



June 25, 2006

Transmittal Letter

To: Theodore D. Schade, Air Pollution Control Officer
Great Basin Air Pollution Control District
Permit Services
157 Short Street
Bishop, CA 93514

RE: Application for Air Quality Permit at our "Mammoth H.S." Site

Enclosed please find applications for a standby generator at a Verizon Wireless site at 1601 Meridian Boulevard, Mammoth Lakes, CA 93546.

1. Cover Letter
2. A check for \$50
3. Justification of generator operation schedule
4. Application Section A-1
5. Application Section A-6
6. Supplemental Information for Authority to Construct
7. Exhibit 1 - Approved Construction Drawings of the Site
8. Exhibit 2 - Manufacturer's Generator Specifications Sheet
9. Exhibit 3 - Manufacturer's Statement of Exhaust Emissions
10. Exhibit 4 - Manufacturer's Generator Installation Instructions
11. Exhibit 5 - Manufacturer's Engine Model Summary
12. Appendix A - Directions to site from SJVUAPCD Offices
13. Appendix B - Aerial photo with 1000 ft. radius
14. Appendix C - Underlying and adjacent property information
15. Appendix D - Generator Survey
16. Appendix E - Assessor's Parcel Map
17. Appendix F - Fire Department Requirements
18. Appendix G - Confirmation of Generator Specifications
19. Appendix H - School Proximity Map

Ridge Communications is submitting this application on behalf of our client, Verizon Wireless. Ridge Communications is the contact for this application, so please call if you have any questions.

Thank you,

A handwritten signature in black ink that reads "Daniel Menta". The signature is fluid and cursive, written over the printed name.

Daniel Menta, Construction Manager
Ridge Communications, Central Valley Office
4249 Parker Avenue, Suite K
Bakersfield, CA 93309
310-663-5644
661-458-2111 fax



Verizon Wireless – “Mammoth H.S.” Site
1601 Meridian Blvd.
Mammoth Lakes, CA 93546

Introduction

Verizon Wireless is undertaking a large expansion project to add coverage to the residences and businesses in the California Central Valley. This project will increase the service area to Verizon’s existing network in the area. Verizon maintains a strong customer base in Mammoth Lakes and strives to expand and improve coverage for both current and potential customers. This network development will increase public safety within the surrounding area and bring wireless service to areas that are currently underserved.

A ground lease at this location will contain the associated radio equipment. This unmanned facility will provide service to the area residents and businesses 24 hours a day, 7 days a week. This site will serve as a backup to the existing landline service in the area and will provide for mobile telecommunications so essential to modern commerce and recreation.

Safety Benefits of Improved Wireless Service

Mobile phone use has become an extremely important system for public safety. Along roads and highways without public call boxes, mobile phones are the only means for emergency roadside communication. Motorists with disabled vehicles can use their phones to call in and request appropriate assistance. With good cellular coverage along important roadways, emergency response is readily available. Furthermore, as a back up system to traditional landline phone service, mobile phones have proven to be extremely important during natural disasters and catastrophes.

Verizon has taken the responsibility for back up service very seriously. As such, Verizon incurred increased expense to install a back up generator at this facility to insure quality communications for the surrounding community regardless of any disaster or catastrophe.

Emergency Standby Generator and Batteries

Verizon Wireless installs an emergency back up generator and batteries at all of its cell sites. The generator and batteries serve a vital role in Verizon’s emergency and disaster preparedness plan. In the event of a power outage, Verizon’s communication equipment will first transition over to back up batteries. The batteries can run the site for a few hours depending on the demand placed on the equipment.

Should the power outage extend beyond the capacity of the batteries, the back up generator will automatically start and continue to run the site. This two stage back up plan is an extremely important component of every Verizon communications site. As one of the nation’s largest wireless companies, Verizon is the mobile phone service of choice for many federal, state and local public safety agencies. While many public safety agencies employ their own two-way radio systems for intra-agency communications, Verizon phones are often the link to other agencies and the outside world. Back up batteries and generators allow Verizon communications sites to continue providing valuable communications services in the event of a power outage, natural disaster or other emergency.

The manufacturer’s stated emissions levels are maximum levels based upon standard #2 diesel fuel, but considering mandated fuel characteristics in California, actual emissions levels are expected to be lower.

Convenience Benefits of Improved Wireless Service

Modern day life has become increasingly dependent on instant communications. Families must remain in contact, businesses must maintain supply and delivery schedules and students must research and confer. Wireless communications are no longer a convenience, they are an integral part of modern life.

Compliance with Communication Facility Requirements

Verizon Wireless will obtain approval from all local, state and federal authorities having jurisdiction over this project.



Great Basin Unified Air Pollution Control District

Section A-1	Authority To Construct / Permit To Operate Application	General Information
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Reason for Application (Check one)	<input checked="" type="checkbox"/> New Source	<input type="checkbox"/> Modification to Existing Source	<input type="checkbox"/> Change of Ownership
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- A. Section A-1, pages 1 & 2 must be filled out COMPLETELY for EACH article, machine, equipment, contrivance or secondary source requiring a permit.
 B. A FILING FEE of \$50.00 paid by check, or money order must accompany EACH application.

1. Permit to be issued to:
 Verizon Wireless – "Mammoth H.S." Site

2. Mailing Address:

255 Parkshore Dr. Building B	Folsom	CA	95630
Street or PO Box	City or Town	State	Zip Code

3. Type of Organization:

<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual Owner	<input type="checkbox"/> Partnership	<input type="checkbox"/> Government Agency
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4. Person to Contact on Air Pollution Matters:

Location Unmanned	N/A	N/A
Name	Title	Telephone Number

5. Exact Source Location – include Name and Location (County or City):
 1601 Meridian Blvd., Mammoth Lakes, CA 93546

6. Pursuant to the provisions of the Health and Safety Code of the State of California and the Rules and Regulations of the Great Basin Unified APCD, application is hereby made for and AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE the following article, machine, equipment, contrivance or secondary source:
 One (1) Standby Diesel Generator: Generac Model SD060, 96 bHp, 60kW

7. Owner or Certified Official:

Shawn Stacy	Verizon Environmental Supervisor	866-694-2415
Name	Title	Telephone Number

8. Signature: Shawn Stacy Date: 7/10/06

DO NOT WRITE BELOW (APCD USE ONLY)

DATE RECEIVED STAMP	APPLICATION NUMBER	UTM COORDINATES		SECTIONS COMPLETED			
	FILING RECEIPT	COUNTY		A-1			
	FEE SCHEDULE	CITY		1	2	3	4
	RENEWAL FEE	ACKNOWLEDGEMENT SENT:		A-2			
	SIC CODE	DATE:		1	2	3	
RECEIVED BY: <u>DS</u>		BY:		A-3			
				1	2	3	
				A-4			
				A-5			

A-6
 Also: engineering info.



Great Basin Unified Air Pollution Control District

Section A-1	Authority To Construct / Permit To Operate Application	General Information
9. Person Completing Form: Daniel Menta Construction Manager. 310-663-5644		Date: APCD Appl. No.
10. List the Products Manufactured and/or Services Performed at this Facility: This facility provides wireless communications service as part of Verizon Wireless' network.		
11. Complete the dates applicable to your planned project, estimating dates as closely as possible.		
MILESTONES	STARTING DATE	COMPLETION DATE
Site Selection	12/14/2004	01/13/2005
Design and Specs	01/13/2005	04/26/2006
Construction Contract Let	07/07/2006	10/20/2006
New Source Construction	09/13/2006	10/20/2006
Modification of Existing Equip.	N/A	N/A
Final Source Emission Testing	N/A	N/A
Transfer of Location	N/A	N/A
Transfer of Ownership	N/A	N/A



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street * Bishop, California 93514 * (760) 872-8211 * Fax (760) 872-6109

Section A-6

Diesel Fired ICE Permit Application pursuant to Health &
Safety Code ' 93115 (e)(4)(A)3.

ENGINE INFORMATION : (use a separate form for each engine)

Engine Manufacturer: John Deere

Model Name: 5030HF270B

EPA 12-Character Family Name: 4JDXL03.0064

Serial Number: _____

Year of Manufacture: 2006

Maximum Rated Brake Horsepower (bhp): 96

Stack Height from Ground (feet): 8.5, Exhaust Stack Diameter (inches): 3

Direction of Stack (horz. or vert): Vertical, End of Stack (open or capped): Capped – Sheet Metal Hood

Physical Location of the Engine

(address or UTM coordinates): 1601 Meridian Blvd., Mammoth Lakes, CA 93546

OPERATIONAL INFORMATION

Describe the General Use of the Engine: Power Generation – Standby Generator

Typical Load (percent of maximum bhp rating): 75%

Typical annual hours of operation: 49.5 hours per year non-emergency usage

If seasonal, months of year operated: N/A

If seasonal, typical hours per month operated: N/A

Fuel usage rate (if available) gallons/hour: 5.2 Gal. per Hour at 100% load

Maximum operating schedule: Hourly N/A, Daily 0.95hr.s, Quarterly 12.375hr.s, Yearly 49.5hr.s,

Fuel used (circle one): CARB Diesel, Jet fuel, Diesel, Alternative diesel fuel (specify), Alternative fuel (specify), Combination (Dual fuel)(specify), Other (specify): CARB #2 Ultra Low-Sulfur Diesel

EXHAUST CONTROL TECHNOLOGY

Pollution Control Equipment (circle): Turbo Charger, Aftercooler, Catalyst, Injection Timing Retarding, Diesel Particulate Filter, Other: _____

Is the engine equipped with an exhaust after-treatment system (e.g., a particulate filter, catalyst), or other modification to the engine to reduce exhaust emissions? If yes, please provide the name of the manufacturer, model, and the CARB executive order number. Please attach a photocopy of the manufacturers= product literature: _____

If a Diesel Particulate Filter (DPF) is used, identify the type of back pressure monitor that will be installed. Attach a copy of the manufacturers= literature.

Manufacturer: Generac, Model Name: SD060

Serial Number: TBD at delivery, Pressure & Temperature Range: See Exhibit 2, Page 3

EMISSION FACTORS

Emission factors form the basis for calculating the mass emissions from the engine. The District will use default emission factors based on the engine=s EPA Tier standard. Older engines are assigned the current EPA AP-42 emission factors. If another reference measure is selected, provide the specific basis and attach detailed supporting documentation.

AP-42 emission factors	Lbs/hr <small>Generac</small>	Lbs/day	Tons/year
PM ₁₀ 1.0 g/bhp-hr	1.98 x 10e-4	4.752 x 10e-3	8.6724 x 10e-4
NOx (as NO ₂) 14.1 g/bhp-hr	0.01	0.24	0.0438
NMHC 1.12 g/bhp-hr			
CO 3.0 g/bhp-hr	NA	NA	NA
SOx (as SO ₂) 3.67 * wt%S g/bhp-hr			

hint: 454 grams = 1 pound

RECEPTOR INFORMATION (a receptor is any location outside the boundaries of a facility where a person may be exposed to diesel exhaust due to operation of the engine.)

Nearest receptor description (receptor type): Sierra High School Multi Purpose Admin. Bldg.

Distance to nearest receptor (feet): 292 ft

Distance to the nearest school (feet): 292 ft

AB2588 INVENTORY

Is this engine included in an existing AB2588 inventory (yes or no): NO

Supplemental information for Authority to Construct/Permit to Operate Application
Verizon Wireless – “Mammoth H.S.” Site

1. Supplemental Application: Attached.
2. Equipment Location Drawing or Plot Plan: See attached Construction Drawings, Exhibit 1.
3. Equipment Description: See attached Manufacturer’s Data Sheet, Exhibit 2.
4. Description of Operations: The entirety of this process will be the installation of a Generac model SD060 diesel generator. There are no foreseeable air pollution issues involved during the initial installation. The purpose of the generator itself is to provide emergency power to the facility in the event of a power outage. Aside from providing standby emergency power, the generator will be used for no more than 0.95 hours each week for testing. All pertinent information on particle emissions and emissions reduction can be found in the supplemental application form, the included Manufacturer’s Data Sheet (Exhibit 2) or the included Manufacturer’s Statement of Exhaust Emissions (Exhibit 3).
5. Expected Emissions of Air Contaminants: See Supplemental Application Form or attached Manufacturer’s Statement of Exhaust Emissions, Exhibit 3. The engine in question has not been tested for carbon monoxide production. An engine in the same family has been rated at 0.74 grams per horsepower-hour. The manufacturers believe the carbon monoxide production of this particular engine is relatively close to this rating. Because it is a certified non-road engine, this would be below the 3.7g/hp-hr limit.
6. Operating Schedule: See Supplemental Application Form.
7. Process Weight: See Supplemental Application Form.
8. Fuels and Burners Used: Ultra-Low Sulfur CARB #2 Diesel Fuel, Internal Combustion
 - Heating Value: 142,803 Btu/gal
 - Sulfur Content: Less than 15 parts per million
 - Nitrogen Content: 7.6 parts per million
 - Carbon Monoxide Production: The engine in question has not been tested for carbon monoxide production. An engine in the same family has been tested and rated at 0.74 grams per horsepower-hour. The manufacturers believe that the carbon monoxide production of the engine that Verizon Wireless will be installing at the site is relatively close to this tested rating. Because it is a certified non-road engine, this would be below the 3.7g/hp-hr limit.
 - API gravity: 25-35°
 - Preheat Temp: Not Applicable
 - Viscosity: 150 SSU at less than 0° F
 - Atomization Type: Fuel Injection
 - Excess Combustion Air Percentage: Approximately 200%
 - Gallons Per Hour: 5.2
 - Surface area of exhaust vents: 144,000 mm² - 288 slots @ 10 mm x 50 mm
 - Year of Generator Manufacture: 2006
9. Process and Instrumentation Flow Diagram: See attached Manufacturer’s Data Sheet, Exhibit 2.
10. Equipment Drawings: See attached Installation Diagram, Exhibit 4.

