AIR QUALITY PERMIT

Issued to: Cummins USA
811 SW Grady Way
Renton, WA 98055

Permit: #4063-00
Application Complete: 03/12/07
Preliminary Determination Issued: 04/18/07
Department Decision Issued: 05/04/07
Permit Final: 05/22/07
AFS: #777-4063

An air quality permit, with conditions, is hereby granted to Cummins USA (Cummins), pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Permitted Equipment

Cummins operates three Cummins 800DQFAB portable diesel generator sets in various locations throughout Montana.

B. Plant Location

Cummins will operate three Cummins 800DQFAB portable diesel generators at various locations throughout Montana. Permit #4063-00 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County.* An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

Section II: Limitations and Conditions

A. Operational Requirements

1. All visible emissions from each of the diesel generators may not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

2. Cummins shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

3. Cummins shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.2 (ARM 17.8.752).

4. The pound per hour (lb/hr) emission limits for each Cummins 800DQFAB diesel generator shall be determined using the following equation and pollutant specific grams per brake horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

Equation
Emission Limit (lb/hr) = Emission Factor (g/bhp-hr) * maximum rated design capacity of engine (bhp) * 0.002205 lb/gram

Emission Factors

Oxides of nitrogen (NO_x):	3.93 g/bhp-hr
Carbon monoxide (CO):	0.45 g/bhp-hr
Volatile organic compounds (VOC):	0.09 g/bhp-hr

5. Cummins shall not operate more than three Cummins 800DQFAB diesel generators at any given time and the maximum size of any Cummins 800DQFAB diesel generator operated under this permit shall not exceed 800 kilowatts (kW), which is equivalent to 1,072 horsepower (hp).

6. Each Cummins 800DQFAB diesel generator shall not exceed 6,450 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

7. Cummins shall only operate Cummins 800DQFAB diesel generators that are certified to meet the United States Environmental Protection Agency's (EPA) Tier 2 non-road emission standards (ARM 17.8.752).

8. If the permitted equipment is used in conjunction with any other equipment owned or operated by Cummins, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

9. Cummins shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, for any applicable diesel engines (ARM 17.8.340, 40 CFR 60, Subpart IIII).

B. Testing Requirements

1. Each Cummins 800DQFAB diesel generator shall be initially tested for NOx and CO, concurrently, to demonstrate compliance with the lb/hr emission limits contained in Section II.A.4. The initial source testing shall be conducted within 180 days of the initial start up date of each diesel generator (ARM 17.8.105 and ARM 17.8.749).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Before the Cummins 800DQFAB diesel generators are allowed into the state of Montana, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area where the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of

publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

Once the Cummins 800 DQFAB diesel generators are located in the state of Montana, if the Cummins 800 DQFAB diesel generators are moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area where the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

2. Cummins shall maintain on-site records showing daily hours of operation for the last 12 months. The records compiled in accordance with this permit shall be maintained by Cummins as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

3. Cummins shall document, by month, the hours of operation for each of the diesel generators. By the 25th day of each month, Cummins shall calculate the hours of operation from each of the diesel generators for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

4. Cummins shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A. of the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the diesel generator and/or to verify compliance with permit limitations (ARM 17.8.505).

5. Cummins shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de-minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de-minimis change, and must include the information requested in ARM 17.8.745(l)(d).

6. Cummins shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM

17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

1. Within 15 days of the installation date of each diesel engine, Cummins shall notify the Department of the actual installation date of each engine.

2. Within 15 days of the startup date of each diesel engine, Cummins shall notify the Department of the actual startup date of each engine.

Section III: General Conditions

A. Inspection – Cummins shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Cummins fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Cummins of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Cummins may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall

be revoked (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Cummins shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas having a Department-approved permitting program.

