



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: July 27, 2012

RE: Brevini Wind USA, Inc. / 035-32067-00090

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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Mr. Dale Harder
Brevini Wind USA, Inc.
2400 Priority Way
Yorktown, IN 47396

July 27, 2012

Re: 035-32067-00090
* First Notice-Only Change to
M035-30191-00090

Dear Mr. Harder:

Brevini Wind USA, Inc. was issued a Minor Source Operating Permit (MSOP) No. M035-30191-00090 on November 22, 2011 for a stationary gearbox manufacturing plant located at 2400 Priority Way, Yorktown, Indiana. On June 29, 2012, the Office of Air Quality (OAQ) received an application from Brevini Wind USA, Inc. requesting the following changes:

1. Brevini Wind USA, Inc. is requesting the #1 Universal Batch Quench Furnace be removed from the permit, since it has not been installed due to necessity to minimize the investment for heat treat processing until evidence of sufficient demand is clear. The removal of the furnace from the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(2)(b) and 326 IAC 2-6.1-6(5)(a). See Appendix A for the updated calculations after the removal of this unit.
2. Brevini Wind USA, Inc. is requesting the Paint Booth be removed from the permit, since it has not been installed due to lack of demand for wind turbine gear box painting. The removal of the paint booth from the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(2)(b) and 326 IAC 2-6.1-6(5)(a). See Appendix A for the updated calculations after the removal of this unit.
3. Brevini Wind USA, Inc. is requesting to construct and operate a new CNC Vertical Turning machine (CNC YV1200ATC) and a new CNC Gear Shaping Machine (CNC P800/1200ES). The new turning and shaping machines will comply with the same applicable requirements and permit terms and conditions as the existing CNC machines, but will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-7. The uncontrolled/unlimited potential to emit of the entire source will continue to be less than the threshold levels specified in 326 IAC 2-2 and 326 IAC 2-3 (see attached calculations). The addition of the new turning and shaping machines to the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(8). See Appendix A for the updated calculations after the additions of these machines.

Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) are not applicable to each of the CNC machines (CNC YV1200ATC and CNC P800/1200ES), since they each have potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

The parts to be machined are placed in the CNC machines and the part is totally enclosed in the CNC machine. During the operation, the machining interface is continuously flooded with an aqueous cutting coolant with coolant mist controlled by an electrostatic mist eliminator. The machining chips that fall off the tooling are large pieces and have negligible particulate matter (PM) emissions. Therefore, the source is able to comply with this limit.

Upon further review of the application, IDEM made the following determination:

General Source Information

Brevini USA owns and operates the following plants in Yorktown, Indiana:

- (1) Brevini Wind USA, Inc. is located at 2400 Priority Way, Yorktown, Indiana 47396, Plant ID: 035-00090;
and
- (2) BreviniUSA, Inc. is located at 14141 Brevini Drive, Yorktown, Indiana 47396, Plant ID: 035-00083.

In order to consider both plants as one single source, all three of the following criteria must be met:

- (1) The plants must have common ownership/control;
- (2) The plants must have the same SIC code; and
- (3) The plants must be located on contiguous or adjacent properties.

These plants are located 0.6 mile apart, have different SIC codes of 3566 for Brevini Wind USA, Inc. (035-00090) and 3462 for BreviniUSA, Inc. (035-00083), but are under common control. Therefore, based on this evaluation a determination has been made that these plants will not be considered one (1) source, as defined by 326 IAC 2-7-1(22), under this MSOP Notice-Only Change No. 035-32067-00090, they are not considered one source since they are not located on contiguous or adjacent properties and do not have the same SIC code. The source has been issued a separate MSOP (035-30191-00090) for Brevini Wind USA, Inc. and a SSOA (035-27751-00083) for BreviniUSA, Inc.

Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby revised as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

...

A.2 Emission Units and Pollution Control Equipment Summary

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

...