LEASOR'S PROPERTY DESCRIPTION:

THAT PORTION OF GOVERNMENT LOT 3, SECTION 36, TOWNSHIP 3 SOUTH, RANGE 27 EAST, MOUNT Diablo MERRIAM, MONO COUNTY, CALIFORNIA, PER THE OFFICIAL PLAT THEREOF APPROVED NOVEMBER 13, 1988, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 3, ALONG THE NORTH LINE OF SAID LOT 3 SOUTH 89°59'47" WEST 194.33 FEET TO A POINT ON THE SOUTH LINE OF SAID LOT 3 THENCE SOUTH 89°59'47" WEST 194.33 FEET TO THE SOUTHWEST CORNER OF SAID LOT 3 THENCE NORTH 0°00'00" EAST 94.81 FEET TO THE POINT OF BEGINNING.

LESS THE FOLLOWING TWO PARCELS:

NO. 1: THAT CERTAIN REAL PROPERTY IN THE TOWN OF MAMMOTH LAKES, COUNTY OF MONO, STATE OF CALIFORNIA, BEING A PORTION OF GOVERNMENT LOT 3 IN SECTION 36, TOWNSHIP 3 SOUTH, RANGE 27 EAST, MOUNT Diablo MERRIAM, ACCORDING TO THE OFFICIAL PLAT THEREOF APPROVED NOVEMBER 13, 1988, AND SAID PARCEL ALSO BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

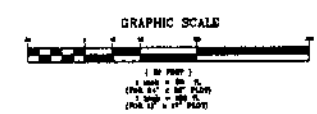
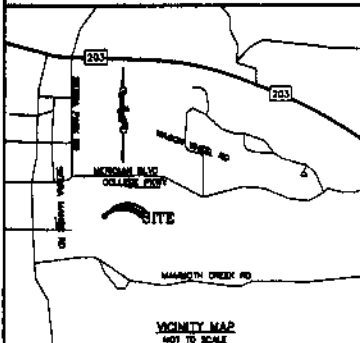
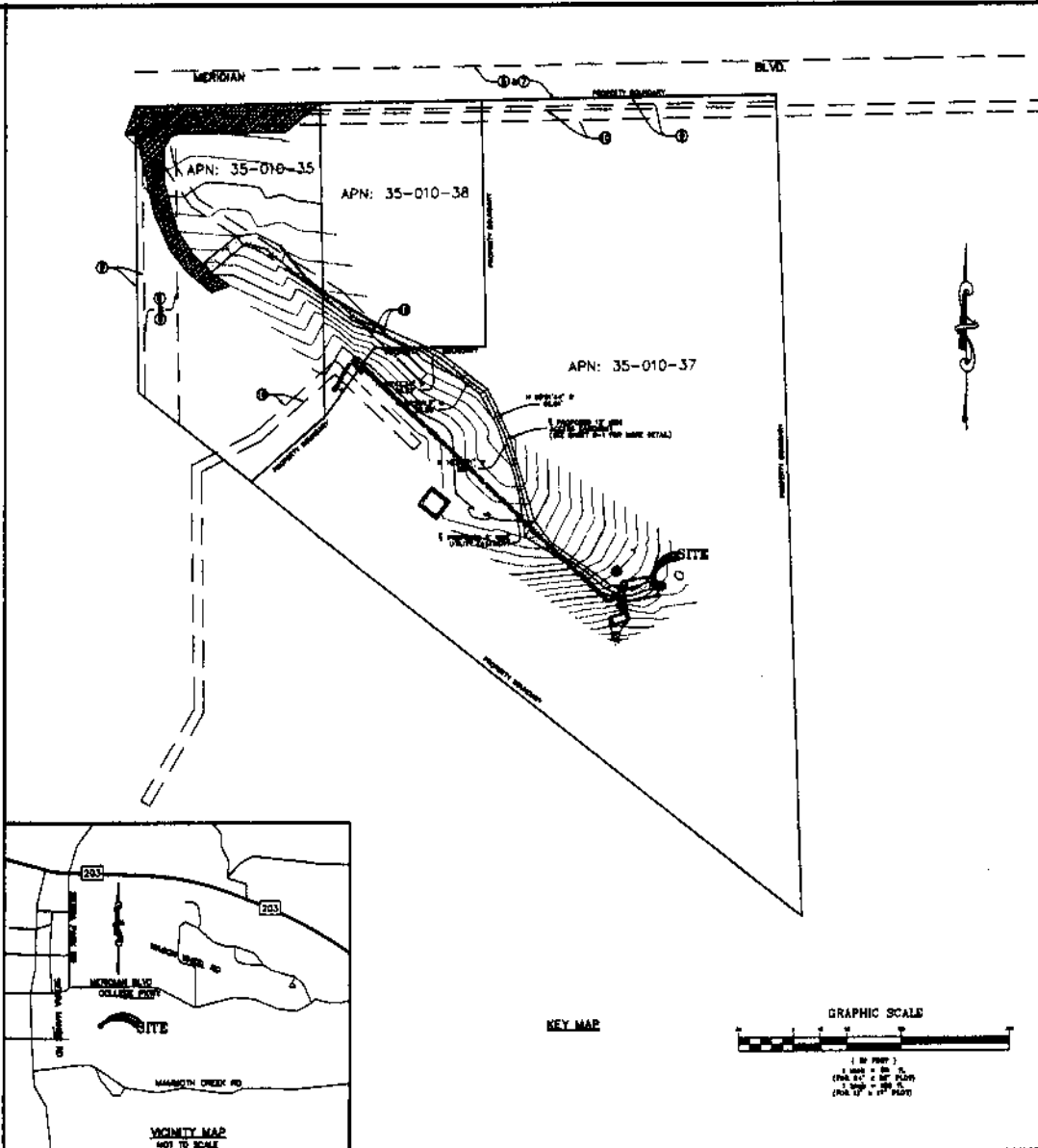
BEGINNING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 3 THENCE ALONG THE WEST LINE OF SAID GOVERNMENT LOT 3 SOUTH 0°00'00" WEST 418.44 FEET TO LINE AS SHOWN AND ADJACENT TO SAID OFFICIAL PLAT THENCE ALONG THE SOUTHWESTERLY LINE OF SAID GOVERNMENT LOT 3 SOUTH 89°59'47" EAST 144.18 FEET THENCE LEAVING SAID SOUTHWESTERLY LINE NORTH 89°59'47" EAST 144.77 FEET THENCE NORTH 0°00'00" WEST 484.57 FEET TO THE NORTH LINE OF SAID GOVERNMENT LOT 3 THENCE ALONG SAID NORTH LINE NORTH 89°59'47" WEST 274.88 FEET TO THE POINT OF BEGINNING.

NO. 2: THAT CERTAIN REAL PROPERTY IN THE TOWN OF MAMMOTH LAKES, COUNTY OF MONO, STATE OF CALIFORNIA, BEING A PORTION OF GOVERNMENT LOT 3 IN SECTION 36, TOWNSHIP 3 SOUTH, RANGE 27 EAST, MOUNT Diablo MERRIAM, ACCORDING TO THE OFFICIAL PLAT THEREOF APPROVED NOVEMBER 13, 1988, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 3 THENCE SOUTH 0°00'00" WEST 478.18 FEET TO THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 3 THENCE SOUTH 89°59'47" EAST ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 3 214.18 FEET TO THE MOST SOUTHWEST CORNER OF THE PARCEL OF LAND BOUNDARY TO MONO COUNTY BOARD OF EDUCATION PER SAID DEED RECORDED AS INSTRUMENT NUMBER 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY THENCE ALONG THE SOUTH LINE OF SAID PARCEL NORTH 89°59'47" EAST 144.77 FEET TO THE TRUE POINT OF BEGINNING. THE SOUTH EAST CORNER OF SAID PARCEL BOUNDARY TO MONO COUNTY BOARD OF EDUCATION PER SAID DEED RECORDED AS INSTRUMENT NUMBER 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY THENCE SOUTH 89°59'47" EAST ALONG THE NORTH LINE OF SAID GOVERNMENT LOT 3 248.08 FEET THENCE ON A BEARING OF SOUTH 89°59'47" WEST THENCE NORTH 89°59'47" WEST 188.08 FEET THENCE SOUTH 89°59'47" WEST 133.68 FEET TO THE TRUE POINT OF BEGINNING.

EXISTING ENCUMBRANCES:

1. THE LHA OF SUPPLEMENTAL TAXES IF ANY, ASSESSED PURSUANT TO THE PROVISIONS OF CHAPTER 3.12 OF THE MAMMOTH LAKES CODE OF THE STATE OF CALIFORNIA.
2. THE MAMMOTH COMMUNITY WATER DISTRICT AND IS SUBJECT TO ANY FUTURE WATER RATE ADJUSTMENTS.
3. THE MAMMOTH COMMUNITY WATER DISTRICT AND IS SUBJECT TO ANY FUTURE WATER RATE ADJUSTMENTS.
4. ANY OTHER ENCUMBRANCES, RIGHTS AND OTHER INTERESTS THAT MAY BE INCURRED BY AN ESTATE OR ANY OTHER PARTY TO THIS INSTRUMENT.
5. SUBJECT TO THE FOLLOWING, AN EASEMENT IN THE UNITED STATES OF AMERICA IN FAVOR OF MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
6. ALL THE EASEMENTS, RIGHTS AND OTHER INTERESTS THAT MAY BE INCURRED BY AN ESTATE OR ANY OTHER PARTY TO THIS INSTRUMENT.
7. THE MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
8. THE MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
9. THE MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
10. AN EASEMENT FOR ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS, IN FAVOR OF MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
11. AN EASEMENT FOR THE TRANSMISSION OF ELECTRIC ENERGY FOR COMMUNICATIONS, TELECOMMUNICATIONS, INTERACTIVE VIDEO, TELEVISION, REMOTE CONTROL AND/OR OTHER PURPOSES, IN FAVOR OF MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
12. AN EASEMENT FOR THE TRANSMISSION OF ELECTRIC ENERGY FOR COMMUNICATIONS, TELECOMMUNICATIONS, INTERACTIVE VIDEO, TELEVISION, REMOTE CONTROL AND/OR OTHER PURPOSES, IN FAVOR OF MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
13. THE EFFECT OF AN INSTRUMENT ENTITLED "MAMMOTH-PURCHASE AGREEMENT" BY AND BETWEEN MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AND MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
14. A LEASE BY AND BETWEEN MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AND MAMMOTH LAKES HIGH SCHOOL, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
15. AN EASEMENT FOR UNDERGROUND WATER TRANSMISSION PIPELINE, IN FAVOR OF MAMMOTH COMMUNITY WATER DISTRICT, MONO COUNTY, CALIFORNIA, AS SET FORTH IN INSTRUMENT NO. 2002088488 ON JULY 26, 2002 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
16. BASED UPON THE INFORMATION PROVIDED TO THE COMPANY UNDER THIS ORDER, THE POLICY (SEE TO BE ISSUED) THAT LAND IS TO BE COVERED BY THIS PRELIMINARY REPORT AND THE POLICY (SEE TO BE ISSUED) THAT THE COMPANY HAS NO OBLIGATION TO PROVIDE A PRELIMINARY REPORT IF THAT WHICH WAS REQUESTED, HOWEVER, THE COMPANY MAKES NO SUCH REPRESENTATIONS, PLEASE VERIFY THAT THE DESCRIPTION OF THE LAND IS ACCURATE AND THE LAND IS AS SHOWN IN THE PLAT WHICH THE PARTIES HERIN TO BE COVERED BY THE POLICY (SEE TO BE ISSUED) UNLESS THE COMPANY IS ADVISED TO THE CONTRARY IT WILL PROCEED ON THE ASSUMPTION THAT THE LAND DESCRIBED IN THIS PRELIMINARY REPORT IS TO BE COVERED BY THE POLICY (SEE TO BE ISSUED) UNLESS THE COMPANY IS ADVISED TO THE CONTRARY, NOT PLOTTABLE BY NATURE OF TITLE.



ALL APPLICANTS AND OTHERS INTERESTED IN THIS PROJECT SHOULD CONTACT THE COUNTY RECORDER OF SAID COUNTY AT THE FOLLOWING ADDRESS: COUNTY RECORDER, 1000 N. GARDEN AVENUE, MAMMOTH LAKES, CA 93546.

