

ENGINEERING EVALUATION and STATEMENT OF BASIS
City of Mountain View
SITE # A2740
APPLICATION # 8445

BACKGROUND

The City of Mountain View owns a complex located in Mountain View, CA known as Shoreline At Mountain View. Shoreline is a recreational and wildlife area constructed over approximately 600 acres of closed landfill sites with ~13 million tons of refuse in place. This facility is required to have a Title V/Major Facility Review (MFR) permit because it is a designated facility. The initial MFR permit was issued on July 28, 2003 and was last revised on September 20, 2003. Permitted equipment currently includes:

- S-1 Closed Landfills with Gas Collection Systems
- S-11 Diesel Engine for Emergency Standby Generator
- S-12 Microturbine (on-site, but not installed or operating yet)
- S-13 Microturbine (on-site, but not installed or operating yet)
- A-3 Landfill Gas Flare
- A-4 Landfill Gas Flare
- A-5 Landfill Gas Flare

The City of Mountain View requested an Authority to Construct and Permit to Operate for a new emergency standby generator that will be used to provide power to wastewater pumps in the event of a power failure. This generator will be located at 2960 North Shoreline Boulevard. Since this address is on contiguous property with the City of Mountain View's Site # A2740 (2600 Shoreline Boulevard), the new generator is considered to be part of the same facility per BAAQMD Regulation 1-215.

The proposed generator will be powered by a diesel oil fired internal combustion engine, as described below:

- S-14 Diesel Engine for Emergency Standby Generator; Kohler, Generator Model # 275REOZV, Engine Model # D300 12.1A65, 469 BHP, 740 in³ displacement, 19.8 gallons/hour of low sulfur diesel oil.**

EMISSIONS SUMMARY

Emission Factors:

The emission factors for the S-14 Diesel Engine were determined using test data that the vendor supplied in order to obtain EPA certification for this engine family. The vendor used the ISO 8178 test method and the D-2 cycle weighting factors. The test results are summarized in Table 1.

Table 1. EPA Certified Emission Factors for S-14 Diesel Engine

	Maximum Hourly *		Weighted Average
NO _x	1815.5	g/hr	4.30 g/hp-hr
CO	150.3	g/hr	0.43 g/hp-hr
POC	75.7	g/hr	0.31 g/hp-hr
PM ₁₀	19.0	g/hr	0.07 g/hp-hr

* For each pollutant, the maximum hourly emission rate occurs at the maximum load (469 bhp).

The emission factor for SO₂ is from Chapter 3, Table 3.4-1 of the EPA Document AP-42, Compilation of Air Pollutant Emission Factors. This engine will be required to use only low sulfur fuel oil with a sulfur content of no more than 0.05% by weight (see Condition # 21195, Part 1 and the Toxics NSR discussion below for additional information about this diesel oil sulfur content limit).

$$\begin{aligned} \text{SO}_2 &= 8.09\text{E-}3 \text{ (\% S in fuel oil) lb/hp-hr} = 8.09\text{E-}3 * (0.05\% \text{ S}) * (453.6 \text{ g/lb}) = 0.1835 \text{ g/bhp-hr} \\ &= (0.1835 \text{ g/bhp-hr}) * (469 \text{ bhp}) = 86.1 \text{ g/hr} \end{aligned}$$

Maximum Daily Emissions:

Maximum daily emissions are based on S-14 operating for a full 24-hour day at the maximum horsepower rating and maximum hourly emission rates discussed above. Since this engine powers an emergency generator, the operating times will be intermittent and unexpected and could potentially last for 24 hours in a day.

Table 2. Maximum Daily Emissions from S-14

NO _x	=	(1815.5 g/hr)*(24 hrs/day)/(453.6 g/lb)	=	96.06 lbs/day
CO	=	(150.3 g/hr)*(24 hrs/day)/(453.6 g/lb)	=	7.95 lbs/day
POC	=	(75.7 g/hr)*(24 hrs/day)/(453.6 g/lb)	=	4.00 lbs/day
PM ₁₀	=	(19.0 g/hr)*(24 hrs/day)/(453.6 g/lb)	=	1.01 lbs/day
SO ₂	=	(86.1 g/hr)*(24 hrs/day)/(453.6 g/lb)	=	4.56 lbs/day

Annual Emissions:

Maximum annual emissions (for non-emergency operations) are based on S-14 operating for a maximum of 100 hours per year (see Condition # 21195, Part 2 and the Toxics NSR discussion below for additional information about this operating time limit) at the maximum horsepower rating and maximum hourly emission rates. Operating time during emergencies is unlimited, but annual emissions are not calculated for emergency operation because these emissions are non-routine and unpredictable.