- (g) **One (1) YOU JI YV1200ATC CNC vertical turning/machining center, identified as CNC YV1200ATC, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;**
- (h) **One (1) Gleason P800/1200ES CNC P800/1200ES gear shaping machine, identified as CNC P800/1200ES, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;**
- (gi) ~~Two (2)~~ **One (1) Universal Batch Quench Furnaces with integral Oil Quenches, identified as #1 UBQ and #2 UBQ, rated at 1.8 MMBtu/hr each, each with a 9,000 gallon quench tank and a maximum throughput rate of 4.40 tons per 24 hour cycle each;**
- (hj) One (1) AFC-Holcroft UBT temper furnaces, identified as #1 TF, approved for construction in 2011, using a natural gas-fired heater rated at 0.8 MMBtu/hr, with a throughput of 1.83 tons per hour with CO emissions controlled by a natural gas-fired afterburner, exhausting to a stack;
- (ik) One (1) AFS-Holcroft Endothermic Generator, identified as #1 EG, rated a 0.2 MMBtu/hr;
- (jl) One (1) Guyson shot blast using steel shot, identified as Shot Blast, approved for construction in 2011, controlled by a cartridge collector and rated at 4,000 pound per batch or 8,000 lb/hr;

- ~~(k)~~ One (1) paint booth, identified as Paint Booth, approved for construction in 2011, using a natural gas-fired heater rated at 2.44 MMBtu/hr, controlled by particulate filters and activated carbon with a exhaust system rated at 24,000 cfm;
- ~~(lm)~~ Two (2) natural gas-fired area heaters, identified as #1 and #2 , approved for construction in 2011, rated at 0.84 MMBtu/hr and 1.68 MMBtu/hr, respectively using natural gas;
- ~~(mn)~~ One (1) machined-part parts washer, identified as Spray Dunk Washer #1 SD, approved for construction in 2011, with a 1,500 tank capacity, using less than one hundred forty-five (145) gallons of water based cleaner per twelve (12) consecutive months, with an electric heater rated at 0.2 MMBtu/hr ,
- ~~(no)~~ One (1) machined-parts washer, identified as Final Parts Washer #1FP, approved for construction in 2011, with a 1,320 gallon tank capacity, using less than one hundred forty-five (145) gallons of water based cleaner per twelve (12) consecutive months, with an electric heater rated at 0.2 MMBtu/hr;
- ~~(op)~~ One (1) Main gearbox 6.4 MW test bench driven by an electric motor, approved for construction in 2011.

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

...

- (g) One (1) YOU JI YV1200ATC CNC vertical turning/machining center, identified as CNC YV1200ATC, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;**
- (h) One (1) Gleason P800/1200ES CNC P800/1200ES gear shaping machine, identified as CNC P800/1200ES, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

...

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 are not applicable to each of the CNC machines (CNC VCE 2800, CNC P2400, CNC P1600, CNC P1600G, and CNC RVU 900, **CNC YV1200ATC, and CNC P800/1200ES**), since they each have potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

...

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

~~Emissions Unit Description:~~

- ~~(k) One (1) paint booth, identified as Paint Booth, approved for construction in 2011, using a natural gas-fired heater rated at 2.44 MMBtu/hr, controlled by particulate filters and activated carbon with a exhaust system rated at 24,000 cfm;~~

~~(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)~~

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3]

~~Pursuant to 326 IAC 6-3-2(d), particulate from the one (1) paint booth shall be controlled by dry particulate filters, waterwash, or an equivalent control device, subject to the following:~~

- ~~(1) The source shall operate the control device in accordance with manufacturer's specifications.~~
- ~~(2) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observations:
 - ~~(A) Repair the control device so that no overspray is visible detectable at the exhaust or accumulates on the ground.~~
 - ~~(B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.~~~~

~~If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.~~

SECTION D.43 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (gi) ~~Two (2) One (1) Universal Batch Quench Furnaces with integral Oil Quenches, identified as #1 UBQ and #2 UBQ, rated at 1.8 MMBtu/hr each, each with a 9,000 gallon quench tank and a maximum throughput rate of 4.40 tons per 24 hour cycle each;~~

...

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.43.1 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the ~~two (2) one (1) Universal Batch Quench Furnaces with integral Oil Quenches, identified as #1 UBQ and #2 UBQ,~~ and the one (1) AFC-Holcroft UBt temper furnace, identified as #1TF. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plans required by this condition.