REVISION	DATE	BY
1	06/15/04	JAC
2	06/15/04	JAC
3	06/15/04	JAC
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DATE	BY	REVISION
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06/15/04	JAC	28
06/15/04	JAC	29
06/15/04	JAC	30

DATE: 06/15/04
 DRAWN BY: JAC
 CHECKED BY: JAC
 DATE PLOTTED: 06/15/04
 SHEET NO.: 07-017

SITE NAME:
 MAMMOTH HIGH SCHOOL

SITE #:
 181010

SITE ADDRESS:
 1601 MERIDIAN BLVD.
 MAMMOTH LAKES
 CA 93546

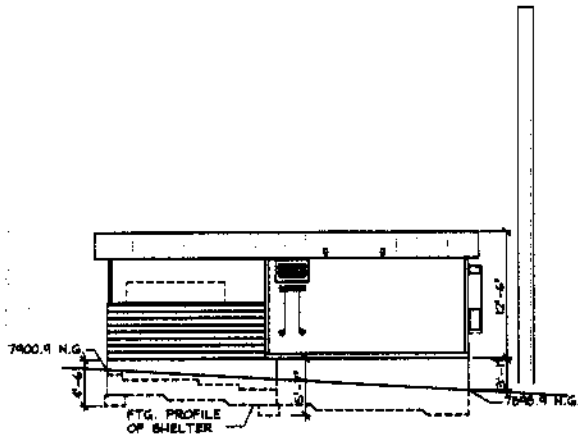
COUNTY:
 MONO COUNTY

SHEET TITLE:
 KEY MAP

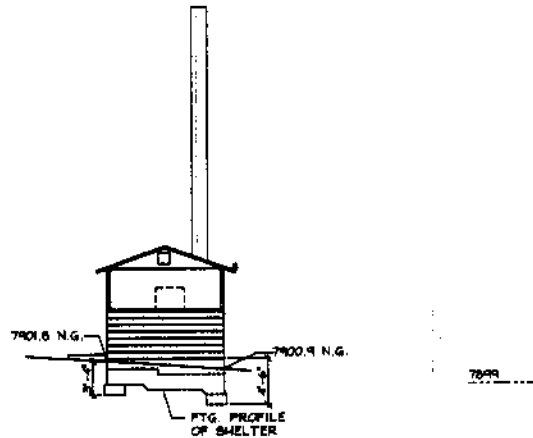
SHEET:
 C-1

4 1/16" X 11 3/16" (standard) A/C (standard) 1 1/2" X 1 1/2" (standard) 7 / 27X 7000000

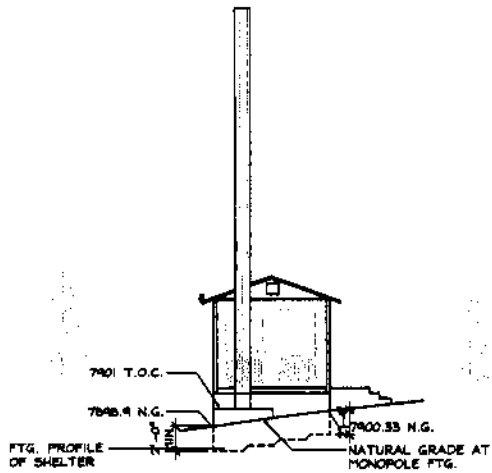
NOTE: THIS PROJECT WILL HAVE A
 MINIMAL DISTURBANCE OF EXISTING
 VEGETATION. ANY DISTURBED
 AREAS SHALL BE RE-VEGETATED
 BY VERIZON WIRELESS (PER COA
 ITEM #10)



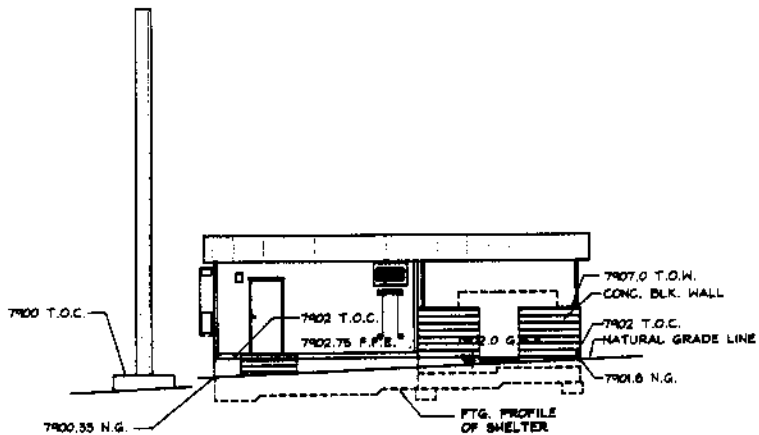
NORTH ELEVATION 3/16" = 1'-0"



EAST ELEVATION 3/16" = 1'-0"



WEST ELEVATION 3/16" = 1'-0"



SOUTH ELEVATION 3/16" = 1'-0"



ARCHITECTS

VERIZON WIRELESS

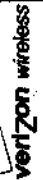


PROJECT MANAGER

12667 ALICORTA BLVD.
SAN RAMON, CA 94583

TELEPHONE 925-496-2345

FAX 925-496-2344



MAMMOTH HIGH SCHOOL
 1601 MERRIAM BLVD.
 MAMMOTH LAKES, CA 93546

SITE #181010

DATE: 08/18/09

BY: [Signature]

CHECKED BY: [Signature]

DATE: 08/18/09

BY: [Signature]

CHECKED BY: [Signature]

DATE: 08/18/09

BY: [Signature]

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DATE: 08/18/09

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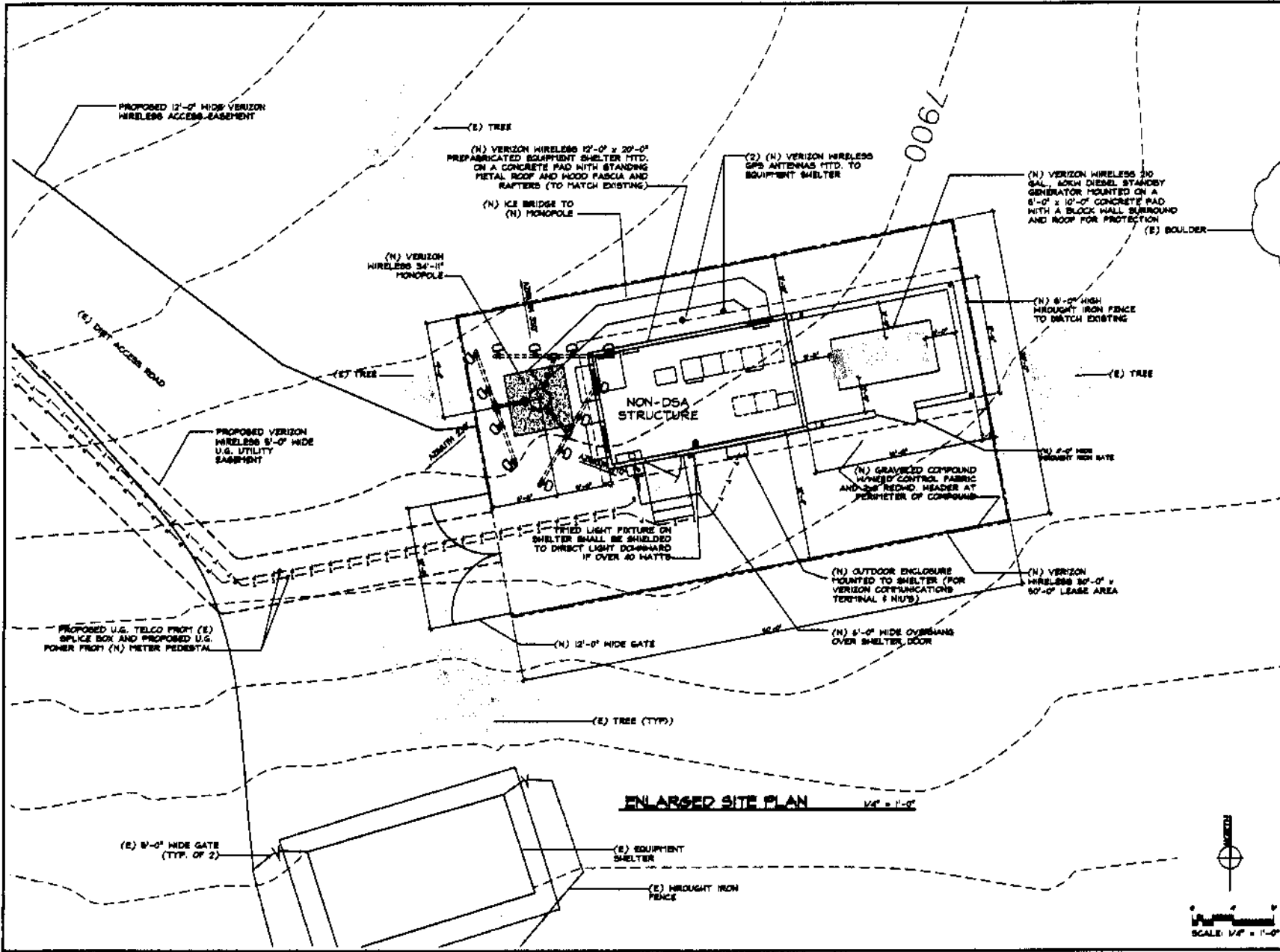
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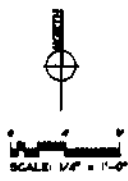
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G-2

11/20/14 10:40 AM (MWD) - 11/20/14 10:40 AM (MWD) - 11/20/14 10:40 AM (MWD)



ENLARGED SITE PLAN 1/4" = 1'-0"





VLSA
ARCHITECTS
VERNON & LIND



PROJECT NUMBER

12001 ALBERTA BLVD.
SAN RAMON, CA 94583

TELEPHONE 925-466-1240
FAX 925-466-1241

verizon wireless

LANAMOTH HIGH SCHOOL
1801 MERRIAM BLVD.
LANAMOTH LAKES, CA 94546

SITE #181010

DATE	11/20/14
BY	MWD
CHECKED	
APPROVED	
DATE	
BY	
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APPROVED	
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BY	
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BY	

OWNER
ENLARGED SITE PLAN

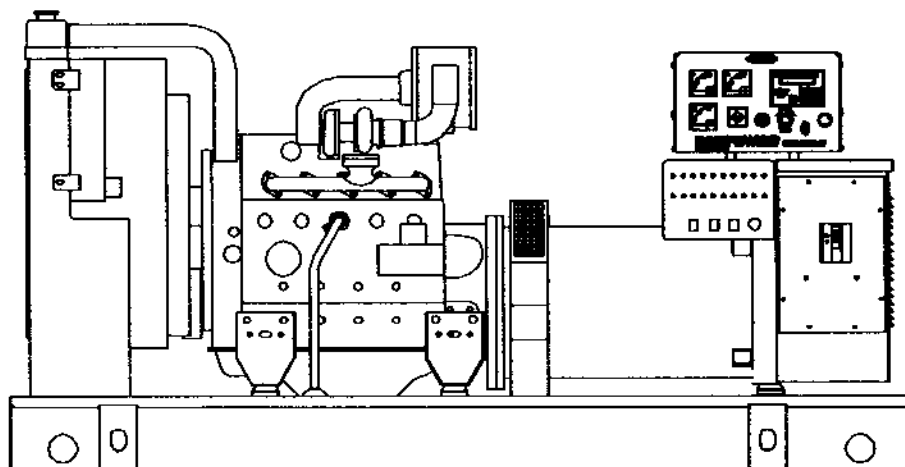
A-2

SD060

Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating
60KW 60 Hz

Prime Power Rating
48KW 60 Hz



Power Matched
DEERE 3.0 DTA ENGINE
Turbocharged / Aftercooled

VERIZON WIRELESS
60 kW Diesel Models:
04812-3 120/240 1# Open Set
04813-3 120/208 1# Acoustic Enclosed
04864-3 120/208 3# Open Set
04865-3 120/208 3# Acoustic Enclosed

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ✓ ELECTRO-MAGNETIC INTERFERENCE
 - ✓ NEMA MG1-22 EVALUATION
 - ✓ MOTOR STARTING ABILITY
 - ✓ SHORT CIRCUIT TESTING
 - ✓ UL 2200
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized

- FAST RESPONSE to changing load conditions and **MAXIMUM MOTOR STARTING CAPABILITY** by electronically torque-matching the surge loads to the engine.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.
- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.
- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.
- **GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.

GENERAC®

POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

SD060

GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION.....	Class H
STATOR INSULATION	Class H
TOTAL HARMONIC DISTORTION	<3%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	1
COUPLING	Direct, Flexible Disc
LOAD CAPACITY (STANDBY)	100%
LOAD CAPACITY (PRIME)	110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

<input type="checkbox"/> BRUSHLESS	Magnetically coupled DC current ✓
	Eight-pole exciter w/ battery-driven field boost ✓
	Mounted outboard of main bearing ✓
<input type="checkbox"/> PERMANENT MAGNET EXCITER	Eighteen pole exciter ✓
	Magnetically coupled DC current ✓
	Mounted outboard of main bearing ✓
REGULATION	Solid-state ✓
	±1% regulation ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets the temperature rise standards for class "F" insulation as defined by NEMA MG1-32.6, while the insulation system meets the requirements for the higher class "H" rating.
- All prototype models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- All prototype models are tested for motor starting ability by measuring the instantaneous voltage dip with a waveform data acquisition system.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, tooth and skewed stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-32.
- Alternator is self-ventilated and drip-proof constructed.
- Fully life-tested protective systems, including "field circuit and thermal overload protection" and optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

ENGINE SPECIFICATIONS

MAKE	GENERAC/DEERE
MODEL	5030HF270
CYLINDERS	5
DISPLACEMENT	3.0 Liter (186 cu.in.)
BORE	108 mm (4.25 in.)
STROKE	130 mm (5.12 in.)
COMPRESSION RATIO	18:1
INTAKE AIR	Turbocharged/Aftercooled
NUMBER OF MAIN BEARINGS	5
CONNECTING RODS	5-Drop Forged Steel
CYLINDER HEAD	Cast Iron
PISTONS	5-Aluminum Alloy
CRANKSHAFT	Die Forged, Induction Hardened Steel

VALVE TRAIN

LIFTER TYPE	Solid
INTAKE VALVE MATERIAL	Heat Resistant Steel
EXHAUST VALVE MATERIAL	Heat Resistant Steel
HARDENED VALVE SEATS	Replaceable

ENGINE GOVERNOR

<input type="checkbox"/> ELECTRONIC	Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD ...	0.5%
STEADY STATE REGULATION	±0.33%

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Gear
OIL FILTER	Full flow, Cartridge
CRANKCASE CAPACITY	11 Liters (11.7 qts.)

