



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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May 6, 2002

Eric Hickman
GE Industrial Systems
PO Box 1701
Fort Wayne, Indiana 46801

Dear Eric Hickman:

Re: Exempt Construction and Operation Status,
003-15540-00284

The application from GE Industrial Systems, received on April 24, 2002, 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 emergency diesel generator, to be located at 1635 Broadway Street, Fort Wayne, Indiana 46802, is classified as exempt from air pollution permit requirements:

- (a) one (1) emergency diesel generator, identified as 101, with a maximum capacity of 2200 horsepower exhausting through the stack 301/302.

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 Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
2. The emergency diesel generator shall not operate more than 500 hours in a year.

The uncontrolled potential to emit of this emission unit is below the threshold specified in 326 IAC 2-1.1-3(d)(1). Therefore, this emission unit is subject to the provisions of 326 IAC 2-1.1-3 and is considered exempt. Any change or modification which can increase the potential to emit of from the emergency diesel generator, greater than the threshold in 326 IAC 2-1.1-3 will require prior approval from the IDEM, OAQ.

This existing source has submitted their FESOP application (F003-6901-00284) on October 15, 1996. The equipment reviewed under this exemption shall be incorporated in the submitted FESOP application.

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.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

GS

cc: File – Allen County
Allen County Health Department
Air Compliance – Jennifer Dorn
Permit Tracking – Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak
FESOP Application File – F003-6901-00284
FESOP Permit Reviewer – Melissa Groch

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exempted Unit in a FESOP Source

Source Background and Description

Source Name:	GE Industrial Systems
Source Location:	1635 Broadway Street, Fort Wayne, Indiana 46802
County:	Allen
SIC Code:	3612
Operation Permit No.:	003-6901-00284
Operation Permit Issuance Date:	Not Yet Issued
Exemption No.:	003-15540-00284
Permit Reviewer:	Gurinder Saini

The Office of Air Quality (OAQ) has reviewed an application from GE Industrial Systems relating to the construction and operation of an emergency generator to run computer servers and other computer equipment in case of power outage.

Emission Units and Pollution Control Equipment

The modification consists of the following emission units and pollution control devices:

- (a) one (1) emergency diesel generator, identified as 101, with a maximum capacity of 2200 horsepower exhausting through the stack 301/302.

Enforcement Issue

There are no enforcement actions related to this emission unit.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

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 April 24, 2002. Additional information was received on May 02, 2002.

Emission Calculations

See Appendix A page 1 to 4 of this document for detailed emissions calculations.

The emission unit in this permit is an emergency generator. Therefore, based on EPA guidance memo, the potential to emit for the various pollutants are determined based on the 500 operating hours per year.

Potential To Emit of the modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.4
PM-10	-
SO ₂	2.2
VOC	0.4
CO	3.0
NO _x	6.5

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, this emission unit is subject to the provisions of 326 IAC 2-1.1-3 and is considered exempt unit.
- (b) Any change or modification which can increase the potential to emit of NO_x from the emergency generator, greater than the threshold in 326 IAC 2-1.1-3 will require prior approval from the IDEM, OAQ.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Allen County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM10	2
SO ₂	0
VOC	23
CO	7
NO _x	3

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on actual emissions for 2000 as reported by GE Industrial Systems for Emissions Inventory of IDEM.

Proposed Modification

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

A FESOP is being drafted for this source that will include the existing equipment and new equipment. Limits will be taken in order for this source to be considered a minor stationary source and not be subject to 326 IAC 2-7, Part 70 and 326 IAC 2-2 PSD Requirements.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this Exemption 003-15540-00284, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

This status is based on the pending FESOP application F003-6901-00284 submitted to IDEM, OAQ on October 15, 1996.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 5-1 (Visible Emissions Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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.

Conclusion

The construction and operation of this emergency diesel generator shall be subject to the conditions of the attached Exemption 003-15540-00284.

**Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Emergency Generator (>600 HP)**

Company Name: GE Industrial Systems
Address City IN Zip: 1635 Broadway Street, Fort Wayne Indiana 46802
CP#: 003-15540
Plt ID: 003-00284
Reviewer: GS
Date: May 02, 2002

Emissions calculated based on output rating (hp)

Heat Input Capacity Potential Throughput S= = WEIGHT % SULFUR
Horsepower (hp) hp-hr/yr

 Hours* of operation =

Emission Factor in lb/hp-hr	Pollutant					
	PM* 0.0007	PM10* not provided	SO2 0.0040 (.00809S)	NOx 0.012 **see below	VOC 0.00071	CO 0.00550
Potential Emission in tons/yr	0.4	0.0	2.2	6.5	0.4	3.0

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr as certified by EPA for 2DDXL65.0GTE engine = 0.012 lb/hp-hr- certificate attached
Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.
An average conversion factor of 1hp-hr = 7,000Btu is provided below.

Methodology

Potential Throughput (hp-hr/yr) = hp * hr/yr

Emission Factors are from AP 42 (Supplement B 10/96)Table 3.4-1 and Table 3.4-2

1 hp-hr = 7000 Btu, AP42 (Supplement B 10/96), Table 3.3-1, Footnote a.

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.

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Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

updated 4/99

DETROIT DIESEL

A DaimlerChrysler Powersystems Company

**Facsimile / Telefax**

To / An: Gary Saini
Fax / Telefax: 317-232-6749

From / Von: Joanna Vardas
Phone / Telefon: 313 592 1690
Fax / Telefax: 313 592 3892

Date / Datum: May 2, 2002
No. of Pages / Seitenzahl: 2

Subject / Subjekt: GE Generator Permit Request

Reply / Rückantwort: Please find attached the MY 2002 US EPA Certificate of Conformity for the DDC Series 4000 LOW NOx family 2DDXL65.0GTE which includes a 2200 hp @ 1800 rpm rating (06N04M1393).

RECEIVED
MAY 02 2002
State of Indiana
Department of Environmental Management
Office of Air Quality

NOTICE / NOTIZ

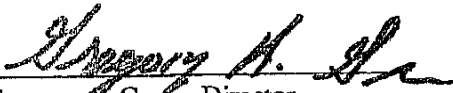
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

2002 Model Year Certificate of Conformity

Manufacturer: **Detroit Diesel Corperation**
Certificate Number: **DDX-NR9-02-01**
Effective Date: **7/23/01**
Date Issued: **7/23/01**


Gregory A. Green, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR 89, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 89 and produced in the stated model year.

Nonroad Diesel Engine Family: 2DDXL65.0GTE

This certificate of conformity covers only those new nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 89 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 89. This certificate of conformity does not cover nonroad engines imported prior to the effective date of the certificate.

This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 89, Subpart C. Failure to comply with these provisions may render this certificate void ab initio.

Family NOx emission limit: 5.4 g/BHP-hr

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 89.129-96 and 89.506-96 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 89. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 89.

This certificate does not cover nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.



Gen Set
12V4000 - T1237K36

Emission Data
06N04M1393

Standby Power Limit: 2200 bhp @ 1800 r/min

Summary

Rated Power Speed, r/min	1800
Certification Code (CWC)	5424
US Nonroad Certification	Yes
TA LUFT Certification	No
Comments	

All values shown are at rated engine speed and standby power at ISO 3046 conditions, unless otherwise noted.

D2-Cycle Emissions

	Engine Load (g/hr)					Total (g/bhp-hr)
	10%	25%	50%	75%	100%	
NO _x	95.4	2,165	4,515	7,070	9,685	4.4
CO	1,225	701	534	748	2,130	0.760
HC	1,025	848	760	601	364	0.806
SO ₂	0.000	0.000	0.000	0.000	0.000	
Particulates	163	167	185	164	308	0.171

Inquiries should be sent to: Joanna.Vardas@DetroitDiesel.com

Printed on: 8/24/01

The user is advised to check the PowerEvolution Network for latest information.
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Date Last Updated: 6/20/01

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