Compliance Determination Requirements

D.43.2 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1]

Not later than one hundred eighty (180) days after the issuance date of this permit, Permit No. M035-30191-00030, the Permittee shall perform VOC and HAP, testing from ~~one of the two (2) one (1) Universal Batch Quench Furnaces with integral Oil Quenches,~~ utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

...

Upon further review, IDEM, OAQ has decided to make the following changes to the permit.

1. The Greenhouse Gas calculations have been updated because the original calculations contained two (2) electrical units (#1 Spray Dunk Washed and #1 Final Parts Washer). These units were not producing any Greenhouse Gas emissions and have been removed from the calculations.

This did not require any changes to the permit.

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit 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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Joshua Levering, of my staff, at 317-234-6543 or 1-800-451-6027, and ask for extension 4-6543.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit and Calculations

IC/JL

cc: File - Delaware County
Delaware County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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**New Source Construction and Minor Source Operating
Permit
OFFICE OF AIR QUALITY**

**Brevini Wind USA Inc.
2400 Priority Way
Yorktown, Indiana 47396**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M035-30191-00090	
Issued by: ORIGINAL SIGNED BY Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: November 22, 2011 Expiration Date: November 22, 2016

First Notice-Only Change No.: M035-32067-00090	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 27, 2012 Expiration Date: November 22, 2016

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary gear box for wind turbines manufacturing plant.

Source Address:	2400 Priority Way, Yorktown, Indiana 47396
General Source Phone Number:	(765) 759-2128
SIC Code:	3566 (Speed Changers, Industrial High-Speed Drives, and Gears)
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) Dorries-Schamann VCE 2800/265 vertical turning/machining center, identified as CNC VCE 2800, approved for construction in 2011, with a maximum capacity of 0.375 tons per hour;
- (b) One (1) Gleason P2400 CNC gear hobbing machine, identified as CNC P2400, approved for construction in 2011, controlled by a electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (c) One (1) Gleason P1600 CNC gear hobbing machine, identified as CNCP 1600, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hours
- (d) One (1) Gleason P2400G CNC gear grinding machine, identified as CNC P2400G, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (e) One (1) Gleason P1600G CNC gear grinding machine, identified as CNC P1600G, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (f) One (1) Berthiez RVU 900/80 CNC vertical grinding machine, identified as CNC RVU 900, approved for construction in 2011, with a maximum capacity of 0.375 tons per hour;
- (g) One (1) YOU JI YV1200ATC CNC vertical turning/machining center, identified as CNC YV1200ATC, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;

- (h) One (1) Gleason P800/1200ES CNC P800/1200ES gear shaping machine, identified as CNC P800/1200ES, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;
- (i) One (1) Universal Batch Quench Furnace with integral Oil Quench, identified as #2 UBQ, rated at 1.8 MMBtu/hr, with a 9,000 gallon quench tank and a maximum throughput rate of 4.40 tons per 24 hour cycle;
- (j) One (1) AFC-Holcroft UBT temper furnaces, identified as #1 TF, approved for construction in 2011, using a natural gas-fired heater rated at 0.8 MMBtu/hr, with a throughput of 1.83 tons per hour with CO emissions controlled by a natural gas-fired afterburner, exhausting to a stack;
- (k) One (1) AFS-Holcroft Endothermic Generator, identified as #1 EG, rated a 0.2 MMBtu/hr;
- (l) One (1) Guyson shot blast using steel shot, identified as Shot Blast, approved for construction in 2011, controlled by a cartridge collector and rated at 4,000 pound per batch or 8,000 lb/hr;
- (m) Two (2) natural gas-fired area heaters, identified as #1 and #2 , approved for construction in 2011, rated at 0.84 MMBtu/hr and 1.68 MMBtu/hr, respectively using natural gas;
- (n) One (1) machined-part parts washer, identified as Spray Dunk Washer #1 SD, approved for construction in 2011, with a 1,500 tank capacity, using less than one hundred forty-five (145) gallons of water based cleaner per twelve (12) consecutive months, with an electric heater rated at 0.2 MMBtu/hr ,
- (o) One (1) machined-parts washer, identified as Final Parts Washer #1FP, approved for construction in 2011, with a 1,320 gallon tank capacity, using less than one hundred forty-five (145) gallons of water based cleaner per twelve (12) consecutive months, with an electric heater rated at 0.2 MMBtu/hr;
- (p) One (1) Main gearbox 6.4 MW test bench driven by an electric motor, approved for construction in 2011.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M035-30191-00090, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.6 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.7 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.8 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.9 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M035-30191-00090 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.13 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.14 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.15 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.16 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.17 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.18 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.19 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.20 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee 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 (Fugitive Dust Emissions).