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, Closed Recovery
WATER PUMP	Pre-Lubed, Self-Sealing
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES	6
DIAMETER OF FAN	560 mm (22 in.)
COOLANT HEATER	120V, 1800 W

FUEL SYSTEM

FUEL	#2D Fuel (Min Cetane #40)
	(Fuel should conform to ASTM Spec.)
FUEL FILTER	5 Micron
FUEL INJECTION PUMP	Bosch, Unit type cam driven
FUEL PUMP	Mechanical
INJECTORS	Multi-Hole, Nozzle Type
ENGINE TYPE	Direct Injection
FUEL LINE (Supply)	6.35 mm (0.25 in.)
FUEL RETURN LINE	6.35 mm (0.25 in.)

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	20 Amps at 12 V
STARTER MOTOR	12 V
RECOMMENDED BATTERY	12 Volt, 90 A.H., 27F
GROUND POLARITY	Negative

SD060

OPERATING DATA

	STANDBY		PRIME	
	SD060		SD060	
GENERATOR OUTPUT VOLTAGE/KW-60Hz 120/240V, 1-phase, 1.0 pf 120/208V, 3-phase, 0.8 pf	Rated AMP		Rated AMP	
NOTE: Consult your Generac dealer for additional voltages.	60	250	48	200
	60	208	48	166
MOTOR STARTING KVA Maximum at 35% instantaneous voltage dip with optional alternator; 60 Hz	120/208/240V		120/208/240V	
	164		164	
FUEL				
Fuel consumption—60 Hz	100%	80%	100%	80%
Load gal./hr.	4.8	3.8	4.1	3.3
liters/hr.	18.2	14.4	15.5	12.5
Fuel pump lift	36"		36"	
COOLING				
Coolant capacity	System - lit. (US gal.)	17.0 (4.5)	17.0 (4.5)	
	Engine - lit. (US gal.)	10.4 (2.75)	10.4 (2.75)	
Coolant flow/min.	60 Hz - lit. (US gal.)	106 (28)	106 (28)	
Heat rejection to coolant 60 Hz full load	BTU/hr.	120,500	96,500	
Inlet air to radiator	60 Hz - m ³ /min. (cfm)	212 (7,500)	212 (7,500)	
Max. air temperature to radiator	°C (°F)	60 (140)	60 (140)	
Max. ambient temperature	°C (°F)	48.9 (120)	48.9 (120)	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power	60 Hz - cfm	209	168	
EXHAUST				
Exhaust flow at rated output	60 Hz - m ³ /min. (cfm)	18 (533)	15.3 (450)	
Max recommended back pressure	"Hg	1.5	1.5	
Exhaust temperature 60 Hz (full load)	°C (°F)	524 (975)	459 (858)	
Exhaust outlet size		3.0" O.D.	3.0" O.D.	
ENGINE				
Rated RPM	60 Hz	1800	1800	
HP at rated KW	60 Hz	96	80	
Piston speed	60 Hz - ft./min.	1230	1230	
BMEP	60 Hz - psi	227	189	
DERATION FACTORS				
Temperature				
5% for every 10°C above - °C		25	25	
2.77% for every 10°F above - °F		77	77	
Altitude				
1.1% for every 100 m above - m		1067	1067	
3.5% for every 1000 ft. above - ft.		3500	3500	

STANDARD ENGINE & SAFETY FEATURES

SD060

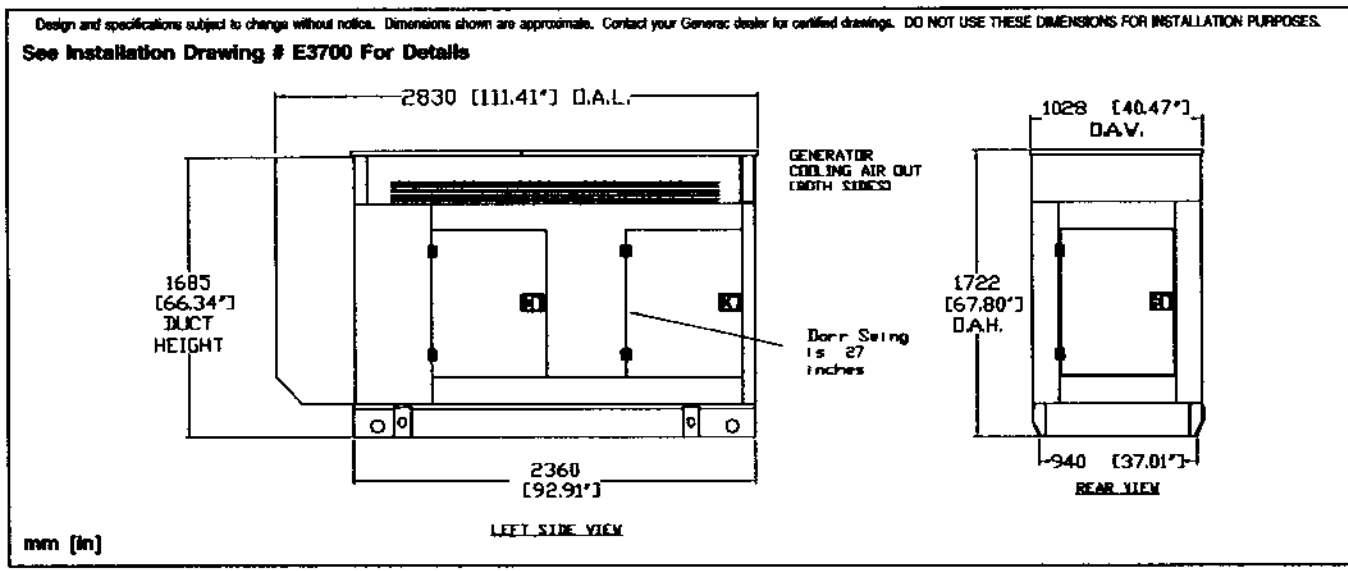
- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Secondary Fuel Filter
- Fuel Shutdown Solenoid
- Batteries 2 - 12 Volt 90 AH
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Composite Battery Box
- Vibration Isolation of Unit to Mounting Base
- 24 Volt, Solenoid-Activated Starter Motor
- Air Cleaner
- Air Cleaner Service Indicator
- Fan Guard (CSA Compliant)
- CSA Guarding
- Critical Grade Muffler (Shipped Loose With Open Unit)
- High Temperature Exhaust Wrap
- Alternator Tropicalization
 - Resists Moisture, Fungus and Abrasives
 - In Addition to Standard Class H Epoxy Impregnation Coating
- Upsized Alternator For Increased Motor Starting
- Propylene Glycol 50/50 Mix Antifreeze
- Oil (19.0 Quarts)
- Coolant Expansion and Recovery Tank
- Extended Factory Test (2.5 Hr.)
 - Stepped Loads
 - Frame Temperature Test
- Specification Sheet Does Not Reflect Any Verizon Wireless Corporate Authorized Variances.
- "E" Control Console - Digital/Analog Hybrid
 - Communication Software for Remote Access
 - Analog Reading AC Volts
 - Analog Reading AC Amps
 - Analog Frequency
 - Emergency Stop Button

- Audible Alarm
- 11 Gauge Control Panel Enclosure
- Programmable Engine Control (See Bulletin #0161310SBY For Details)
- 20 Light Annunciator Generator Alarms
- 8 Form C Dry Contact Output Relays
- 120 Volt Coolant Heater 1800 Watt with 3 Wire Connection Cord
- Mainline Circuit Breaker
 - 200 Amp & 100 Amp - 120/240 Single Phase
 - 200 Amp & 50 Amp - 120/208 Three Phase
- Flexible Fuel Lines
- Fuel Pressure Loss Protection System
- UL2200 Listed
- Basetank
 - 48 Hr. Runtime at 100% Load
 - Double Wall
 - 125% Engine Fluid Containment and Alarms of all Generator Liquids
 - Fuel Level Sender and Visible Level Gauge
 - Rupture Basin Alarm
 - Emergency Vents
 - Check Valve (inlet and return)
 - FM Fusible Link (165°F) Shutoff
 - UL 142 Listed

Consult State and Local Codes for Specific Requirements in your area.

- Five Year Extended Warranty
- Enclosure Options
 - Open Generator Set w/ Duct Adapter
 - Weather Protective Sound Attenuated Enclosure w/ Enclosed Critical Grade Muffler and Flex Exhaust
- 24V Dual-Rate 10 Amp Battery Charger With 120V 3 Wire Connection Cord

Distributed by:



GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

262/544-4811 • FAX 262/544-4851

GENERAC[®]

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_e Rating: 60

Engine Size: 3.0L (John Deere)
4JDLX03.0064

HP at rated kW: 96

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

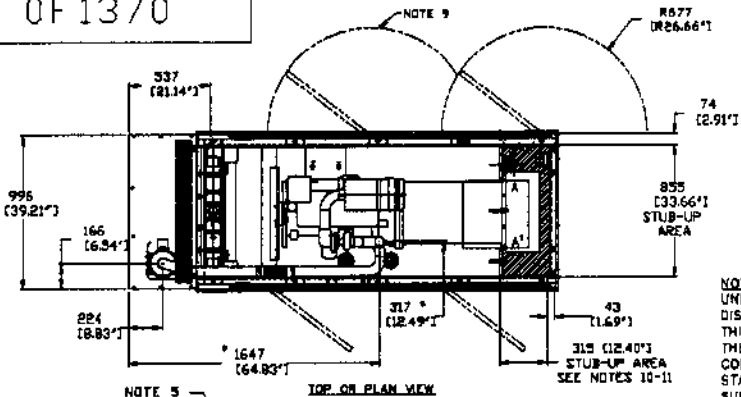
- The stated values are actual exhaust emission test measurements obtained from a unit representative of the generator type and engine described.
- Emission values based on 5-mode testing, are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted 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
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Rev 09/02/04

OF1370



RECOMMENDED ELECTRICAL STUB-UPS
(SEE TOP VIEW)

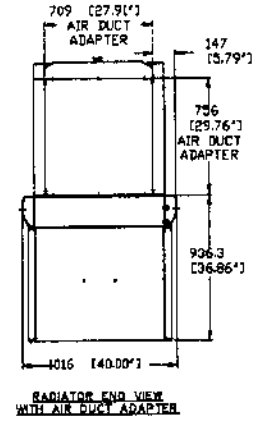
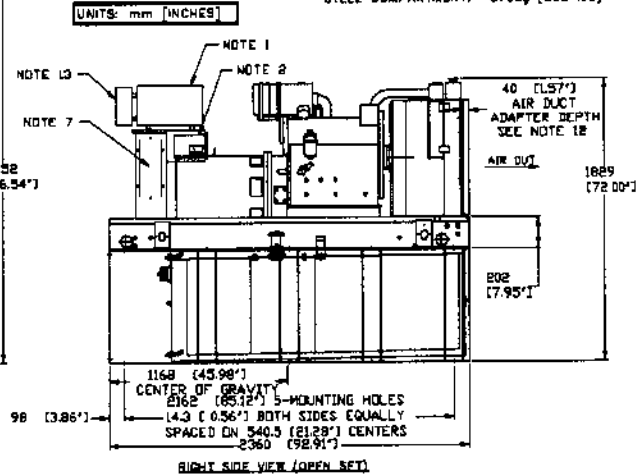
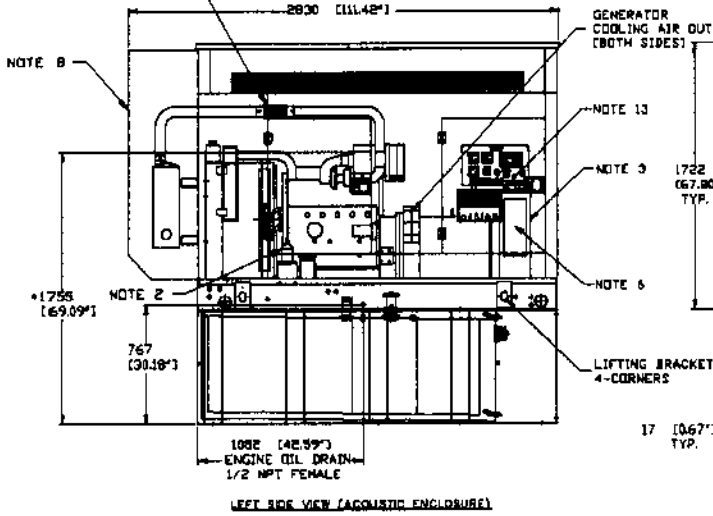
DESCRIPTION	INSIDE BASE
AC LOAD LEAD CONDUIT (100A)	A
AC LOAD LEAD CONDUIT (200A)	A
120/240V AC FOR BATTERY CHARGER AND BLOCK HEATER	B
AC LOAD LEAD CONDUIT HOOK-UP	

ENGINE SERVICE CONNECTIONS
OIL DRAIN = 1/2" NPT COUPLING
EXHAUST OUTLET - FLANGE AS SHOWN ON OPEN SET
3" OD MUFFLER WITH ENCLOSURE

NOTE:
UNIT IS SHIPPED WITH FUEL SUPPLY AND RETURN LINES DISCONNECTED AND PLUGGED BETWEEN ENGINE AND FUEL TANK. THIS HAS BEEN DONE TO FACILITATE PRESSURE TESTING OF THE TANK IN THE FIELD. FOR INFORMATION REGARDING CONNECTING THE FUEL SUPPLY AND RETURN LINES PRIOR TO START UP, SEE THE FUEL TANK FIELD TESTING PROCEDURE SUPPLIED WITH THE PNEUMATIC FUEL TANK TEST KIT.

