



### GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street \* Bishop, California 93514-2537

Tel:(760) 872-8211 \* Fax:(760) 872-6109 \* www.gbuapcd.org \* email:gb1@greatbasinapcd.org

#### -STATEMENT-

DATE: Date

APPLICATIONN<sup>o</sup>: 1280-00-06

Air Quality Permit Fee - John [redacted] Emergency  
Standby Generator

TO.: Verizon Wireless  
255 Parkshore Drive, Building B  
Folsom, CA 95630

SUBJECT: Authority to Construct N<sup>o</sup>: 1280-00-06, Permit N<sup>o</sup>:

Before the district can take action on your application, the permit fee must be paid according to regulation III of the Great Basin Unified Air Pollution Control District Rules and Regulations:

<input checked="" type="checkbox"/>	AIR QUALITY PERMIT.....	\$ 724.00
	INITIAL FILING FEE.....	
<input checked="" type="checkbox"/>	INITIAL PERMIT FEE.....	
	ANNUAL RENEWAL FEE.....	
	AIR POLLUTION VARIANCE FILING FEE.....	\$
	OTHER.....	\$

Please make checks payable to the Great Basin Unified Air Pollution Control District, 157 Short Street, Suite 6, Bishop, California 93514.

If the permit fee is not received by the District within 30 days from the billing date, the District will be required to take the appropriate action on your application pursuant to Rule 300(D) as follows:

Permit Fee Penalties: If the provisions for granting an Authority to Construct or Permit to Operate have been completed with or on the renewal date of a Permit to Operate, the California Department of Fish & Game/ permittee shall be notified by mail of the fee due and payable. If the fee is not paid within 30 days after it becomes due, the fee shall be increased by one half the amount and the California Department of Fish & Game/ permittee shall be notified by mail of the increased fee. If the increased fee is not paid within 30 days after notice, the California Department of Fish & Game/permittee will be notified by mail.

#### ADDITIONAL COMMENTS: FEE Schedule 2 Fuel Burning Equipment Schedule

Any article, machine, equipment or other contrivance in which fuel is burned, with the exception of incinerators which are covered in Schedule 4, shall be assessed a permit fee based upon the design fuel consumption of the article, machine, equipment or other contrivance expressed in thousands of British Thermal Units (BTU) per hour, using gross heating values of the fuel, in accordance with the following schedule:

$$(5.2 \text{ gal/hr}) \times (137,000 \text{ btu/gal}) = 712,400 \text{ Btu/hr}$$

1000 British Thermal Units Per Hour  
6500 or greater but less than 1,500

Authority to Construct  
Initial Permit Fee  
\$ 724.00

Annual Permit  
Renewal Fee (06/07)  
\$ 308.98

Theodore Schade  
Control Officer



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Date

Mr. Shawn Stacey, Environmental Supervisor  
Verizon Wireless  
255 Parkshore Drive, Building B  
Folsom, CA 95630

RE: Authority to Construct Permit N<sup>o</sup> 1280-00-06, Standby Diesel Generator

Dear Mr. Stacey:

Please find enclosed your "Authority to Construct" permit issued in regard to the above-entitled matter. Please note, **THIS IS NOT A PERMIT TO OPERATE**. You must notify the District 72 hours prior to initial plant startup. This will facilitate the inspection from which compliance with and Cal. Regulation Title 17 § 90100 with Rules 209, 401, and 402 of the Great Basin Unified Air Pollution Control District Rules and Regulations will be determined. The Permit to Operate will be issued upon successful compliance with District Rules.

Also enclosed is your initial permit fee statement which covers the District analysis, inspection and first year of operation for your facility. The fees are arrived at based upon Great Basin Unified APCD Rules and Regulations, Rule 301, Fee Schedule 2.