PERMIT ANALYSIS
Cummins USA
Permit Number 4063-00

I. Introduction/Process Description

A. Permitted Equipment

Cummins USA (Cummins) is permitted to operate three Cummins 800DQFAB portable diesel generators. The maximum size of any Cummins 800DQFAB diesel generator operated under this permit shall not exceed 800 kilowatts (kW), which is equivalent to 1,072 horsepower (hp). The facility is allowed to move to various locations throughout Montana, except those areas with a Department of Environmental Quality (Department)-approved permitting program, those areas considered Tribal Lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

B. Source Description

Cummins operates three Cummins 800DQFAB portable diesel generator sets in various locations throughout Montana. The diesel generators would be used to provide power to other equipment.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Cummins shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Cummins must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne Particulate Matter (PM). (2) Under this section, Cummins shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere, particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions—Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in the amount set forth in this section.

6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Cummins shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR Part 60, Subpart IIII,

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, for any applicable diesel engines (ARM 17.8.340, 40 CFR 60, Subpart IIII).

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Cummins submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to use a diesel generator that has the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. Cummins has a PTE greater than 25 tons per year of oxides of nitrogen (NO_x); therefore an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits – General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits – Exclusions for De-Minimis Changes. This rule identifies the de-minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to the installation, modification, or use of a source. Cummins submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Cummins submitted an affidavit of

publication of public notice for the February 25, 2007, issue of *The Billings Gazette*, a daily newspaper of general circulation in Billings, Montana, in Yellowstone County; the February 27, 2007, issue of the *Independent Record*, a daily newspaper of general circulation in Helena, Montana, in Lewis and Clark County; the February 28, 2007, issue of the *Great Falls Tribune*, a daily newspaper of general circulation in Great Falls, Montana, in Cascade County; the February 28, 2007, issue of the *Daily Inter Lake*, a daily newspaper of general circulation in Kalispell, Montana, in Flathead County; the February 24, 2007, issue of the *Missoulian*, a daily newspaper of general circulation in Missoula, Montana, in Missoula County; and the February 28, 2007, issue of *The Western News*, a semiweekly newspaper of general circulation in Libby, Montana, in Lincoln County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of the permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Cummins of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this sub-chapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of

Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de-minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this sub-chapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this sub-chapter would otherwise allow.

   Cummins is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any air pollutant.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or

   c. Sources with PTE > 70 tons/year of PM_{10} in a serious PM_{10} non-attainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #4063-00 for Cummins, the following conclusions were made:

a. The facility's PTE is less than 100 tons/year for all criteria pollutants;

b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs;

c. This source is not located in a serious PM_{10} non-attainment area;

d. This facility may be subject to current NSPS standard (40 CFR 60, Subpart IIII);

e. This facility is not subject to any current NESHAP standards;

f. This source is not a Title IV affected source nor a solid waste combustion unit;

g. This source is not an EPA designated Title V source

Each of the three diesel generators is limited to no more than 6,450 hours of operation during any rolling 12-month period to keep the facility below Title V permitting threshold of 100 tons/year of NO_X; therefore, the facility is not required to obtain a Title V Operating Permit.

h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or altered source. Cummins shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

Cummins has identified three NOx control options:

- Selective catalytic recovery (SCR);
- Alternate fuel type – natural gas/propane; and

- Good combustion characteristics/EPA Tier 1 or Tier 2 certified

SCR

While SCR control is technically feasible for these units, the portable nature of these generators would make it difficult to set up, tune, and maintain a SCR system on these generators at different possible future sites of operation. Other environmental liabilities also would exist with the transport and storage of urea at the different locations.

Alternate fuel type – natural gas/propane

Natural gas or propane-fired generator engines greater than 700 kW in size are typically unavailable. Also, as these units are portable units that could be moved to different locations, it is unknown whether or not natural gas or propane would be readily available at the future sites of operation. Diesel is easily transported to any available site. Natural gas-fired generation is also typically much more expensive in terms of capital cost and operating cost as compared to the diesel-fired units.

Good combustion characteristics/EPA Tier 1 or Tier 2 certified

Cummins proposes the operation of three Cummins 800DQFAB generators capable of meeting the Environmental Protection Agency's (EPA) Tier 2 non-road emission standards.