- NOTES:
- CONTROL PANEL MAY BE ROTATED 180 IN EITHER DIRECTION.
 - STANDARD BLOCK HEATER & BATTERY CHARGER REQUIRE 120V AC CONNECTION.
 - CONNECTION POINTS FOR AC LOAD LEADS AND ENGINE AUTOMATIC START/STOP CONTROL WIRES PROVIDED IN AC CONNECTION PANEL.
 - 24 VOLT NEGATIVE GROUND SYSTEM BATTERY TRAY INSIDE DIMENSIONS: 178 X 342.5 (7" X 13.5")
 - 3" I.D. FLEX EXHAUST, STANDARD WITH COMPARTMENT UNITS.
 - MAIN LINE CIRCUIT BREAKER.
 - 2nd MAIN LINE CIRCUIT BREAKER.
 - ACOUSTIC ENCLOSURE
 - DOORS MUST BE OPENED 90 DEG. TO BE REMOVED.
 - STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
 - 11.A IS THE STUB UP FOR THE UNIT MOUNTED 100A CIRCUIT BREAKER. A.1 IS THE STUB UP FOR THE UNIT MOUNTED 200A CIRCUIT BREAKER.
 - AIR DUCT ADAPTER STANDARD WITH OPEN SET ONLY.
 - 20 LIGHT ANNUNCIATOR (LOCATION DEPENDENT ON OPEN SET OR ACOUSTIC ENCLOSURE CONFIGURATION)
 - SEE DRAWING DF0755 FOR DUCT REMOVAL. REMOVAL OF FRONT DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
- *NOTE: DIMENSIONS TO THE CENTER OF EXHAUST FLANGE SHOULD BE USED AS A REFERENCE FOR OPEN SET ONLY.

WEIGHT DATA
UNIT: 998 kg [2200 lbs]
TANK: 480 kg [1013 lbs]
STEEL COMPARTMENT: 378kg [835 lbs]



GENERAL POWER SYSTEMS SHALL BE THE RESPONSIBLE PARTY FOR THE SUPPLY OF THE SERVICE PANELS TO BE SUPPLIED BY CUSTOMER AND SHALL NOT BE USED FOR ANY PURPOSES OTHER THAN FOR WHICH IT IS SUPPLIED WITHOUT THE EXPRESS WRITTEN CONSENT OF GENERAL POWER SYSTEMS.

© GENERAL POWER SYSTEMS 2004

GEN. WT.		DRAWING TITLE				GENERAL POWER SYSTEMS	
FINAL WT.		INSTALL DRAWING, 3.0L 60KW DIESEL VERIZON WIRELESS				WORKSHEET	
DO NOT SCALE		MATERIAL				FILE NAME	OF1370.DWG
ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994		DWN	RS	DATE	3/31/04	MFG	N/A
UNLESS OTHERWISE SPECIFIED:		CHKD	ADS	DATE	4/2/04	APPD	BCB
ALL XX DIM. --- 84 MM		RELEASED FOR PRODUCTION	BY	B.BAIRD	DATE	04/02/04	SCALE
ALL XXX DIM. --- 84 MM							NTS
ALL XXXX DIM. --- 813 MM							FIRST USE
ALL ANGLES --- 81							3.0L VERIZON
						DWG NO.	OF1370
						SIZE	B
						REV	*



PowerTech™ 5030H Diesel Engine for Generator Set Applications

RATINGS

Prime Power at 1800 rpm (60 Hz) 87 hp (65 kW)
Standby Power at 1800 rpm (60 Hz) 96 hp (72 kW)

PRIME POWER is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 3046 and SAE J1995.

STANDBY POWER is the nominal engine power available at varying load factors for up to 500 hours per year. This rating conforms to ISO 3046 and SAE J1995. The calculated generator set rating range for standby applications is based on minimum engine power (nominal -5%) to provide 100% meet-or-exceed performance for assembled standby generator sets.

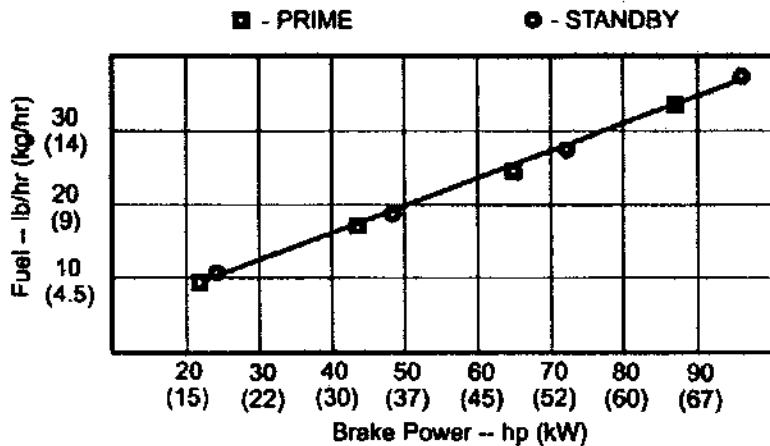
TIER 2 EMISSION CERTIFICATIONS: CARB and EPA



PERFORMANCE DATA

RPM (Hz)	Generator Efficiency %	Fan Power		Power Factor	Calculated Gen Set output			
		hp	KW		Prime		Standby	
					kWe	kVA	kWe	kVA
1800 (60)	88	4.8	3.5	0.8	54	68	60	75

POWER AT 1800 rpm (60 Hz)

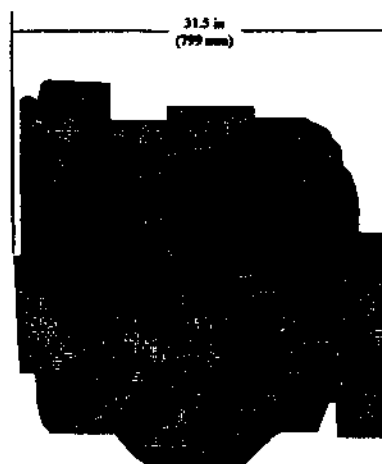
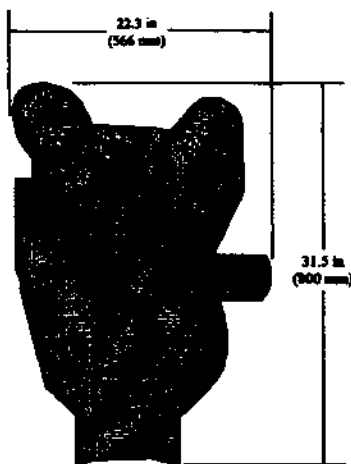


Photographs may show non-standard equipment



PowerTech™ 5030H Diesel Engine for Generator Set Applications

Model	5030HF270	Aspiration	Turbocharged
Number of Cylinders	5	Length--in. (mm)	31.5 (799)
Displacement--L (cu.in.)	3.05 (186)	Width--in. (mm)	22.3 (566)
Bore and Stroke--in. (mm)	3.4 x 4.1 (86 x 105)	Height--in. (mm)	31.5 (800)
Compression Ratio	18.0 : 1	Weight, dry--lb (kg)	633 (287)
Engine Type	In-line, 4-Cycle		



Optimized Gear Train

- Front gear train of two high-contact-ratio gears mounted to the block
- Impressive low noise characteristics

Smooth Engine Operation

- Automatic belt-tensioner and six rib poly-vee drive belt minimize maintenance and increase belt durability

Independent Fan Drive

- Fan drive operates independently of water pump and is available in two heights to adapt to enclosures
- Fan drive ratios above and below 1:1 are available to match specific application requirements

Hydraulic Valve Lifters

- Automatic adjustment eliminates the need for valve-lash adjustment, contributes to lower noise levels in the valve train
- Lowers operating costs

Multiple-Function Component Integration

- Timing gear cover includes water pump housing, oil pump housing, governor housing and sensors
- Rocker arm cover includes intake manifold
- Integration results in higher quality, easier service, and reliability

Independent Water Pump

- Durable cast-iron water pump resists corrosion and pitting for increased wear life

Smooth Engine Operation

- Offers smooth engine operation without balancers
- Decreased vibration reduces operator fatigue and need for instrument and control isolation

Starting Aids

- Quick acting glow plugs are standard equipment and provide exceptional cold weather starting at temperatures as low as -15 degree Fahrenheit
- Optional block heater is available

Innovative Fuel Systems

- Contributes to cost effectiveness and clean design
- Mechanically governed unit pumps mounted inside the block eliminate external high-pressure lines, minimize leak paths and reduce noise level
- The electronic controller is standard equipment and provides isochronous governing, engine stop/start and superior generator set performance

Specifications and design subject to change without notice



John Deere Power Systems
3801 W. Ridgeway Ave.
PO Box 5100
Waterloo, IA 50704-5100
Phone (800) 533-6446
Fax (319) 292-5075

John Deere Power Systems
Usine de Saran
B.P. 11013
F-45401 Fleury les Aubrais Cedex
France
Phone (33) 2 38 82 61 19
Fax (33) 2 38 82 60 00

Engine Model Summary Form

Manufacturer: Deere Power Systems Group of Deere and
 Engine category: Nonroad CI
 EPA Engine Family: 4JDXL83.0084
 Mfr Family Name: 250HA
 sss Code: New Submission

Attachment 1 of 3
 U-R-004-0162

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak HP (for diesel only)	5.Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
5030HF270A	5030H	74 89.24 @ 2800	50.80 @ 2800	39.91 @ 2800	241.18 @ 1800	60.3 @ 1800	28.44 @ 1800	EM SPL, TC, etc

Engine Model Summary Form

Manufacturer: Deere Power Systems Group of Deere and
 Engine category: Nonroad CI
 EPA Engine Family: 4JDXL63.0064
 Mfr Family Name: 250HA
 sss Code: Running Change

Attachment 2 of 3
 U-R-004-0162

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak HP (for diesel only)	5.Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
5030HF270B	5030H	98.56 @ 1800	69.80 @ 1800	35.39 @ 1800				EM EGR

Engine Model Summary Form

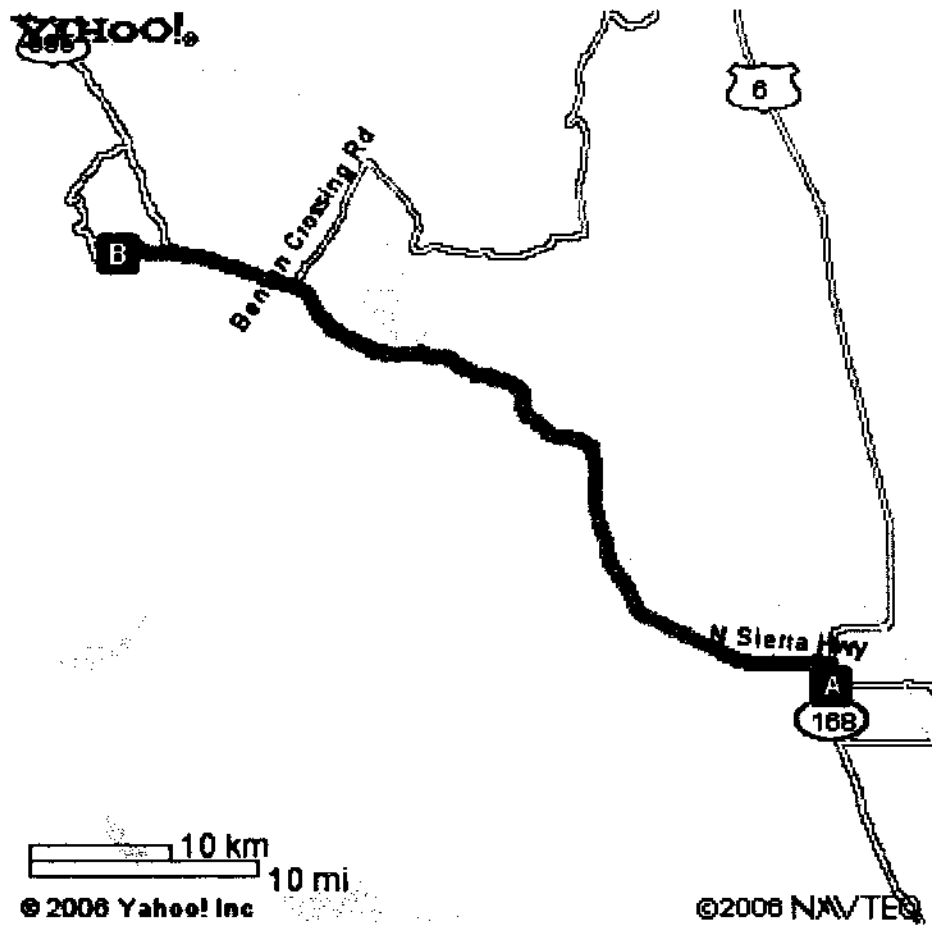
Manufacturer: Deere Power Systems Group of Deere and
 Engine category: Nonroad CI
 EPA Engine Family: 4JDXL83.0084
 Mfr Family Name: 250HA
 sss Code: Running Change

Attachment 3 of 3
 U-R-004-0162

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak HP (for diesel only)	5.Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
5030HT001	5030H	90.52 @ 2800	45.70 @ 2800	35.94 @ 2800	248.53 @ 1800	59.8 @ 1800	28.22 @ 1800	EM EGR