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.9 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) Dorries-Schamann VCE 2800/265 vertical turning/machining center, identified as CNC VCE 2800, approved for construction in 2011, with a maximum capacity of 0.375 tons per hour;
- (b) One (1) Gleason P2400 CNC gear hobbing machine, identified as CNC P2400, approved for construction in 2011, controlled by a electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (c) One (1) Gleason P1600 CNC gear hobbing machine, identified as CNCP 1600, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (d) One (1) Gleason P2400G CNC gear grinding machine, identified as CNC P2400G, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (e) One (1) Gleason P1600G CNC gear grinding machine, identified as CNC P1600G, approved for construction in 2011, controlled by an electrostatic mist eliminator, with a maximum capacity of 0.375 tons per hour;
- (f) One (1) Berthiez RVU 900/80 CNC vertical grinding machine, identified as CNC RVU 900, approved for construction in 2011, with a maximum capacity of 0.375 tons per hour;
- (g) One (1) YOU JI YV1200ATC CNC vertical turning/machining center, identified as CNC YV1200ATC, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;
- (h) One (1) Gleason P800/1200ES CNC P800/1200ES gear shaping machine, identified as CNC P800/1200ES, approved for construction in 2012, with a maximum capacity of 0.37 tons per hour;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 are not applicable to each of the CNC machines (CNC VCE 2800, CNC P2400, CNC P1600, CNC P1600G, CNC RVU 900, CNC YV1200ATC, and CNC P800/1200ES), since they each have potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (I) One (1) Guyson shot blast using steel shot, identified as Shot Blast, approved for construction in 2011, controlled by a cartridge collector and rated at 4,000 pound per batch or 8,000 lb/hr;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.2.1 PSD Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the particulate matter (PM) emissions from the shot blast operation (after control) shall not exceed 56 pounds per hour.

Compliance with this limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total emissions of PM to less than two hundred and fifty (250) tons per year and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.2.2 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the shot blast operation shall not exceed 10.38 pounds per hour when operating at a process weight rate of 4 tons per 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:

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

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the one (1) guyson shot blast using steel shot and its cartridge collector. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plans required by this condition.

Compliance Determination Requirements

D.2.4 Particulate Control

In order to comply with Conditions D.2.1 and D.2.2, the cartridge collector shall be in operation and control particulate matters emissions from the one (1) shot blast unit at all times that the one (1) shot blast unit is in operation.

D.2.5 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1]

Not later than one hundred eighty (180) days after the issuance date of this permit, Permit No. M035-30191-00030, the Permittee shall perform PM, testing of the shot blast utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.6 Visible Emissions Notations

- (a) Daily visible emission notations of the one (1) guyson shot blast using steel shot and its cartridge collector shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.7 Record Keeping Requirements

- (a) To document the compliance status with Condition D.2.5, the Permittee shall maintain daily records of the visible emission notations of the cartridge collector. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) One (1) Universal Batch Quench Furnace with integral Oil Quench, identified as #2 UBQ, rated at 1.8 MMBtu/hr, with a 9,000 gallon quench tank and a maximum throughput rate of 4.40 tons per 24 hour cycle;
- (j) One (1) AFC-Holcroft UBT temper furnaces, identified as #1 TF, approved for construction in 2011, using a natural gas-fired heater rated at 0.8 MMBtu/hr, with a throughput of 1.83 tons per hour with CO emissions controlled by a natural gas-fired afterburner, exhausting to a stack;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the one (1) Universal Batch Quench Furnace with integral Oil Quench, identified as #2 UBQ, and the one (1) AFC-Holcroft UBT temper furnace, identified as #1TF. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plans required by this condition.