The emission factors were derived from the Compilation of Air Pollutant Emission Factors AP 42 and emission factors were supplied by the manufacturer. The maximum allowable emission rate for standby diesel generators is based on District Rules 209-A.2.a, 402 nuisance, and CCR Title 17 § 90100. Review the permit carefully. The Authority to Construct has been issued with confidence which assures the operation complies with the standards of Rule 209.A. Commencing operation under the Authority to Construct shall be deemed acceptance of all the conditions specified (Rule 209 Conditional Approval). The appeal procedure may be found under Rule 204.

Information regarding the District's general permit requirements for modifications to existing equipment, breakdowns, prohibitions, fee schedules, and appeal process, can be found in the Rules and Regulations of the District. For your convenience, the District Rules and relevant permit information may be found on the District's website at <http://www.gbuapcd.org/>. If you have any questions, please do not hesitate to call the District.

Sincerely,

\_\_\_\_\_  
Duane Ono  
Deputy Air Pollution Control Officer

DO/lc



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**THIS AUTHORITY TO CONSTRUCT EXPIRES TWO YEARS FROM THE DATE GRANTED!  
THIS AUTHORITY TO CONSTRUCT IS NOT A PERMIT TO OPERATE!**

**DATE AUTHORITY TO CONSTRUCT IS GRANTED:** Date: 12/15/06 Permit No: 1280-00-06

**GRANTED TO.....:** Verizon Wireless  
**MAILING ADDRESS..:** 255 Parkshore Drive, Building B  
Folsom, CA 95630

**EQUIPMENT ADDRESS:** Verizon Wireless  
Mammoth H.S. Cell Site  
1601 Meridian Blvd.  
Mammoth Lakes, CA 93546

**EQUIPMENT DESCRIPTION FOR PERMIT:** Engine, Standby Diesel Generator,  
consisting of:

- 1 - John Deere diesel fired engine model 5030HF270B, EPA No, TBD  
EPA No 4JDXL03.0064, Equipped with  
Turbocharger and Aftercooler, Rated 96 bhp

**AIR POLLUTION CONTROL EQUIPMENT:** Open exhaust stack  
The engine is subject to the California Resources Board Air Toxic Control Measure (ATCM) for Non-Road Compression Ignition Engines, Title 17 CCR § 93115. The engine shall have limited emergency idling hours of operation and will not be test operated during school hours.

**Total 712,400 Btu/hr**

**CONDITIONS:** See the attached conditional approval, conditions 1 through 13.

**A PERMIT TO OPERATE** the above equipment will be issued only after an inspection to determine if the equipment has been constructed according to the approved plans and the equipment can be operated in compliance with the Rules and Regulations of the Great Basin Unified Air Pollution Control District. Notify the District at (760) 872-8211 when construction is complete and the equipment is ready for startup operation. It is the applicant's responsibility to comply with all laws, ordinances and regulations of other governmental agencies which are applicable to the applicant's operation.

\_\_\_\_\_  
Duane Ono  
Deputy Air Pollution  
Control Officer

## Conditional Approval for Authority to Construct No. 1280-00-06

Verizon Wireless, Mammoth H.S. Site Cell Site  
1606 Meridian Blvd., Mammoth Lakes, CA 93546