Table 3. Maximum Annual Emissions from S-14

NO _x	=	(1815.5 g/hr)*(100 hrs/yr)/(453.6 g/lb)	=	400.2 lb/yr	=	0.200 TPY
CO	=	(150.3 g/hr)*(100 hrs/yr)/(453.6 g/lb)	=	33.1 lb/yr	=	0.017 TPY
POC	=	(75.7 g/hr)*(100 hrs/yr)/(453.6 g/lb)	=	16.7 lb/yr	=	0.008 TPY
PM ₁₀	=	(19.0 g/hr)*(100 hrs/yr)/(453.6 g/lb)	=	4.2 lb/yr	=	0.002 TPY
SO ₂	=	(86.1 g/hr)*(100 hrs/yr)/(453.6 g/lb)	=	19.0 lb/yr	=	0.009 TPY

Plant Cumulative Increase

The facility-wide inventory of cumulative emission increases (since 4/5/91) from all new and modified sources at Site # A2740 is summarized in the table below. As described in more detail in the Offsets discussion below, offsets are required for NO_x and POC emission increases. The required emission reduction credits (ERC) will be provided from the District's Small Facility Banking Account (SFBA).

Table 4. Summary of Plant-Wide Cumulative Emission Increase Changes for Application # 8445

Pollutant	Existing Balance (tons/year)	Application Increases (tons/year)	ERC from SFBA (tons/year)	New Total Cumulative Emission Increases (tons/year)
NO _x	0.000	0.200	0.200	0.000
CO	25.134	0.017		25.151
POC	0.000	0.008	0.008	0.000
PM ₁₀	2.406	0.002		2.408
SO ₂	0.460	0.009		0.469
NPOC	0.000	0.000		0.000

STATEMENT OF COMPLIANCE and MONITORING ASSESSMENT

Regulation 2, Rule 1, General Permit Requirements:

The engineering review for this project requires only the application of standard permit conditions and standard emissions factors as described in Permit Handbook Chapter 2.3 Internal Combustion Engines and the District's BACT/TBACT Workbook. Therefore, this project is considered to be ministerial pursuant to Regulation 2-1-427. This project satisfies all of the ministerial permit application approval criteria in Regulation 2-1-428. Therefore, approval of this application is considered to be a mandatory ministerial duty, and no CEQA review is required per Regulation 2-1-311.

The project is over 1000 feet from the nearest school. Therefore, this project is not subject to the public notification requirements of Regulation 2-1-412.

Regulation 2, Rule 2, New Source Review:

This application involves the installation of a new source, which is subject to the new source review (NSR) requirements of Regulation 2, Rule 2. Since the total emissions from this facility are less than 100 tons per year for each regulated air pollutant, this project is not subject to the PM₁₀ and SO₂ Offsets Requirements (Regulation 2-2-303) or to any of the PSD requirements (Regulation 2-2-304 through 2-2-309). The Best Available Control Technology (BACT) requirements of Regulation 2-2-301 and the POC and NO_x Offset requirements of Regulation 2-2-302 are discussed below.

Best Available Control Technology:

In accordance with Regulation 2-2-301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NO_x, CO, SO₂ or PM₁₀. Based on the emission calculations above, the S-14 Diesel Engine is subject to BACT for the following pollutant: NO_x. BACT is not required CO, POC, SO₂, or PM₁₀ emissions, because the maximum emission rate for each of these pollutants is less than 10 pounds per day.

The BACT requirements for the S-14 Diesel Engine are described in the District's BACT/TBACT Workbook, Document # 96.1.2 for compression ignition IC engines with a rated capacity of 175 horsepower or higher, which is shown below:

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Best Available Control Technology (BACT) Guideline**

Source Category

Source:	IC Engine - Compression Ignition	Revision:	5
		Document #:	96.1.2
Class:	> or = 175 horsepower output rating	Date:	01/11/02