BACT Conclusions

The Department determined that BACT for each of the three diesel-fired generators is the operation of a Cummins 800DQFAB diesel generator capable of meeting the Environmental Protection Agency's (EPA) Tier 2 non-road emission standards, good combustion practices, and the following emission factors:

- NO_x: 3.93 grams per brake horsepower-hour (g/bhp-hr);
- Carbon monoxide (CO): 0.45 g/bhp-hr;
- Volatile organic compounds (VOC): 0.09 g/bhp-hr;
- Sulfur dioxide (SO_2): 0.10 g/bhp-hr; and
- PM_{10}: 0.12 g/bhp-hr

Also, Cummins shall take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking areas, and the general plant property. The Department determined that using water and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for these sources.

IV. Emission Inventory

Source	Size Rating	Size Rating	Hours of Operation	PM	PM_{10}	NOx	CO	SO_2	VOC
	(kW)	(hp)	(hrs)	(tons/year)	(tons/year)	(tons/year)	(tons/year)	(tons/year)	(tons/year)
Generator 1	800	1,072.8	6,450	0.92	0.92	29.98	3.43	0.76	0.69
Generator 2	800	1,072.8	6,450	0.92	0.92	29.98	3.43	0.76	0.69
Generator 3	800	1,072.8	6,450	0.92	0.92	29.98	3.43	0.76	0.69
Totals:				**2.75**	**2.75**	**89.93**	**10.30**	**2.29**	**2.06**

Note: A complete emission inventory for Permit #4063-00 is on file with the Department. A

limitation of 6,450 annual hours of operation per rolling 12-month time period was placed on the diesel engines/generators in order to keep emissions below the 100 tons per year threshold established for NO_x.

V. Existing Air Quality

Permit #4063-00 is issued for the operation of a portable diesel generator facility to operate at various locations throughout Montana. This facility would be allowed to operate at any area designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding those counties that have a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*

VI. Air Quality Impacts

The Department believes that the amount of controlled emissions generated by this project will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minimal and short-lived.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued to: Cummins USA
811 SW Grady Way
Renton, WA 98055

Air Quality Permit Number: 4063-00

Preliminary Determination Issued: 04/18/07
Department Decision Issued: 05/04/07
Permit Final: 05/22/07

1. *Legal Description of Site*: Cummins submitted an application to operate three Cummins 800DQFAB portable diesel generators. Permit #4063-00 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered to be tribal lands, or those areas in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* An addendum to this air quality permit would be required if Cummins intends to locate in or within 10 km of certain PM_{10} nonattainment areas.

2. *Description of Project*: The permit application is for the operation of three Cummins 800DQFAB portable diesel generators. The maximum size of any Cummins 800DQFAB portable diesel generator operated shall not exceed 800 kW, which is equivalent to 1,072 hp.

3. *Objectives of the Proposal*: The diesel generators would be used to provide power to equipment.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no action alternative" would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Cummins demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions and a permit analysis, including a BACT, would be contained in Permit #4063-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action alternative" was discussed previously.

Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Attached
A.	Terrestrial and Aquatic Life and Habitats			X			Yes
B.	Water Quality, Quantity, and Distribution			X			Yes
C.	Geology and Soil Quality, Stability, and Moisture			X			Yes
D.	Vegetation Cover, Quantity, and Quality			X			Yes
E.	Aesthetics			X			Yes
F.	Air Quality			X			Yes
G.	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			Yes
I.	Historical and Archaeological Sites			X			Yes
J.	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

The operation of the diesel generators would have only minor impacts upon the terrestrial and aquatic life and habitats in areas where the generators may operate. Although air pollutant deposition would occur in the areas where the generators would operate, the size and temporary nature of the operation, dispersion characteristics of pollutants, and conditions placed in Permit #4063-00 would result in minor impacts. In addition, the generators would be relatively small by industrial standards and located at previously disturbed sites. Therefore, the operation of the generators would present only minor impacts to the terrestrial and aquatic life and habitats in areas of potential operation.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the portable diesel generators would operate, there would only be minor impacts on water quality, quantity, and distribution because of the temporary nature, size, operational requirements, and conditions placed in Permit #4063-00 for the facility. Further, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor. In addition, any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the generators would have minor impacts to water quality, quantity, and distribution in the area of operations.