Verizon Wireless – “Mammoth H.S.” Site
1601 Meridian
Mammoth Lakes, CA 93546

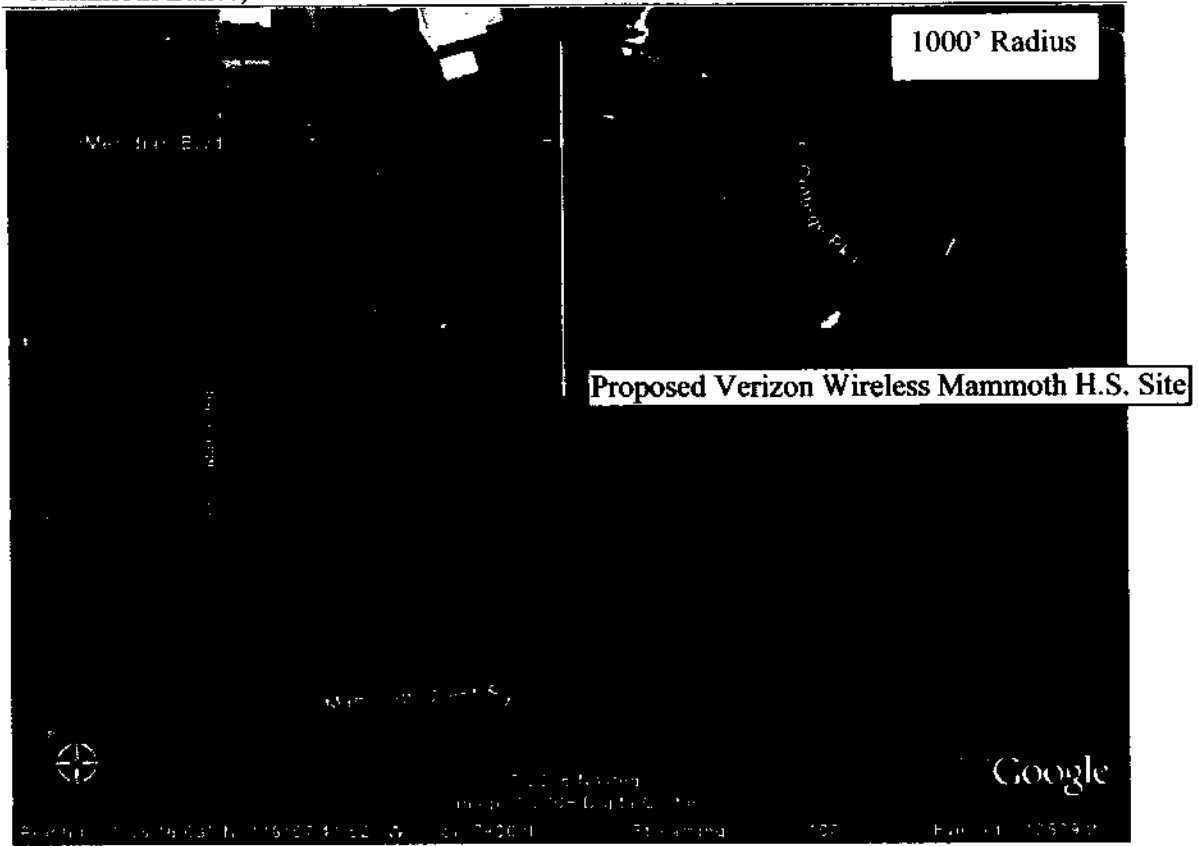
Appendix A
Driving Directions from APCD Offices



1. Start at 157 SHORT ST, BISHOP - go < 0.1 mi
2. Turn **R** on MAIN ST[US-395] - go 0.9 mi
3. Continue to follow US-395 - go 37.9 mi
4. Take ramp toward MAMMOTH LAKES/DEVILS POSTPILE - go 0.3 mi
5. Turn **L** on MINARET RD[CA-203] - go 1.8 mi
6. Turn **L** on MERIDIAN BLVD - go 1.0 mi
7. Arrive at 1601 MERIDIAN BLVD, MAMMOTH LAKES, on the **L**

Verizon Wireless – “Mammoth H.S.” Site
1601 Meridian Blvd.
Mammoth Lakes, CA 93546

Appendix B: Aerial Photos



Verizon Wireless – Mammoth H.S.
1601 Meridian Blvd.
Mammoth Lakes, CA 93546

Underlying and Adjacent Properties: Appendix C

Underlying Property:

Address: 1601 Meridian Blvd.		Zoning: PS	APN: 35-010-37
City: Mammoth Lakes	Zip: 93546	Owner's Name: Mammoth Unified School District	

Underlying Property Owner's Contact:

Name: Richard McAteer		Phone: 760-934-8541	
Address: PO Box 3509		City: Mammoth Lakes	
		Zip: 93546	

Adjacent Property - North:

Address: 1601 Meridian Blvd.		Zoning: PS	APN: 35-010-40
City: Mammoth Lakes	Zip: 93546	Owner's Name: Mammoth Unified School District	

Property Owner's Contact:

Name: Richard McAteer		Phone: 760-934-8541	
Address: PO Box 3509		City: Mammoth Lakes	
		Zip: 93546	

Adjacent Property - South:

Address: 8.5 Acres to the South		Zoning: PS	APN: 35-010-30
City: Mammoth Lakes	Zip: 93546	Owner's Name: Inyo National Forest	

Property Owner's Contact:

Name: N/A		Phone: 760-924-5500	
Address: PO Box 148		City: Mammoth Lakes	
		Zip: 93546	

Adjacent Property - East:

Address: 20 Acres to the East		Zoning: PS	APN: 35-010-33
City: Mammoth Lakes	Zip: 93546	Owner's Name: Kern Community College District	

Property Owner's Contact:

Name: N/A		Phone: 760-934-2875	
Address: 2100 Chester Ave		City: Bakersfield	
		Zip: 93301	

Adjacent Property - West:

Address: 1601 Meridian Blvd.		Zoning: PS	APN: 35-010-44
City: Mammoth Lakes	Zip: 93546	Owner's Name: Mono County Board of Education	

Property Owner's Contact:

Name: Richard McAteer		Phone: 760-932-7311	
Address: PO Box 3509		City: Mammoth Lakes	
		Zip: 93546	

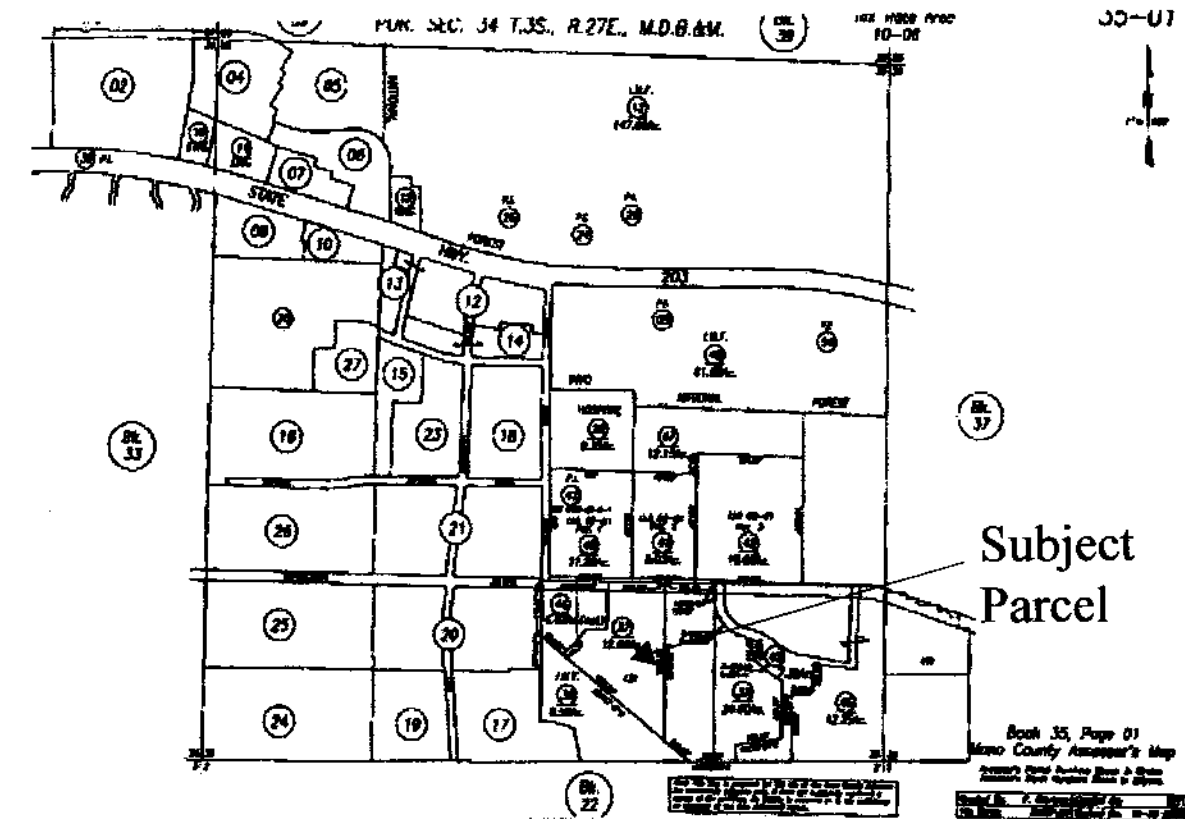
GENERATOR / ENGINE SURVEY FORM

Engine owner or company name:	Verizon Wireless - Mammoth High School
Email address:	shawn.stacey@verizonwireless.com
Contact name:	Shawn Stacey
Phone number:	866-694-2415
Mailing address:	255 Parkshore Drive, Building B, Folsom, CA 95630
Type of business/facility:	Wireless Communications
Number of diesel engines (>50hp) at this location:	1

	Example	Generator/Engine
Engine Information		
District permit number of diesel engine (if known and permitted)	PO-123456	
Street address of diesel engine	123 Main Street	1601 Meridian Blvd.
City	Sacramento	Mammoth Lakes
Zip code	95820	93546
County	Sacramento	Mono
Local air district (if known)	Sac Metro AQMD	Great Basin APCD
Engine type	backup engine	backup engine
Typical annual hours of operation	12 hr/yr	49.4 hr/yr
Engine installation date	1986 (new)	2006
Typical load (% of max bhp rating)	85%	75%
Rated brake horsepower (@ given rpm)	330bhp @ 2200 rpm	96bhp@1800 rpm
Engine manufacturer	Acme	John Deere
Model	3006D	5030HF270
Engine family		5JDXL03.0064
Generator / Engine Serial #	D-77-123	
Year of manufacture	1986	2006
Exhaust stack height from ground	13 feet	8.5 feet
Diameter of stack outlet	5 inches	3 inches
Direction of outlet (horizontal or vertical)	vertical	Vertical
End of stack (open or capped)	open - no raincap	Capped - Sheet metal hood
Control Equipment		
Diesel particulate filter (Y/N)	No	No
Diesel oxidation catalyst (Y/N)	No	No
Turbocharger (Y/N)	No	Yes
Aftercooler (Y/N)	No	Yes
Injection timing retard (Y/N)	No	No
Other (describe)		
Operation Information		
Operating schedule	1 hour per month	0.95 hours per week
Type of fuel	CARB diesel	Ultra Low Sulfur CARB Diesel #2
Fuel Tank Size	210 gal	210 gal
Fuel usage rate (gal/hr if available)	3gallons/hour	5.2 gal/hr @ 100% load
Distance from engine to nearest fence/line on property	100 ft	10 ft
Distance from engine to nearest residence	300 ft	800 ft
Distance from engine to nearest business	200 ft	415 ft
Is engine located within 1000 feet of a school?	Y	Yes
If yes, name of school?	Hoover Elementary	Mammoth High School
Distance from engine stack to school	900	292ft
School contact info & address	ABC School St (888) 222-5555	1601 Meridian Blvd. 760-934-8541
Is facility included in an existing AB 2588 inventory?	No	No
Is the facility part of a demand response plan?	No	No
Engine Emission Factors (g/bhp-hr)		
PM (default is 1 g/bhp-hr)	0.4 g/bhp-hr	0.09 g/bhp-hr
source of PM emission factor	source test (4/96)	manufacturer's data
NOx (default is 10 g/bhp-hr)	4 g/bhp-hr	4.92 g/bhp-hr
source of NOx emission factor	manufacturer's data	manufacturer's data
CO (default is 5 g/bhp-hr)	2.5 g/bhp-hr	0.74 g/bhp-hr
source of CO emission factor	EPA AP-42 data	manufacturer's data
Additional documents to be included		
Radius Map locating w/ nearest schools, business, & residence	Pulled from Title Data.	Aerial Photo
Parcel Map (if available)	County Assessor or VZW Files	County Assessor's Map
Directions and Location Map	MS Streets or Mapquest	Delorme

Verizon Wireless – “Mammoth H.S.” Site
1601 Meridian
Mammoth Lakes, CA 93546

Appendix E – Assessor’s Parcel Map



APPENDIX G

ANSEL YOUNG

From: Tom.Krohn@VerizonWireless.com
Sent: Wednesday, May 24, 2006 4:34 PM
To: ANSEL YOUNG-SITECOM
Subject: RE: Generator Specs

If both sites are to have shelters then the information below is correct

Tom Krohn
Engineer - Construction
Verizon Wireless
2785 Mitchell Drive
Bldg #9 - Cube 9108B
Walnut Creek, CA 94598
E-mail Tom.Krohn@VerizonWireless.com
Office: 925-279-6329
Mobil: 510-301-0650
Fax: 925-279-6365

The information contained in this message and any attachment may be proprietary, confidential, and privileged or subject to the work product doctrine and thus protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify me immediately by replying to this message and deleting it and all copies and backups thereof.

Thank You.



-----Original Message-----

From: ANSEL YOUNG-SITECOM [mailto:anselyoung@sitecomwireless.com]
Sent: Wednesday, May 24, 2006 12:33 PM
To: Krohn, Tom
Subject: Generator Specs

Tom,
Will we be using the following specs for the generator at the Mammoth High School and Mammoth Mtn Sites in Mammoth Lakes?