Determination

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice 3. TBACT	TYPICAL TECHNOLOGY
POC	1. 0.30 g/bhp-hr [62 ppmvd @ 15% O ₂] a,b 2. 1.5 g/bhp-hr [309 ppmvd @ 15% O ₂] b,c	1. Catalytic Oxidation and CARB or EPA (or equivalent) low-total hydrocarbon emitting certified engine a,b 2. CARB or EPA (or equivalent) low-total hydrocarbon emitting certified engine b,c
NO _x	1. 1.5 g/bhp-hr [107 ppmvd @ 15% O ₂] a,b 2. 6.9 g/bhp-hr [490 ppmvd @ 15% O ₂] a,b,c 3. 6.9 g/bhp-hr [490 ppmvd @ 15 % O ₂]	1. Selective Catalytic Reduction (SCR) + Timing Retard + Turbocharger w/ Intercooler a,b 2. Timing Retard < 4° + Turbocharger w/ Intercooler a,b,c 3. Timing Retard < 4° + Turbocharger w/ Intercooler
SO ₂	1. n/d 2. fuel oil < 0.05% sulfur a,b	1. n/d 2. Fuel Selection a,b
CO	1. n/s 2. 2.75 g/bhp-hr [319 ppmvd @ 15% O ₂] b,c	1. Catalytic Oxidation b 2. CARB or EPA (or equivalent) low-CO emitting certified engine b,c
PM ₁₀	1. n/d 2. If practical, gas-fueled engine or electric motor. If not, "California Diesel Fuel" (fuel oil with <0.05% by weight sulfur and <20% by volume aromatic hydrocarbons) b 3. 0.1 grams/bhp-hr	1. Catalyst Guard Bed a,b 2. Fuel Selection b,d 3. CARB or EPA (or equivalent) low-particulate matter emitting certified engine, or particulate filter
NPOC	1. n/a 2. n/a	1. n/a 2. n/a

References

- a. CARB/CAPCOA Clearinghouse
- b. BAAQMD NOTE: IC Engine BACT and TBACT is a low emitting, spark-ignited, gas-fueled engine with lean burn combustion or rich burn with non-selective catalytic reduction, or electric motor. A diesel engine will be permitted only if a gas-fueled engine, or electric motor, is not practical (e.g., a remote location without natural gas availability or electric power, or only a diesel engine will meet the portability and/or power/torque/rpm requirements of the application under review, or the engine is used exclusively for emergency use during involuntary loss of power).
- c. Timing retard, etc. controls alone may be acceptable only in very limited situations for temporary sources.

As described in Reference b, the BACT 1 (technologically feasible / cost effective) requirement to use a low emitting, spark-ignited, gas-fueled engine does not apply for an engine that is used exclusively for emergencies during involuntary loss of power. Since the S-14 Diesel Engine will be used to power an emergency standby generator that will only be used in the event of power loss, S-14 is not required to meet BACT 1.

Hence, the S-14 Diesel Engine is required to meet the BACT 2 (achieved in practice) limit for NO_x. As shown in Table 5 below, the certified emission factors for S-14 will comply with the BACT 2 emission limits for all pollutants, even though compliance is only required for NO_x.

Table 5. Comparison of S-14 Emission Factors to BACT Requirements

Pollutant	S-14 Emission Factors (g/hp-hr)	BACT 2 Emission Limits (g/hp-hr)	Have the limits been met?
NO _x	4.30	6.9	YES
CO	0.43	2.75	YES
POC	0.31	1.5	YES
PM ₁₀	0.07	0.1	YES
SO ₂	< 0.05% S	< 0.05% S	YES

Since EPA certification data was used to establish the emission rates for S-14, the BACT 2 NO_x emission limit and other pollutant limits have not been incorporated into the permit conditions. The S-14 Diesel Engine is assumed to comply with these limits through the design standards demonstrated during the certification testing. Therefore, no on-going demonstration of compliance with these limits is necessary.

Offsets:

In accordance with Regulation 2-1-302, offsets are required for POC or NO_x emission increases from new or modified sources, if the total emissions from the facility (after the project) will be greater than or equal to 15 tons/year of POC or NO_x. If the total facility emissions are between 15 and 50 tons/year, emission reduction credits (ERCs) must be supplied for all POC and/or NO_x emission increases at a 1.0 to 1.0 ratio, and the facility may potentially qualify to use the District's small facility banking account (SFBA) to provide the required ERCs. Facilities emitting more than 50 tons/year of NO_x or POC do not qualify to use the SFBA and must provide ERCs at a 1.15 to 1.0 ratio.