C. Geology and Soil Quality, Stability, and Moisture

As a result of the operation of the portable diesel generators, there would be minor impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because of the increased vehicle traffic and deposition of pollutants from portable generator operations. As explained in Section 7.F. of this EA, the facility's size, operational requirements, temporary nature of the operation, and conditions placed in Permit #4063-00 would minimize the impacts from deposition. In addition, the generators would be relatively small by industrial standards and located at previously disturbed sites, which would also reduce the potential impact to the local geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

The operation of the generators would result in minor impacts to the vegetative cover, quantity, and quality, because small amounts of vegetation would likely be disturbed as a result of operating the diesel generators. In addition, pollutant deposition would occur on the surrounding vegetation. However, as explained in Section 7.F. of this EA, the Department determined that, due to the relatively small size and temporary nature of the operation, conditions placed in Permit #4063-00, and dispersion characteristics of the emissions, any impacts from deposition would be minor. In addition, because the water usage would be minor (as described in Section 7.B. of this EA) and the associated soil disturbance would be minor (as described in Section 7.C. of this EA), corresponding vegetative impacts from water and soil disturbance would also be minor.

E. Aesthetics

The diesel generators would be visible and would create noise in the areas where they would operate. Permit #4063-00 would include conditions to control emissions (including visible emissions) from the generators and the surrounding work area. The generators would be relatively small by industrial standards and temporary and would be used to power equipment at previously disturbed sites. Therefore, any aesthetic impact to a given area would be minor and temporary.

F. Air Quality

Air quality impacts from the operation of the diesel generators would be minor because emissions from the diesel generators would be relatively small. Dispersion and deposition of pollutants would occur from the operation of the diesel generators; however, the Department determined that any air quality impacts from the pollutants would be minor due to dispersion characteristics (from factors such as wind speed and wind direction) and conditions placed in Permit #4063-00. Permit #4063-00 would include conditions limiting opacity from the diesel generators and would require that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, or the general work area. In addition, Permit #4063-00 would also limit total emissions from the diesel generators and any additional equipment operated at the same site to 250 tons per year or less. Further, because the diesel generators are limited in hours of operation to keep the potential emissions to less than 100 tons per year for any pollutant generated, the Department determined that the diesel generators are a minor source of emissions as defined under Title V.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify species of special concern that may be present in the proposed areas of operation, the Department previously contacted the Montana Natural Heritage Program (MNHP) for a review of species of special concern for many sites around the state. This would include many of the sites where the generators may be located, but no initial location was identified under this permit. Issuance of this permit would increase emissions to the atmosphere near the location proposed for the operation of the diesel generators. In any of the previously disturbed areas reviewed, impacts were minor. In addition, as explained in Section 7.F. of this EA, because of the relatively small size and temporary nature of the diesel generators, and conditions placed in Permit #4063-00, any impacts to unique endangered, fragile, or limited environmental resources from the deposition of pollutants would be minor.

H. Demands on Environmental Resource of Water, Air, and Energy

The diesel generators would be used to provide power to other equipment. Water would be used on haul roads, access roads, parking lots, or the general plant property, as necessary, to control dust resulting from indirect use of the diesel generators. Also minor amounts of air would be used in diesel generator operations and air quality would be impacted by pollutant emissions. The generators would consume energy from diesel fuel, a non-renewable resource. Generally, the operations are seasonal and would result in smaller demands on environmental resources. Therefore, any impacts on the demands of the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

According to past correspondence with the Montana State Historic Preservation Office (SHPO), there is low likelihood of disturbance to any known archaeological or historic site given that the diesel generators would likely be locating in previously disturbed sites. Therefore, it is unlikely that the project would affect any known historic or archaeological site and any impacts would be minor.

J. Cumulative and Secondary Impacts

The operation of the diesel generators would cause minor effects to the physical and biological environment because other operations may potentially locate at the same site. However, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. The permits would address the environmental impacts associated with the operations at the proposed sites.

The diesel generator operations would be limited by Permit #4063-00 to total emissions of 250 tons/year or less from non-fugitive diesel generator operations and any other additional equipment used at any given site.