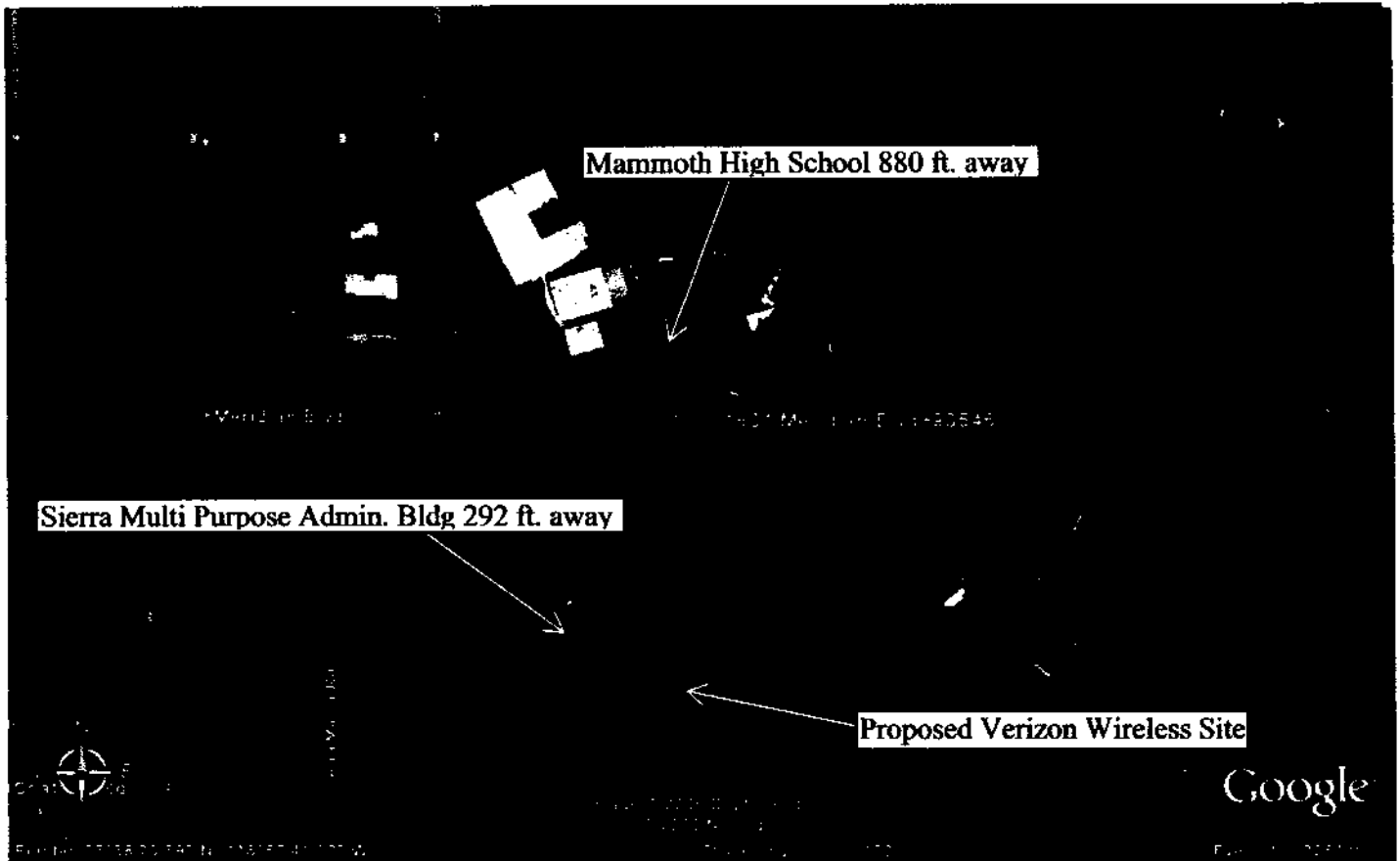
Generac SD060
60KW 60Hz
Diesel Model

Ansel Young
Sitecom, Inc.
Business Manager
Central Valley Office
4249 Parker Ave. Suite K
Bakersfield, Ca 93309

5/26/2006

Verizon Wireless – “Mammoth H. S.” Site
1601 Meridian Boulevard
Mammoth Lakes, CA 93546

Appendix H: School Proximity Map



Verizon Wireless
Mammoth H.S. Cell Site
PERMIT PROCESSING SUMMARY FOR
PERMIT N^o 1280-00-06
John Deere standby diesel engine

October 3, 2006: October 3, 2006

PROJECT DESCRIPTION:

Verizon Wireless, Mammoth H.S. Site has installed a standby emergency diesel generator.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT): Since Particulate Matter emissions are less than .15 g/bhp-hr the engine is considered equipped with Best Available Control Technology.

FEDERAL STANDARDS: NSPS There are no Federal Standard applicable to this facility.

OFFSET REQUIREMENTS: The project is located in a area classified attainment for particulate matter and for ozone attainment.

ADDITIONAL RULES APPLICABLE TO THE PROJECT:

Rule 209-A - Standards for Authority to Construct Rule 209-A.B.2. BACT required for emission sources greater than 250 pounds per day.

Rule 209-A - Standards for Authority to Construct, Rule 209-A.B.4.a., Mammoth Lakes Hospital is considered as an essential public service and is therefore exempt from the offset requirements as outlined in Rule 209-A.B.4.a.

Rule 210.A - Conditions

Rule 216 - New Source Review, NO_x - 216-A.2.a.(I) Since NO_x emissions are greater than 150 Lbs/day California Department of Fish & Game must demonstrate through Modeling that no violation of the Ambient Air Quality Standard will result because of the addition of the Standby Pumps. The Hospital is not however subject to the District's offset requirements since the Hospital is considered an essential public service.

Rule 218 - Limiting Potential to Emit. To less than 100 tons per year, or to less than De Minus levels

Rule 400 - Opacity - emit less than 20 % opacity for 3 minutes or less

Rule 401 - Fugitive Dust - Take reasonable precautions to prevent the emissions of dust beyond the property boundary.

Rule 402 - Nuisance - Particulate matter - to protect the public health - Risk Assessment.

Rule 404-A.1. -Concentration Particulate Matter 0.3 grains per dry standard foot of exhaust gas

Rule 416 - Sulfur Compounds and Nitrogen Oxides

H&S 42306 42301.6. (a) Prior to approving an application for a permit to construct or modify a source which emits hazardous air emissions, which source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or for which the application for a permit is made is fully described. The notice may be prepared whether or not the material is or would be subject to subdivision (a) of Section 25536, if the air pollution control officer determines and the administering agency concurs that hazardous air emissions of the material may result from an air release, as defined by Section 44303. The notice may be combined with any other notice on the project or permit which is required by law.

Cal. Regulation Title 17 § 93115

FINAL REGULATION ORDER AIRBORNE TOXIC CONTROL MEASURE FOR STATIONARY COMPRESSION IGNITION ENGINES

Section 93115. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines. (a) Purpose The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel fueled compression ignition (CI) engines.

CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS:

DISTRICT RECOMMENDATIONS: are listed as the permit conditions.

SUMMARY OF FACILITY TOTAL EMISSIONS

District Rule 209.C.3, governs the method used to estimate and calculate emissions. Using EPA's AP-42 emissions factors, air emissions were based upon maximum design capacity of each device. In considering the applicability of Rule 404.A, Particulate Matter emissions that can reasonably be expected to be drawn through a stack are estimated. Processes such as; boilers, space heaters, the incinerator, the Pump typically fall under this rule. Although regulated, and accounted for, emissions not reasonably capable of being drawn through a control device are judged fugitive emissions and governed under Rule 401 Fugitive Dust Rule. The District is requiring that Verizon Wireless, to have at least one water truck on site during the construction phase.

PROCESS or EQUIPMENT DESCRIPTION for PERMIT:

ANALYSIS: Standby diesel engine analysis

NAISC Code: 517212

UTM Coordinates, Zone 11, North: U/K **East:** U/K

Control measures and codes: (000) none

Emission factors: AP-42, COMPILATION OF AIR POLLUTION EMISSIONS FACTORS, VOL. I, 5th edition, Jan 1995, and CARB's offroad emissions factor for diesel exhaust.

SCC Code: 2-01-002-02 Internal Combustion Engines - reciprocating

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/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 96 hp			
POLLUTANT	LBS/HOUR	LBS/DAY	TON/YEAR
Nitrogen Dioxide (NO ₂)	1.04	25 ⁽¹⁾	.026
Sulfur Dioxide (SO ₂)	.04 ⁽²⁾	.93	.001
Particulate Matter PM ₁₀	.02	.46	.0005
Carbon Monoxide (CO)	.74	17.8	.02

- 1) Can not exceed 50 hours per year
- 2) SO_x (as SO₂) $3.67 * (\text{wt } 0.05\%S) = 0.1835 \text{ g/bhp-hr}$
- 3) Emission estimates taken from Manufacturer's data and CARB emission factors for CO & SO₂

Equivalents weights and measures for;

Liquified Petroleum Gas = Propane 90,500 Btu/gal

Propane, liquid @ 60° F = 4.24 lbs/gal

Distillate oil @ 60° F = 7.05 lbs/gal

gallons to ft³ multiply by .13368

Propane density @ 32° F = .1254 lbs/ft³

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

Distillate oil = diesel 137,000 Btu/gal

ft³ To gallons multiply by 7.481



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](mailto:gb1@greatbasinapcd.org)

August 31, 2006

Screening Risk Assessment

based on permitted emission limits for the
Verizon Wireless Standby Generator project
1601 Meridian Blvd. Mammoth Lakes, CA 93546

The project is located within 1000 feet from the nearest school and therefore subject to the public notification requirement of Cal. Health & Safety Code § 42301.6. The Screen Risk Assessment is based solely on Particulate Matter since PM is considered the only toxic air emission of concern.

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/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 96 hp			
POLLUTANT	LBS/HOUR	LBS/DAY	TON/YEAR
Nitrogen Dioxide (NO ₂)	1.04	25 ⁽¹⁾	.026
Sulfur Dioxide (SO ₂)	.04 ⁽²⁾	.93	.001
Particulate Matter PM ₁₀	.02	.46	.0005 ⁽⁴⁾
Carbon Monoxide (CO)	.74	17.8	.02

- 1) Can not exceed 50 hours per year
- 2) SO_x (as SO₂) 3.67 * (wt 0.05%S) = 0.1835 g/bhp-hr
- 3) Emission estimates taken from Manufacturer's data and CARB emission factors for CO & SO₂
- 4) Particulate emissions = .95 lbs/yr

Equivalents weights and measures for:

Liquified Petroleum Gas = Propane 90,500 Btu/gal
Propane, liquid @ 60° F = 4.24 lbs/gal
Distillate oil @ 60° F = 7.05 lbs/gal
gallons to ft³ multiply by .13368

Propane density @ 32° F = .1254 lbs/ft³
Propane Btu/lb @ 60° F = 21,700 Btu/lb
Distillate oil = diesel 137,000 Btu/gal
ft³ To gallons multiply by 7.481

Since the engine meets Best Available Control Technology for Toxic (T-BACT) requirements (emission level of 0.15 g/hp-hr or less), the maximum acceptable cancer risk is estimated a 10 in a million. (The emission level for this engine is 0.09 g/hp-hr) Results from the health risk screening analysis shows that for 50 hours of operation per year, excluding periods when operation is required due to emergency conditions, the risk to maximally exposed nearest receptor is 8.69×10^{-3} in a million. The analysis was performed at a PM_{10} emission rate of .952 lbs/yr. In accordance with the District's Risk Policy (attached), this risk level is considered acceptable. The Screen 3 air dispersion computer model was used to estimate annual average ambient air concentration. Stack and building parameter for the analysis were based on information provided by the applicant. Estimates of residential worst case scenario assumes potential exposure to annual average TAC concentrations occurring 24 hours per day, 360 days per year, for a 70-year life time. Risk estimate for offsite workers assume potential exposure occurs 8 hours per day, 245 days per year, for 40 years. For students, the assumptions include higher breathing rates for children, and potential exposure occur 10 hours per day, 180 days per year, over 9-year period. However, since the engine is not allowed to operate between 7:30 am and 3:30 pm on days when the school is in session, potential exposure to students is considered negligible.

The applicant supplied a copy of the Manufactures' ISO 8178-D2 test cycle data that was supplied to CARB. The CARB staff has determined that the John Deere Model 3.0L, EPA N^o 4JDLX03.0064, rated at 96 hp, is in compliance with the Particulate Matter emission requirements of (0.15 g/bhp-hr) from Cal. Code of Regulation Title 17, Section 93115(e)(2)(A)3., (Table 1: Summary of Emission Standards and Operating Requirement for New Stationary Emergency Stand Diesel Fueled Compression Ignition Engines > 50 BHP). Therefore, the above John Deere engine model qualifies for use in California for standby generator set application operating at 50 hours per year for maintenance and testing purposes.

OEHHA/ARB APPROVED CHRONIC REFERENCE EXPOSURE LEVELS
(table 3) Table last updated: April 25, 2005

	Chemical Abstract Number	Chronic Inhalation Reference Exposure Level ($\mu\text{g}/\text{m}^3$)
Particulate Emission from Diesel-Fuel Engines ^(TAC)	9901	5.0E+00 ^(TAC)

Risk Assessment Calculations, particulate matter emission rate
Calculation N^o 1.

$$Diesel PM_{10 \text{ grams/sec}} = \frac{.019}{diesel PM_{lbs/hr}} \times \frac{453.59 \text{ g}}{1 \text{ lb}} \times \frac{sec/hr}{3600} = 2.4 \times 10^{-3} \text{ g/sec}$$

Calculation № 2. WORST CASE SCENARIO; assume the receptor is living at the fence line approximately 14 meters near the exhaust stack Risk Assessment Calculation for Diesel Particulate Matter is based on modeling utilizing projected worst case site emission estimates. (maximum concentration at receptor site based on EPA's Screen 3 dispersion analysis). No correction factors were utilized. Engine runs 8670 hr/yr for a maximum of 70 years.

$$\frac{n/a}{\text{Corr}_{\text{factor}_{\text{year}}}} \times \frac{n/a}{Q} \times \frac{7.99 \text{ ug/m}^3}{x/q} \times \frac{5.0}{U} = \frac{39.99}{\text{additional cancer burden}_{\text{per million population}}}$$

Where:

~~emission rate in lbs/day Q = N/A~~ The emission rate is considered in the dispersion model.