Compliance Determination Requirements

D.3.2 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1]

Not later than one hundred eighty (180) days after the issuance date of this permit, Permit No. M035-30191-00030, the Permittee shall perform VOC and HAP, testing from the one (1) Universal Batch Quench Furnace with integral Oil Quench, utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Brevini Wind USA Inc.
Address:	2400 Priority Way
City:	Yorktown, Indiana 47396
Phone #:	(765) 759-2128
MSOP #:	M035-30191-00090

I hereby certify that Brevini Wind USA Inc. is :

still in operation.

no longer in operation.

I hereby certify that Brevini Wind USA Inc. is :

in compliance with the requirements of MSOP M035-30191-00090.

not in compliance with the requirements of MSOP M035-30191-00090.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Mail to: Permit Administration and Support Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Brevini Wind USA Inc.
2400 Priority Way
Yorktown, Indiana 47396

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Brevini Wind USA Inc., 2400 Priority Way, Yorktown, Indiana 47396, completed construction of the gear box for turbines manufacturer on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on February 8, 2011 and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M035-30191-00090, Plant ID No. 035-00090 issued on _____.
5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature _____
Date _____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana
on this _____ day of _____, 20____. My Commission expires: _____.

Signature _____
Name _____ (typed or printed)

Appendix A: Emissions Calculations

Company Name: Brevini Wind USA Inc
 Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
 Permit No: M035-32067-00090
 Reviewer: JL
 Date: July 2012

Uncontrolled Emissions

Emission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HAPs	Worst Case Single HAP
CNC YV1200ATC, P800/1200ES, CNC VCE 2800, CNC P2400, CNC P1600, CNC P2400G, CNC P1600G, and CNC P1600G/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Quench Furnaces	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.04	0.018 Benzene
Temper Furnace	0.00	0.00	0.00	0.00	0.00	0.00	63.42	NA	0.00	0.00 --
Shot Blast	297.84	29.78	29.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Natural Gas Combustion	0.04	0.17	0.17	0.01	2.28	0.13	1.92	2758	0.04	0.04 Hexane
Parts Washers	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00 ---
Paved Roads	1.08	0.29	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Total	298.97	30.25	30.09	0.01	2.28	1.20	65.34	2758	0.09	0.04 Hexane

Limited Uncontrolled Emissions

Emission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HAPs	Worst Case Single HAP
CNC YV1200ATC, P800/1200ES, CNC VCE 2800, CNC P2400, CNC P1600, CNC P2400G, CNC P1600G, and CNC P1600G/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Quench Furnaces	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.04	0.02 Benzene
Temper Furnace	0.00	0.00	0.00	0.00	0.00	0.00	63.42	NA	0.00	0.00 --
Shot Blast	245.28	29.78	29.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Natural Gas Combustion	0.04	0.17	0.17	0.01	2.28	0.13	1.92	2758	0.04	0.04 Hexane
Parts Washer	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00 ---
Paved Roads	1.08	0.29	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Total	246.41	30.25	30.09	0.01	2.28	1.20	65.34	2758	0.09	0.04 Hexane

Controlled Emissions

Emission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HAPs	Worst Case Single HAP
CNC YV1200ATC, P800/1200ES, CNC VCE 2800, CNC P2400, CNC P1600, CNC P2400G, CNC P1600G, and CNC P1600G/20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Quench Furnaces	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.04	0.018 Benzene
Temper Furnace	0.00	0.00	0.00	0.00	0.00	0.00	1.27	97.66	0.00	0.00 --
Shot Blast	2.98	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00 --
Natural Gas Combustion	0.04	0.17	0.17	0.01	2.28	0.13	1.92	2758	0.04	0.04 Hexane
Parts Washer	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00 ---
Paved Roads	1.08	0.29	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ---
Total	4.10	0.76	0.60	0.01	2.28	1.20	3.19	2856	0.09	0.04 Hexane

New Emission Units are in **BOLD**.