### CONDITIONS: (Page 1 of 3)

1. The permittee shall notify the District in writing when construction is complete and the equipment is ready for startup operations. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted. Written start-up notification shall be given to the District office by Postal Service delivery or telephone facsimile transmission at least 72 hours prior to equipment start-up. Operation of this equipment without a written Permit to Operate is a violation of District Rule 200 B, and can result in civil and criminal penalties (H&S Code § 42400).
2. The "Right of Entry," as defined by California Health and Safety Code § 41510 of Division 26, shall apply at all times. Representatives of the Great Basin Air Pollution Control District upon presentation of credentials, shall be permitted to enter the project location to inspect and copy any record required to be kept under the terms of this permit. District staff shall also be permitted to inspect any equipment, work practices, air-emission-related activity or method dictated by this permit. If necessary by the District to verify compliance with these conditions, the permittee shall within 7 days notice be available to open any sample extraction port, or exhaust outlet for the purpose of conducting source tests or to collect samples. In enforcing the terms of this permit, any cost incurred in collecting samples, source testing and laboratory analysis fees shall be the responsibility of the permittee. (Origin of Condition: District Rule 202 Analysis Fee).
3. The permittee shall operate the diesel generator engine in compliance with the California Code of Regulations (CCR), Title 17 § 93115. A copy of the permit shall be maintained readily available at all times on the operating premises. [Origin of Condition: District Rule 200].
4. Because the engine has the potential to emit diesel PM at a rate greater than 0.09 g/bhp-hr, it shall not be operated more than 50 hours per year for maintenance. Operation of the engine beyond these hours shall be allowed only by the events as defined in permit condition 6. Furthermore, the At-School and Near-School Provisions of the ATCM dictates that Verizon Wireless or their operator shall not operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing during the following periods:
  - a. Whenever there is a school sponsored activity, and
  - b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.[Origin of Condition: Rule 210.A, Table 2, Title 17 CCR § 93115(e)(2)(B), & subsection (e)(2)(F)2.a.].
5. A non-resettable totalizer elapsed time meter shall be installed and maintained to indicate the cumulative hours of engine operation. (Origin of Condition: District Rule 210.A, Title 17, CCR § 93115).

**Conditional Approval for Authority to Construct No. 1280-00-06**

Verizon Wireless, Mammoth H.S. Site Cell  
1606 Meridian Blvd., Mammoth Lakes, CA 93546

**CONDITIONS: continued (page 2 of 3)**

6. Emergency use of the engine is not limited and is defined in Title 17 CCR § 93115 as providing electrical power or mechanical work during any of the following events and subject to the following conditions:
- A. the failure or loss of all or part of normal electrical power or normal natural gas supply to the facility:
    - (1) which is caused by any reason other than the enforcement of a contractual obligation the permittee has with a third party or any other party; and
    - (2) which is demonstrated by the permittee to the district APCO's satisfaction to have been beyond the reasonable control of the owner or operator;
  - B. the failure of a facility's internal power distribution system:
    - (1) which is caused by any reason other than the enforcement of a contractual obligation the permittee has with a third party or any other party; and
    - (2) which is demonstrated by the permittee to the district APCO's satisfaction to have been beyond the reasonable control of the owner or operator.

[Origin of Condition: Rule 210 A, Title 17 CCR § 93115(d)(25)].

7. The engine shall be fueled with CARB diesel fuel or an alternative diesel fuel that meets the requirements of the Standard of Motor Vehicle Fuel found in Title 13, CCR § 2281. Starting June 1, 2007, 15 parts-per-million sulfur content by weight or less shall apply in place of the 500 parts-per-million sulfur standard. The amount of sulfur dioxide exhausted to the atmosphere shall not exceed 0.2% by volume. The permittee shall keep records of the cost and volume of purchases. [Origin of Condition: District Rules 210 and 416, Title 13 CCR § 2281 and Title 17 CCR § 93115(e)(1)].

8. The permittee shall maintain a monthly log of usage that shall list and document the nature of use for each of the following:
- A. emergency use hours of operation;
  - B. maintenance and testing hours of operation;
  - C. initial start-up hours;
  - D. hours of operation for all uses other than those specified above; and
  - E. for those emergency standby diesel-fueled engines, the fuel used. The owner or operator shall document fuel use through the retention of fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:
    - (1) identification of the fuel purchased as either CARB diesel, or an alternative diesel fuel that meets the requirements of the verification procedure, or an alternative fuel, or CARB diesel fuel used with additives that meet the requirements of the verification procedure, or any combination of the above;

**Conditional Approval for Authority to Construct No. 1280-00-06**  
Verizon Wireless, Mammoth H.S. Site Cell Site  
1606 Meridian Blvd., Mammoth Lakes, CA 93546