8. The following table summarizes the potential social and economic effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Attached
A.	Social Structures and Mores				X		Yes
B.	Cultural Uniqueness and Diversity				X		Yes
C.	Local and State Tax Base and Tax Revenue			X			Yes
D.	Agricultural or Industrial Production			X			Yes
E.	Human Health			X			Yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G.	Quantity and Distribution of Employment				X		Yes
H.	Distribution of Population				X		Yes
I.	Demands for Government Services			X			Yes
J.	Industrial and Commercial Activity			X			Yes
K.	Locally Adopted Environmental Plans and Goals				X		Yes
L.	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The operation of the diesel generators would not alter or disrupt any local lifestyles or communities (social structures and mores) in an area of operation because the generators would be relatively small by industrial standards, would operate intermittently, and would be used with the additional permitted equipment at a previously disturbed site. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

It would be unlikely that the operation of the portable diesel generators would have any impact on the cultural uniqueness and diversity of an area of operation because the generator operations would be temporary and would likely take place in a previously disturbed industrial area.

C. Local and State Tax Base and Tax Revenue

The proposed operation of the diesel generators would have little, if any affect on local and state tax base and tax revenue. The facility is a relatively small and temporary source; therefore, it would not remain at any individual site for any extended time period. No full time, permanent employees would be added as a result of issuing Permit #4063-00, and any revenue created by the operation of the diesel generators would be widespread and for a relatively short time period.

D. Agricultural or Industrial Production

Under normal circumstances, the operation of the diesel generators would take place in a previously disturbed industrial area. Therefore, the Department does not expect that the operation of the diesel generators would affect or displace any agricultural land. Further, the diesel generator operation is small by industrial standards and would have only a minor impact on any local industrial production.

E. Human Health

Permit #4063-00 would incorporate conditions to ensure that the diesel generators would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in Permit #4063-00. The air emissions from this facility would be minimized by opacity limitations on the diesel generators and the surrounding area of operation.

F. Access to and Quality of Recreational and Wilderness Activities

The diesel generators would likely be located on previously disturbed property and would not impact access to recreational and wilderness activities. However, minor impact on the quality of recreational activities might be created by the noise from the generators. Emissions from these generators would be minimized as a result of limitations placed in Permit #4063-00 and the temporary and portable nature of the operation.

G. Quantity and Distribution of Employment

Given the relatively small size and temporary nature of the operation, it is not expected that the activities from the operation of the diesel generators would affect the quantity and distribution of employment in any given area. No full time, permanent employees would be hired or discharged as a result of issuing Permit #4063-00.

H. Distribution of Population

Given the relatively small size and temporary nature of the operation, it is not expected that the activities from the diesel generators would disrupt the normal population distribution of any given area. No secondary activities are expected to move to any area as a result of the current project.

I. Demands of Government Services

Government services would be required for acquiring the appropriate permits and ensuring compliance with the permits that are issued; however, the government services required would be minor.

J. Industrial and Commercial Activity

The operation of the diesel generators would represent only a minor increase in the industrial activity in any given area. No additional industrial or commercial activity would result from the operation of the diesel generators because no secondary activities are expected to move to any area as a result of the current project.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals at any given site that the diesel generators may be operated at under Permit #4063-00. The state standards identified in Permit #4063-00 would govern the proposed sites and the environment surrounding the sites.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary social and economic impacts from this project would be minor because the diesel generators would likely originally locate at a previously disturbed site. New businesses would not be drawn to the area and permanent jobs would not be created or lost due to the operation of the diesel generators. Because no new employees would be hired due to the operation of the diesel generators, there would be no economic impacts from new employees. In addition, any social and economic impacts that are created would be minor and short-lived because of the relatively small size and temporary nature of the operation.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: Because these diesel generators are relatively small portable sources and must use reasonable precautions to control emissions, any impacts created would be minor impacts.

Other groups or agencies contacted or which may have overlapping jurisdiction: Natural Resource Information System - Montana Natural Heritage Program, Montana Historical Society - State Historic Preservation Office, and the Industrial and Energy Minerals Bureau.

Individuals or groups contributing to this EA: Department of Environmental Quality Permitting and Compliance Division (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Natural Resource Information System - Montana Natural Heritage Program, and Montana Historical Society - State Historic Preservation Office.

EA Prepared by: Eric Thunstrom
Date: March 20, 2007