From the District's inventory, the total emissions from the landfill and flares at Plant # 2740 are 45.95 tons/year of POC and 19.18 tons/year of NO_x. Since the landfill is closed and gas generation rates are declining, these emissions are not expected to increase in the future. Maximum potential emission rates for the S-11 Diesel Engine for Standby Emergency Generator

are 1.76 tons/year of NO_x and 0.14 tons/year of POC. From Applications # 6697, the S-12 and S-13 Microturbines are permitted to emit a maximum of 3.65 tons/year of NO_x and 0.65 tons/year of POC. Maximum permitted emissions for S-14 will be 0.20 tons/year of NO_x and 0.01 tons/year of POC. Maximum potential emissions from all permitted equipment (after this project) will be 46.95 tons/year of POC and 24.79 tons/year of NO_x. Since maximum potential emissions for NO_x and POC will each exceed 15 tons/year, POC and NO_x offsets are required. Since emissions do not exceed 50 tons/year, ERCs should be supplied at a 1.0 to 1.0 ratio. The total ERCs required are 0.200 tons/year of NO_x and 0.008 tons/year of POC.

This facility satisfies the SFBA criteria in Regulation 2-4-414, because NO_x and POC emissions will not exceed 50 tons/year and this facility holds no banked ERCs. Since the SFBA has sufficient ERCs available, the required NO_x and POC offsets for this application will be supplied from the SFBA.

New Source Review for Toxic Air Contaminants:

The District requires that each application for new or modified sources be evaluated for compliance with the District's Risk Management Policy. This application involves a new source (S-14) that will emit a toxic air contaminant (diesel particulate matter); therefore, this application is subject to the District's Risk Management Policy (RMP).

The S-14 Diesel Engine will emit 4.2 pounds/year of diesel PM, which exceeds the risk screen trigger level of 0.64 pounds/year of diesel PM. Therefore, a health risk screening analysis is required for this project.

The District's Toxic Evaluation Section conducted the health risk screening analysis for the proposed diesel engine (S-14) based on an earlier emission estimate of 10.33 pounds/year of diesel PM. The ISCST3 air dispersion computer model was used to estimate annual average ambient air concentrations. The model was run with Moffett Field meteorological data. Stack and building parameters for the analysis were based on information provided by the applicant. Estimates of residential risk assumed continuous 70-year exposure to annual average TAC concentrations. The health risk screening analysis indicated that the maximum cancer risk due to S-14 will be 1.22 in a million for 100 hours of operation per year (excluding periods when operation is required due to emergency conditions) and an emission rate of 10.33 pounds/year of diesel PM. For the refined emission estimate of 4.20 pounds/year of diesel PM, the maximum cancer risk is estimated to be 0.5 in a million.

For the District's RMP, the total project emissions include the proposed emissions from all new/modified sources in this application plus any emission increases from related applications. Related applications include any applications approved within two years of the complete date for the current application, unless the District determines that the current and previous applications are not related projects. For this project, applications within the last two years include Application # 2228, # 4920, # 6697, and # 7430. Of these applications, Application # 6697 is the only application with any toxic air contaminant emission increases. Application # 6697 was for two new landfill gas fired microturbines (S-12 and S-13) that will provide power to sewage, leachate, and irrigation pumping equipment. Although the microturbines are landfill gas fired and have the secondary function of abating landfill gas emissions from the landfill, the primary purpose of these microturbines is to provide power to pumping equipment. The proposed S-14 Diesel Engine will also provide power to pumping equipment (in the event of an emergency); therefore, these projects are related.

From Application # 6697, landfill gas fired microturbines will emit several toxic air contaminants including acrylonitrile, vinyl chloride, benzene, perchloroethylene, trichloroethylene, and several other chlorinated organic compounds. The total emissions from the two microturbines were less than the District's risk screen trigger level for each compound. Therefore, a risk screening analysis was not required for Application # 6697. Since total emissions are less than the risk

screen trigger levels, the health impacts from this microturbine project are presumed to be a cancer risk of less than 1 in a million and a hazard index of less than 1.0.

In accordance with the District's Risk Management Policy, a cancer risk level between 1 and 10 in a million is considered acceptable, provided that all sources in the project will comply with the best available control technology requirements for toxic emissions (TBACT). The total health impacts from the S-14 Diesel Engine and the S-12 and S-13 Microturbines will be a cancer risk of less than 2 in a million (0.5 from S-14 and <1 from S-12 and S-13) and a hazard index of less than 1 (<1.0 from S-12 and S-13). Therefore, this project will comply with the District's Risk Management Policy, if S-14, S-12, and S-13 meet TBACT requirements.

