chemlease 15 Sealer EZ	6.3	90.0%	10.00%	0.05	0.027	5.71	0.01	0.18	0.03	100%
Chemlease MPP 2180	7.03	80%	20.00%	0.01	0.027	5.62	1.52E-03	0.04	0.01	100%
Chemlease Mold Cleaner EZ	6.3	100.0%	0.00%	0.05	0.027	6.25	8.44E-03	0.20	0.04	100%
Chemlease 2166	6.1	90.0%	10.00%	0.12000	0.027	5.51	1.78E-02	0.43	0.08	100%

State Potential Emissions

0.04

0.85

0.16

METHODOLOGY

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations
VOC and Particulate
Cold Molding (EU-3)**

Company Name: GBT Holding Inc.
Address City IN Zip: 5401 North Highway 41
Permit Number: 163-31612-00189
PIt ID: 163-00189
Reviewer: Bruce Farrar
Date: March 14, 2012

Material	Density (Lb/Gal)	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Transfer Efficiency
Resin MGS RIMR 135	9.6			10.00	0.027	0.00				100%
Curing Agent MGS RIMR 1366	7.9			3.40	0.027	0.00				100%
Resin MGS BPR 135G3	11.7			20.90	0.027	0.00				100%
Curing Agent MGS BPH 137G	9.6			12.50	0.027	0.00				100%
Chemlease 15 Sealer EZ	6.3	90.0%	10.00%	0.05	0.027	5.71	0.01	0.18	0.03	100%
Chemlease MPP 2180	7.03	80%	20.00%	0.01	0.027	5.62	1.52E-03	0.04	0.01	100%
Chemlease Mold Cleaner EZ	6.3	100.0%	0.00%	0.05	0.027	6.25	8.44E-03	0.20	0.04	100%
Chemlease 2166	6.1	90.0%	10.00%	0.12	0.027	5.51	1.78E-02	0.43	0.08	100%

State Potential Emissions

0.04

0.85

0.16

METHODOLOGY

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations
LE/TE Trimming (EU-4) and S & D (EU-5)**

Company Name: GBT Holding Inc.
Address City IN Zip: 5401 North Highway 41
Permit Number: 163-31612-00189
Pit ID: 163-00189
Reviewer: Bruce Farrar
Date: March 14, 2012

Emission Unit	Capacity (lbs/hr)	Estimated Lost * Percent	PTE PM	
			(lbs/hr)	(tons/yr)
EU-4/EU-5	162	0.10%	0.16	0.71

Capacity per hour = 6,000 lbs/blade * 0.027 blades/hr

* conservative estimated lost rate of 0.1% of blade weight

METHODOLOGY

PM Emission (lb/hr) = capacity (lbs/hr) * estimated lost rate (%)

PM Emission (tons/yr) = capacity (lbs/hr) * estimated lost rate (%) * (8760 hours/ 1 year) * (1 ton/2000 lb)

Appendix A: Emissions Calculations
VOC and Particulate
Finishing Area (EU-6) and Surface Painting (EU-7)

Company Name: GBT Holding Inc.
Address City IN Zip: 5401 North Highway 41
Permit Number: 163-31612-00189
Plt ID: 163-00189
Permit Reviewer: Bruce Farrar
Date: March 14, 2012

Material	Density (Lb/Gal)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Transfer Efficiency
Finishing Area (EU-6)								
BladeRep Putty 3	15.9			0.00				
BladeRep Hardener 3	10.0			0.01				
Putty/Hardener 3¹	13.0	1.54	0.027	0.005	2.08E-04	5.00E-03	9.13E-04	100%
BladeRep Pore Filler 6	15.9			0.01				
BladeRep Hardener 6	10			0.02				
Pore Filler/Hardener 6²	12.95	0.39	0.027	0.015	1.56E-04	3.75E-03	6.85E-04	100%

Surface Coating (EU-7)

Material	Density (Lb/Gal)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Transfer Efficiency
Lead Edge Coating								
BladeRep Hardener 9	9.2			0.00				
BladeRep LEP9	12.5			0.22				
Mixed BladeRep 9³	10.9	1.38	0.027	0.11	4.11E-03	0.10	0.02	100%
Topcoat 12 RAL	11.7	5.94	0.027	3.18	5.10E-01	12.24	2.23	100%