**CONDITIONS: continued (page 3 of 3)**

- (2) amount of fuel purchased;
  - (3) date when the fuel was purchased;
  - (4) signature of owner or operator or representative of owner or operator who received the fuel; and
  - (5) signature of fuel provider indicating fuel was delivered.
- [Origin of Condition: Rule 210.A, Title 17 CCR § 931150(a)(2)].
9. Log entries shall be retained for a minimum of 36 months from the date of the last log entry made within 24 months of the most recent entry shall be retained on the generator at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from the most recent entry shall be made available to District staff within 5 working days upon request. [Origin of Condition: Rule 210.A, Title 17 CCR § 93115(e)(4)(I)(2)].
  10. Visible exhaust stack emissions shall not exceed the Engelmann (20% opacity) for more than three minutes during any continuous one-hour period. [Origin of Condition: Rule 400].
  11. The generator engines shall not discharge into the atmosphere particulate matter in excess of 0.3 grains per dry standard cubic foot of exhaust gas. [Origin of Condition: Rule 404-A].
  12. The permittee shall immediately notify the District in writing should they learn of or encounter conditions where toxic air emissions of concern are emitted and allowed to disperse into the ambient atmosphere. Toxic air emissions are those listed on the AB2588 list of substances. [Origin of Condition: CH&SC § 44321].
  13. Severability Clause: If any provision of this permit is found invalid, such finding shall not affect any remaining provisions. [Origin of Condition: District Rule 107].

Available Stationary Diesel-fueled Engine Emission Factors

**Emission Factors (g/hp-hr or g/bhp-hr)**

Horsepower Range	Model Year	ARB OFFROAD Model PM10 (g/bhp-hr)	AP-42	HC	CO	NOx
50 - 120	pre - 1988	0.84		1.44	4.8	13
	1988 - 2003	0.69		0.99	3.5	8.75
	2004	0.39		0.99	3.5	8.75
	2005	0.29		0.99	3.5	8.75
121 - 175	pre - 1970	0.77		1.32	4.4	14
	1970 - 1971	0.66		1.1	4.4	13
	1972 - 1987	0.55		1	4.3	12
	1988 - 2002	0.38		0.68	2.7	8.17
	2003	0.24		0.68	2.7	8.17
	2004	0.19		0.68	2.7	8.17
176 - 250	pre - 1970	0.77	less than 600 hp: 1.0 g/hp-hr ("D" rating)	1.32	4.4	14
	1970 - 1971	0.66		1.1	4.4	13
	1972 - 1987	0.55		1	4.4	12
	1988 - 2002	0.38		0.68	2.7	8.17
	2003	0.24		0.68	2.7	8.17
	2004	0.19		0.68	2.7	8.17
251 - 500	pre - 1970	0.74		1.26	4.2	14
	1970 - 1971	0.63		1.05	4.2	13
	1972 - 1987	0.53		0.95	4.2	12
	1988 - 1995	0.38		0.68	2.7	8.17
	1996 - 2000	0.15		0.68	2.7	8.17
	2001	0.12		0.68	2.7	8.17
501 - 750	pre - 1970	0.74	more than 600 hp: <u>Large bore</u> engines - 0.32 g/hp-hr ("B" rating) <u>Updated Size</u>	1.26	4.2	14
	1970 - 1971	0.63		1.05	4.2	13
	1972 - 1987	0.53		0.95	4.2	12
	1988 - 1995	0.38		0.68	2.7	8.17
	1996 - 2000	0.15		0.68	2.7	8.17
	2001	0.12		0.68	2.7	8.17
751+	pre - 1970	0.74	<u>Distribution Data:</u> Total PM - 0.24 g/hp-hr ("D" rating, up from "E")	1.26	4.2	14
	1970 - 1971	0.63		1.05	4.2	13
	1972 - 1987	0.53		0.95	4.2	12
	1988 - 1999	0.38		0.68	2.7	8.2
	2000 - 2005	0.15		0.68	2.7	8.2