* The particulate emissions for the CNC machines are negligible, because the metal part is taken off in large pieces in an enclosed CNC machine. The electrostatic mist eliminator floods the enclosed machine with an aqueous cutting coolant to eliminate over heating of the CNC machine and metal part.

Appendix A: Emissions Calculations

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Process	Process Rates (ton/yr)	VOC (lbs/ton) Metal ¹	Process Weight (tons/day)	Uncontrolled VOC (lbs/day)	Uncontrolled VOC ² (tons/yr)
#2 BQF, Universal Batch Quench Furnaces with Integral Oil Quench	1,606.00	0.671	4.40	2.95	0.54
TOTAL				2.95	0.54

HAPs

Process	Formaldehyde (lbs/ton) Metal ¹	Aniline (lbs/ton) Metal ¹	Benzene (lb/ton) Metal ¹	Formaldehyde uncontrolled VOC (ton/yr)	Anilin uncontrolled (tons/yr)	Benzene uncontrolled (tons/yr)	Total uncontrolled HAPs (ton/yr)
#2 BQF, Universal Batch Quench Furnaces with Integral Oil Quench	0.016	0.015	0.0223	0.013	0.012	0.018	0.043
Totals						0.018	0.043

¹ Emissions rate submitted by source, they are based on stack tests of a continuous oil quenching operations. These stack tests were not submitted or approved by IDEM.

² The Quench Furnaces are an enclosed unit. VOC emission are captured 100%

Process rate for furnace and oil quench is 4.4 tons of metal per 24 hours cycle multiplied by 365 days per year

METHODOLOGY

Process Weight (tons/day) = Process weight (ton/yr) /365
 Uncontrolled VOCs (lb/day) = VOC (lb/ton Metal) * Process Weight (ton/day)
 Uncontrolled VOCs (ton/yr) = Uncontrolled VOCs (lb/day) * 365 / (1 ton/2000 lb)
 Uncontrolled HAPs (ton/yr) = HAP (lb/ton) * Process Weight (ton/day) *365 / (1 tons/2000 lb)
 Total uncontrolled HAP (ton/yr) = SUM of all HAPs (ton/yr)

Appendix A: Emissions Calculations

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Potential Emissions from #1 TF Temper Furnace Atmosphere

Pollutant	Atmosphere cubic foot/hr at 25C	CO % of Atmosphere ¹	CO (cubic foot/hr)	Uncontrolled CO (lbs/hr)	Process Rate (tons/24 hours)	Uncontrolled CO (tons/yr)	Capture Efficiency (%)	Control Efficiency ² (%)	Controlled CO (tons/yr)
Carbon Monoxide	992.90	20.40%	202.55	14.48	4.40	63.42	100.00%	98.00%	1.27

Note: Natural gas is combusted with limited oxygen and catalyst to produce a highlevel of carbon monoxide (CO) in the endothermic generator (# 1 EG, AFC-Holcraft 3500). This CO rich gas is used to provide an atmosphere for the #1 tempering furnace. The exhaust from the furnace uses an afterburner to oxidize the CO prior to being emitted from the furnace. The endothermic generator to burn off 20% of generator output under the emergency conditions

Note 1: The per cent CO used is from the supplier (AFC-Holcroft for EZ-3500 Endothermic Generator)

Note 2: The control efficiency used for the afterburner is from EPA -42, 13.5 Industrial Flare:

Potential Emissions of Carbon Dioxide (CO₂) Generated by Combusting CO in the Afterburner

Pollutant	CO Combusted in the Afterburner (tons/yr)	CO ₂ Generated by the Afterburner (tons/yr)
Carbon Dioxide (CO ₂)	62.15	97.66

METHODOLOGY

CO (CFH) = Atmosphere CFH at 25C *% CO

Uncontrolled CO (lbs/hr) = CO (Cubic Foot/hr) * Liter/CF(28.3168) = (5,735.40) Liters/hr CO / One Mole of Gas (L/mole@25C (24.465) = (234.43) * CO Mol Wt (gm/mole) (28.011) = gm/hr CO (6,566.70) / gm/lb (453.59)

Uncontrolled CO (tons/yr) = Uncontrolled CO (lbs/hr) * 8,760 (hrs/yr) / 2000 (lbs/ton)