State Potential Emissions

0.51 12.35 2.25

1. BladeRep Hardener 3 and Putty 3 are mixed together and then applied to the blade as needed. Approximately 20 lbs of the compound is used per blade.
2. BladeRep Hardener 6 and Pore Filler 6 are mixed together in a 1:1 ratio and then applied to the blade as needed. Approximately 5 lbs of the compound is used per blade.
3. BladeRep Hardener 9 and LEP 9 are mixed together in a 1:1 ratio and then applied to the leading edge of the turbine blade.

METHODOLOGY

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations

HAP Emission Calculations

Surface Painting (EU-7)

Company Name: GBT Holding Inc.

Address City IN Zip: 5401 North Highway 41

Permit Number: 163-31612-00189

Pit ID: 163-00189

Permit Reviewer: Bruce Farrar

Date: March 14, 2012

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethylbenzene	Xylene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)
Topcoat 12	11.7	5.94	0.020	5.00%	1.00%	0.30	0.06

Total State Potential Emissions **0.30** **0.06**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs



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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Seth Carlin
GBT Holdings, Inc
5401 N. Highway 41
Evansville, IN 47711

DATE: June 4, 2012

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

SUBJECT: Final Decision
Exemption
163-31612-00189

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	MIDENNEY 6/4/2012 GBT Holdings, Inc. 163-3161200189 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Seth Carlin GBT Holdings, Inc. 5401 N Highway 41 Evansville IN 47711 (Source CAATS) via confirm delivery										
2		Evansville City Council and Mayors Office 1NW MLK Blvd, Rm 302 Evansville IN 47708 (Local Official)										
3		Vanderburgh County Commissioners 1 NW MLK Blvd, Rm 305 Evansville IN 47708 (Local Official)										
4		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 (Affected Party)										
5		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 (Affected Party)										
6		Vanderburgh County Health Dept. 420 Milberry Street Evansville IN 47713-1888 (Health Department)										
7		Kim Sherman 3355 Woodview Drive Newburgh IN 47630 (Affected Party)										
8		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
9		Mr. John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)										
10		Evansville EPA 100 E. Walnut St. Suite 100, Newsome Center Evansville IN 47713 (Local Official)										
11		David Boggs 216 Western Hills Dr Mt Vernon IN 47620 (Affected Party)										
12		Kunkel Group 5401 N Hwy 41 Evansville IN 47711 (Affected Party)										
13		Berry Plastics 5401 N Hwy 41 Evansville IN 47711 (Affected Party)										
14		Whirlpool 5401 N Hwy 41 Evansville IN 47711 (Affected Party)										
15		Flanders Electric 5401 N Hwy 41 Evansville IN 47711 (Affected Party)										

Total number of pieces Listed by Sender 14	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
--	--	--	--

Mail Code 61-53

IDEM Staff	MIDENNEY 6/4/2012 GBT Holdings, Inc. 163-3161200189 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Earth Care 5401 N Hwy 41 Evansville IN 47711 (Affected Party)										
2		Seaboard System Railroad Inc. CSX 500 Water St C 910 Jacksonville FL 32202 (Affected Party)										
3		Meisler Properties, LLC 321 N Kerth Ave Evansville IN 47711 (Affected Party)										
4		Meisler Properties, LLC 1103 E Franklin St Evansville IN 47711 (Affected Party)										
5		Warehouse Services No 5, LLC PO Box 608 Mt. Vernon IN 47620 (Affected Party)										
6		Ravihi Hospitality LLC 4321 N Hwy 41 Evansville IN 47711 (Affected Party)										
7		Park 41 Partners, LLC 510 Main Street Evansville IN 47708 (Affected Party)										
8		Southern Indiana Gas & Electric PO Box 209 Evansville IN 47702 (Affected Party)										
9		Mike Connelly 550 SE 8th Street Evansville IN 47713 (Affected Party)										
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender 9	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--