ARB Offroad documentation (MSC #9-32) linked at: <http://www.arb.ca.gov/msei/off-road/pubs.htm>

US EPA Certification data for non-road diesel engines is available here:

*Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines (CARB, October 2000)*

<http://www.arb.ca.gov/diesel/documents/rmg.htm>

CATEF Emission Factors: <http://www.arb.ca.gov/ei/catef/catef.htm>

'Hot Spots' Program: <http://www.arb.ca.gov/ab2588/ab2588.htm>

Emission Inventory: <http://www.arb.ca.gov/ei/ei.htm>

Stationary DICE ATCM: <http://www.arb.ca.gov/diesel/statport.htm>

# **GENERAC<sup>®</sup>**

**POWER SYSTEMS, INC.**

## **STATEMENT OF EXHAUST EMISSIONS DIESEL FUELED GENERATOR**

The measured emission values provided below are proprietary to Generac and their authorized dealers. This information may only be disseminated upon request, to regulatory agencies for emissions permitting purposes, or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Type: SD060                      kW<sub>e</sub> Rating: 60  
Engine Size: 3.0L (John Deere)      HP at rated kW: 96  
                  4JDLX03.0064

Aspiration: Turbocharged Aftercooled

Speed (RPM): 1800

Additional Equipment Description: N/A

Emissions Test: 5-mode (ISO 8178 D2)

Engine Certification: CARB/EPA Tier 2

Measured Emissions (grams / brake horsepower-hour):

<u>NOx</u>	<u>THC</u>	<u>CO</u>	<u>PM</u>	<u>THC + NOx</u>
4.92	0.34	N/A	0.09	5.26

- The stated values are actual exhaust emission test measurements obtained from a unit representative of the generator type and engine described.
- Emission values based on 5-mode testing, are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA and CARB protocols, which are typically accepted by SCAQMD and other regulatory agencies.
- No emission values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems reserves the right to revise this information without prior notice.
- State and local permitting regulations may include additional requirements for installation and operation. Review all relevant state and local regulations before permit submission.

0601440SSD 9/04

### **INDUSTRIAL SALES**

P.O. BOX 8 ● WAUKESHA, WI 53187 ● 262/544-4811 ● FAX 262/544-4854

Rev 09/02/04



## EMISSION ESTIMATES FOR PERMIT 1280-00-06

SUMMARY OF GASEOUS POLLUTANTS			
Emergency Standby Diesel Generator			
Assume that the engine is limited to operating 50 hours per year.			
Emissions are also based on a fuel consumption rate of 5.2 gallons per hour.			
The John Deere engine has a typical maximum horsepower rating of 17.8 hp.			
POLLUTANT	LBS/HOUR	LBS/DAY	TONS/YEAR
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	1.04	.46	.026
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	.04 <sup>(2)</sup>	.017	.001
<b>Particulate Matter PM<sub>10</sub></b>	.02	.009	.0005
<b>Carbon Monoxide (CO)</b>	.74	.32	.02

- 1) Can not exceed 50 hours per year
- 2) SO<sub>x</sub> (as SO<sub>2</sub>)  $3.67 * (\text{wt } 0.05\%S) = 1835 \text{ g/hp-hr}$
- 3) Emission estimates taken from Manufacturer's data and EPA's emission factors for CO & SO<sub>2</sub>

Equivalents weights and molecular weights for:

Liquefied Petroleum Gas = 90,500 Btu/gal

Propane,  $\rho @ 60^\circ \text{F} = 4.24 \text{ lb/gal}$

Distillate oil = diesel 137,000 Btu/gal

gallons to ft<sup>3</sup> multiply by 7.481

Propane density @ 32° F = .1254 lbs/ft<sup>3</sup>

Propane Btu/lb @ 60° F = 21,700 Btu/lb

Distillate oil = diesel 137,000 Btu/gal

ft<sup>3</sup> To gallons multiply by 7.481