The project is expected to last 70 years of the 70 year risk assessment base period.

x/q dispersion factor(concentration) = 7.99 (µg/m³) at the fence line or 14 meters from the stack

Diesel PM₁₀ risk factor, U = 5.0E+00

additional respiratory cancer risk = 39.95 per 10⁶ population

Calculation № 3. AS PERMITTED SCENARIO; assume school students are located 89 meters feet from the exhaust stack.

Risk Assessment Calculation for Diesel Particulate Matter is based on modeling utilizing plausible project emission estimates. (maximum concentration at receptor site based on EPA's Screen 3 dispersion analysis).

Engine runs 50 hr/yr for 9 years of a 70 yr/span. However, the engine is prohibited from operating while school is in session. Consequently, the student would not be exposed to even this level of emissions.

$$\frac{.129}{\text{Corr}_{\text{factor}_{\text{year}}}} \times \frac{.006}{\text{Corr}_{\text{factor}_{\text{hourly limit}}}} \times \frac{n/a}{Q} \times \frac{2.246}{x/q} \times \frac{5.0}{U} = \frac{8.69 \times 10^{-3}}{\text{additional cancer burden}_{\text{per million population}}}$$

Where:

~~emission rate in lbs/day Q = N/A~~ The emission rate is considered in the dispersion model.

The project is expected to last 9 years of the 70 year risk assessment base period. = .129 Correction factor

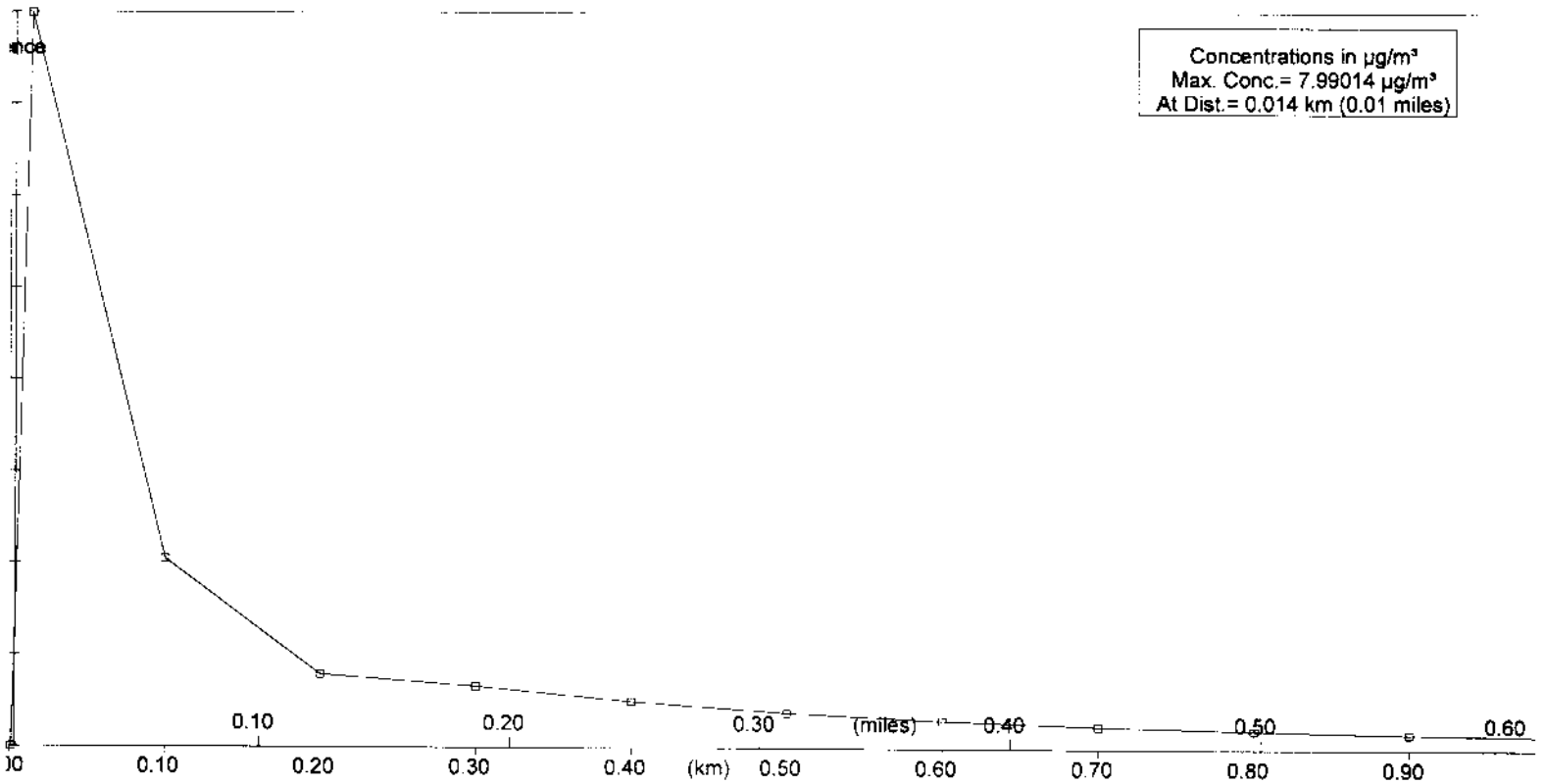
The engine is allowed to operate 50 hours per year of 8670 hours per year base period. = .006 Correction factor

x/q dispersion factor(concentration) = 2.246 (µg/m³) located 89 meters from the stack

Diesel PM₁₀ risk factor, U = 5.0E+00

Additional respiratory cancer risk = 8.69x10⁻³ per million population

Verison Wireless Mammoth High School Cellular Site



*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Verizon Wireless Mammoth High School Cellular Site

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.240000E-02
STACK HEIGHT (M) = 4.5720
STK INSIDE DIAM (M) = 0.1219
STK EXIT VELOCITY (M/S) = 21.5497
STK GAS EXIT TEMP (K) = 797.0389
AMBIENT AIR TEMP (K) = 293.1500
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = URBAN
BUILDING HEIGHT (M) = 3.0480
MIN HORIZ BLDG DIM (M) = 3.6576
MAX HORIZ BLDG DIM (M) = 6.0960

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BOUY. FLUX = 0.496 M**4/S**3; MOM. FLUX = 0.635 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	0	0.0	0.0	0.0	0.00	0.00	0.00	NA
100.	2.054	4	1.0	1.0	320.0	14.36	15.69	13.79	SS
200.	0.7936	4	1.0	1.0	320.0	14.36	30.79	27.20	SS
300.	0.6665	6	1.0	1.0	10000.0	22.05	31.18	19.93	SS
400.	0.5055	6	1.0	1.0	10000.0	22.05	40.85	25.30	SS
500.	0.3857	6	1.0	1.0	10000.0	22.05	50.21	30.24	SS
600.	0.3029	6	1.0	1.0	10000.0	22.05	59.27	34.82	SS
700.	0.2448	6	1.0	1.0	10000.0	22.05	68.06	39.11	SS
800.	0.2029	6	1.0	1.0	10000.0	22.05	76.59	43.15	SS
900.	0.1716	6	1.0	1.0	10000.0	22.05	84.89	46.97	SS
1000.	0.1477	6	1.0	1.0	10000.0	22.05	92.97	50.60	SS
1100.	0.1290	6	1.0	1.0	10000.0	22.05	100.83	54.06	SS
1200.	0.1140	6	1.0	1.0	10000.0	22.05	108.50	57.37	SS
1300.	0.1018	6	1.0	1.0	10000.0	22.05	115.99	60.55	SS
1400.	0.9172E-01	6	1.0	1.0	10000.0	22.05	123.30	63.61	SS
1500.	0.8328E-01	6	1.0	1.0	10000.0	22.05	130.44	66.56	SS
1600.	0.7614E-01	6	1.0	1.0	10000.0	22.05	137.43	69.42	SS
1700.	0.7001E-01	6	1.0	1.0	10000.0	22.05	144.27	72.18	SS
1800.	0.6472E-01	6	1.0	1.0	10000.0	22.05	150.97	74.86	SS
1900.	0.6011E-01	6	1.0	1.0	10000.0	22.05	157.54	77.47	SS
2000.	0.5606E-01	6	1.0	1.0	10000.0	22.05	163.98	80.00	SS
2100.	0.5249E-01	6	1.0	1.0	10000.0	22.05	170.30	82.47	SS
2200.	0.4930E-01	6	1.0	1.0	10000.0	22.05	176.50	84.87	SS
2300.	0.4646E-01	6	1.0	1.0	10000.0	22.05	182.59	87.22	SS
2400.	0.4390E-01	6	1.0	1.0	10000.0	22.05	188.57	89.52	SS

Verizon wireless Mammoth Hi School PM model run 3.OUT

2500.	0.4159E-01	6	1.0	1.0	10000.0	22.05	194.45	91.77	SS
2600.	0.3950E-01	6	1.0	1.0	10000.0	22.05	200.24	93.96	SS
2700.	0.3759E-01	6	1.0	1.0	10000.0	22.05	205.93	96.12	SS
2800.	0.3585E-01	6	1.0	1.0	10000.0	22.05	211.54	98.23	SS
2900.	0.3425E-01	6	1.0	1.0	10000.0	22.05	217.05	100.30	SS
3000.	0.3278E-01	6	1.0	1.0	10000.0	22.05	222.49	102.34	SS
3500.	0.2692E-01	6	1.0	1.0	10000.0	22.05	248.52	112.00	SS
4000.	0.2277E-01	6	1.0	1.0	10000.0	22.05	272.88	120.95	SS
4500.	0.1968E-01	6	1.0	1.0	10000.0	22.05	295.82	129.32	SS
5000.	0.1731E-01	6	1.0	1.0	10000.0	22.05	317.54	137.20	SS
5500.	0.1543E-01	6	1.0	1.0	10000.0	22.05	338.21	144.67	SS
6000.	0.1391E-01	6	1.0	1.0	10000.0	22.05	357.94	151.79	SS
6500.	0.1266E-01	6	1.0	1.0	10000.0	22.05	376.84	158.60	SS
7000.	0.1161E-01	6	1.0	1.0	10000.0	22.05	395.00	165.13	SS
7500.	0.1071E-01	6	1.0	1.0	10000.0	22.05	412.50	171.43	SS
8000.	0.9946E-02	6	1.0	1.0	10000.0	22.05	429.40	177.50	SS
8500.	0.9279E-02	6	1.0	1.0	10000.0	22.05	445.74	183.38	SS
9000.	0.8694E-02	6	1.0	1.0	10000.0	22.05	461.59	189.08	SS
9500.	0.8177E-02	6	1.0	1.0	10000.0	22.05	476.98	194.62	SS
10000.	0.7718E-02	6	1.0	1.0	10000.0	22.05	491.93	200.00	SS
15000.	0.4929E-02	6	1.0	1.0	10000.0	22.05	623.64	247.54	SS
20000.	0.3614E-02	6	1.0	1.0	10000.0	22.05	733.33	287.37	SS
25000.	0.2852E-02	6	1.0	1.0	10000.0	22.05	829.16	322.33	SS
30000.	0.2354E-02	6	1.0	1.0	10000.0	22.05	915.26	353.86	SS
40000.	0.1928E-02	4	1.0	1.0	320.0	14.36	1552.23	1553.16	SS
50000.	0.1714E-02	4	1.0	1.0	320.0	14.36	1745.74	1750.00	SS

Cancel

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
 14. 7.990 1 2.0 2.0 640.0 5.21 4.79 3.63 SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 *** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

Cancel
School
Business
Residential

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
3.	0.000	0	0.0	0.0	0.0	0.00	0.00	0.00	NA
89.	2.246	4	1.0	1.0	320.0	14.36	13.99	12.30	SS
126.	1.583	4	1.0	1.0	320.0	14.36	19.75	17.38	SS
244.	0.7467	6	1.0	1.0	10000.0	22.05	25.62	16.70	SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 *** REGULATORY (Default) ***
 PERFORMING CAVITY CALCULATIONS
 WITH ORIGINAL SCREEN CAVITY MODEL
 (BRODE, 1988)

Verizon Wireless Mammoth Hi School PM model run 3.OUT

*** CAVITY CALCULATION - 1 ***	*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = 0.000	CONC (UG/M**3) = 0.000
CRIT WS @10M (M/S) = 99.99	CRIT WS @10M (M/S) = 99.99
CRIT WS @ HS (M/S) = 99.99	CRIT WS @ HS (M/S) = 99.99
DILUTION WS (M/S) = 99.99	DILUTION WS (M/S) = 99.99
CAVITY HT (M) = 4.07	CAVITY HT (M) = 3.41
CAVITY LENGTH (M) = 7.09	CAVITY LENGTH (M) = 4.92
ALONGWIND DIM (M) = 3.66	ALONGWIND DIM (M) = 6.10

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

 END OF CAVITY CALCULATIONS

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	7.990	14.	0.



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

Toxic Risk Assessment Policy

1. Sources that emit Toxic Air Contaminants, as listed by ARB or EPA must apply for a permit.
2. A screening risk assessment will be performed by the District. If the lifetime carcinogenic risk to the maximum exposed individual is less than or equal to one-in-one-million (1×10^{-6}), a permit will be granted. If the risk is greater than 1×10^{-6} the proponent will be required to do a formal risk assessment and an Environmental Impact Report.
3. Proposed sources which result in a carcinogenic risk of greater than 10×10^{-6} would be denied permits. Proposed sources, which result in a carcinogenic risk between 1×10^{-6} and 10×10^{-6} , may be issued a permit if appropriate mitigations are incorporated into the project.

(Adopted 12/9/87)