Controlled CO (ton/yr) = Uncontrolled CO (ton/yr) * Capture Efficiency (%) * (1-Control Efficiency(%))

CO Combusted in the Afterburner (tons/yr) = [Uncontrolled CO (tons/yr)] - [Controlled CO (tons/yr)]

CO₂ Generated by the Afterburner (tons/yr) = [CO Combusted in the Afterburner (tons/yr)] * [Molecular Weight of CO₂ (44.0095 lb/lbmol) / Molecular Weight of CO (28.0101 lb/lbmol)] * [1 lbmol CO₂ / lbmol CO]

**Appendix A: Emissions Calculations
Shot Blast**

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Unlimited/Uncontrolled PM/PM10/PM2.5

Material	Process Rates (ton/yr)	Process Rates (ton/hr)	PM Emission Factor (lb/ton metal throughput) ¹	PM10/PM2.5 Emission Factor (lb/ton metal throughput) ¹	Uncontrolled PM (lbs/hr)	Uncontrolled PM (tons/yr)	Uncontrolled PM10/PM2.5 (ton/yr)	Capture Efficiency (%)	Control Efficiency (%)	Controlled PM (lb/hr)	Controlled PM (ton/yr)	Controlled PM10/PM2.5 (ton/yr)
Shot Blast	35,040.00	4.00	17.00	1.70	68.00	297.84	29.78	100.00%	99.00%	0.68	2.98	0.30

HAPs

Material	Process Rates (ton/yr)	Process Rates (ton/hr)	Mn % of PM ²	Pb% of PM ²	Uncontrolled Mn (ton/yr)	Uncontrolled Pb (tons/yr)	Controlled Mn (ton/yr)	Controlled Pb (ton/yr)	Uncontrolled Total HAPs (ton/yr)	Controlled Total HAPs (ton/yr)
Shot Blast	35,040.00	4.00	0.877%	0.097%	2.61	0.29	0.03	2.89E-03	2.90	0.03

Limited PM

Limited PTE of PM (lbs/hr)	Limited PTE of PM (tons/yr)
56.00	245.28

¹ Emission Factors were provided by the source and are from FIRE 6.25 SCC 3-04-003-40 for grinding

² EPA ICR Sources Iron and steel MACT indicated Mn major inorganic HAP so estimated 90% and remaining Pb

METHODOLOGY

Uncontrolled PM (lbs/hr) = Process rates (ton/hr) * PM (lb/ton) Metal throughput
 Uncontrolled PM (tons/yr) = Uncontrolled PM (lbs/hr) * 8760 (hr/yr) / (1 ton/2000 lbs)
 Uncontrolled PM10/PM2.5 (tons/yr) = Process Rates (ton/hr) * PM10/PM2.5 (lb/ton) metal throughput * 8760 (hr/yr) / (1 ton/2000 lbs)
 Controlled PM (lb/hr) = Uncontrolled PM (lbs/hr) * Capture Efficiency (%) * (1- Control Efficiency (%))
 Controlled PM (ton/yr) = Controlled PM (lb/hr) * 8760 (hr/yr) / (1 ton/2000 lbs)
 Controlled PM10/PM2.5 (ton/yr) = Uncontrolled PM10/PM2.5 (ton/yr) * Capture Efficiency (%) * (1-Control Efficiency(%))
 Limited PTE of PM (tons/yr) = Limited PTE of PM (lbs/hr) * 8760 (hr/yr) / (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

UNIT	MMBtu/hr
#2 BQF Furnace	1.8
#EG Endothermic Generator	0.2
#1 Area Heater	0.84
#1 Area Heater	1.68
#1 Temer Furnace	0.8
Total	5.32

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
5.32	1020	45.69

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.04	0.17	0.17	0.01	2.28	0.13	1.92

*PM emission factor is filterable PM only. PM10/PM2.5 emission factors are filterable and condensable combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Potential Throughput
MMCF/yr
45.69

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
Potential Emission in tons/yr	4.80E-05	5.26E-04	1.71E-03	4.11E-02	7.77E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.14E-05	2.51E-05	3.20E-05	8.68E-06	4.80E-05

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

TOTAL HAPs 4.36E-02

Methodology

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions**

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

UNIT	MMBtu/hr
#2 BQF Furance	1.8
#EG Endothermic Generator	0.2
#1 Area Heater	0.84
#1 Area Heater	1.68
#1 Temer Furnace	0.8
TOTAL	5.32

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
5.32	1020	45.69

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,741.4	0.1	0.1
Summed Potential Emissions in tons/yr	2,741.5		
CO2e Total in tons/yr	2,758.0		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O
 Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Parts Washers**

Company Name: Brevini Wind USA Inc
Address City IN Zip: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Material*	Maximum Usage (gal/day)	Density (lb/gal)	Maximum Usage (tons/yr)	Volatile Component (%)	PTE of VOC (tons/yr)	Total HAP Component (%)	PTE Total HAP (tons/yr)
CERFA-KLEEN	0.16	8.4	0.25	100.00%	0.25	0.00%	0.00
Blue Gold Industrial Cleaner	0.19	8.4	0.29	100.00%	0.29	0.00%	0.00
TOTAL					0.54		0.00

METHODOLOGY

Usage (tons/yr) = Usage (gal/day) * Density (lb/gal) * 365 day/year * 1 ton/2000 Lb

PTE of VOC/HAP (tons/year) = Usage (tons/yr) * Volatile/HAP Component (%)

Appendix A: Emissions Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Brevini Wind USA Inc
Source Address: 2400 N Priority Way, Yorktown, Indiana 47396
Permit No: M035-32067-00090
Reviewer: JL
Date: July 2012

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	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)
Vehicle (entering plant) (one-way trip)	400.0	1.0	400.0	2.5	1000.0	75	0.014	5.7	2073.9
Vehicle (leaving plant) (one-way trip)	400.0	1.0	400.0	2.5	1000.0	75	0.014	5.7	2073.9
Trucks entering plant (one-way trip)	15.0	1.0	15.0	70.0	1050.0	10000	1.894	28.4	10369.3
Trucks leaving plant (one-way trip)	15.0	1.0	15.0	70.0	1050.0	10000	1.894	28.4	10369.3
Total			830.0		4100.0			68.2	24886.4

Average Vehicle Weight Per Trip = $\frac{4.9}{0.08}$ tons/trip
Average Miles Per Trip = $\frac{4.9}{0.08}$ miles/trip

Unmitigated Emission Factor, Ef = $[k * (sL)^{0.91} * (W)^{1.02}]$ (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	4.9	4.9	4.9	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m ² = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = $E * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext = $Ef * [1 - (p/4N)]$
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.087	0.017	0.0043	lb/mile
Mitigated Emission Factor, Eext =	0.080	0.016	0.0039	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.09	0.02	0.00	0.08	0.02	0.00
Vehicle (leaving plant) (one-way trip)	0.09	0.09	0.08	0.08	0.02	0.00
Trucks entering plant (one-way trip)	0.45	0.09	0.02	0.41	0.08	0.02
Trucks leaving plant (one-way trip)	0.45	0.09	0.02	0.41	0.08	0.02
	1.08	0.29	0.13	0.99	0.20	0.05

Methodology

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 year (trip/day)] * [Maximum one-way distance (mi/trip)]
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 year (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)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

TO: Dale E Harder
Brevini Wind USA Inc
2400 N. Priority Way
Yorktown, IN 47396

DATE: July 27, 2012

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

SUBJECT: Final Decision
MSOP
035-32067-00090

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	CDENNY 7/27/2012 Brevini Wind USA Inc 035-32067-00090 (final)		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		Dale E Harder Brevini Wind USA Inc 2400 N. Priority Way Yorktown IN 47396 (Source CAATS)									
2		Delaware County Health Department 200 W Main St, County Bldg Room 207-309 Muncie IN 47305-2874 (Health Department)									
3		Yorktown Town Council and Town Manager P. O. Box 518 Yorktown IN 47396 (Local Official)									
4		Delaware County Commissioners 100 West Main Street Muncie IN 47305 (Local Official)									
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