From the District's Risk Management Policy for Diesel Engines, TBACT is a low emitting, spark-ignited, gas-fueled engine unless an electric motor or gas-fueled engine is not practical. In this case, S-14 will be used to power an emergency standby generator. Electric motors and gas-fueled engines are not feasible for the purpose of providing emergency power. Therefore, use of a diesel-fueled engine is allowed. TBACT for diesel-fueled engines is a CARB or EPA certified engine with a certified PM emission rate of no more than 0.1 grams per brake-horsepower-hour using low sulfur diesel oil with no more than 0.05% sulfur by weight. As shown in Table 5, the S-14 Diesel Engine complies with the TBACT emission limits of 0.1 g/bhp-hr for diesel PM and <0.05% sulfur in the fuel.

The District's BACT/TBACT Workbook contains no specific organic compound emission limits that have been determined to be BACT or TBACT for landfill gas fired microturbines. However, enclosed landfill gas flares operating at combustion temperatures of at least 1400 °F are considered to be TBACT for controlling collected landfill gas. The toxic air contaminant emission rates (pounds/scf of landfill gas) from the S-12 and S-13 Microturbines will be no greater than the emission rates from a landfill gas flare operating at 1400 °F. Therefore, these microturbines are considered to be equivalent control technology to enclosed flares and are considered to be TBACT for controlling landfill gas emissions.

As discussed above, the S-14 Diesel Engine and S-12 and S-13 Microturbines meet TBACT requirements. The health impacts from the total project will not exceed a cancer index of 10 in a million or a hazard index of 1.0. Therefore, this project will comply with the District's Risk Management Policy.

Regulation 2, Rule 6, Major Facility Review:

This facility is required to have a Title V/Major Facility Review (MFR) permit, because it is a designated facility. The initial MFR permit was issued on July 28, 2003 and was last revised on September 20, 2003. This proposed installation of a new source will require a revision of the MFR permit. The new S-14 Diesel Engine has low emissions and does not trigger any of the significant revision criteria identified in Regulation 2-6-226.1 through 226.7. Therefore, the addition of this source to the MFR permit requires a minor revision of the MFR permit.

The changes to the MFR permit for Site # A2740 are summarized below. A strike-out/underline version of this proposed MFR permit revision is attached.

- Add S-14 to Table II-A in Section II.
- Add Table IV-D for S-14 in Section IV.
- Add Condition # 21195 for S-14 in Section VI.
- Add Table VII-D for S-14 in Section VII.
- Delete future effective dates that have passed from Tables IV-A, IV-C, VII-A, and VII-C.
- Update Revision History in Section X.

Other Applicable District Requirements:

The S-14 Diesel Engine is subject to three District rules:

- Regulation 6 Particulate Matter and Visible Emissions;
- Regulation 9, Rule 1 Sulfur Dioxide; and
- Regulation 9, Rule 8 Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines.

For Regulation 6, Sections 304, 306, 311, 320, and 330 do not apply to engines. Internal combustion engines that are used to provide standby power are also exempt from Regulation 6-301 and 6-302. Therefore, the S-14 Diesel Engine is subject to Regulation 6-303, 6-305, and 6-310.

Regulation 6-303 limits the opacity of the particulate emissions to no darker than No. 2 on the Ringelmann Chart for periods aggregating more than 3 minutes in any hour. Regulation 6-305 prohibits the emission of visible particles that fall on property other than the Permit Holder. Properly operated diesel engines are expected to comply with these limits. Since this engine is used to provide power during a power failure, it will normally be operated for only a few hours per month for reliability testing. Emergency operation will be infrequent and mainly unpredictable. Total operating time for emergencies and reliability testing is not expected to exceed 500 hours/year. The maximum potential emission rate for 500 hours/year of operation is 0.01 tons/year of PM₁₀. Diesel engines that are complying with TBACT requirements will easily meet a Ringelmann No. 2 limit. Since the likelihood of non-compliance is very low, maximum potential emissions are very low (0.01 tons/year of PM₁₀), and actual emissions are expected to be insignificant (0.002 tons/year of PM₁₀), periodic monitoring for the Ringelmann limit would not be appropriate for this engine.

Regulation 6-310 limits particulate emissions to 0.15 grains/dscf of exhaust. Using the maximum emission rate 19.03 g/hr, diesel oil data, a typical diesel oil flue gas production rate of 9190 dscf/MM BTU at 0% oxygen, and typical flue gas oxygen content of 15% O₂, the particulate grain loading in the engine exhaust is expected to be less than 0.01 grains/dscf at 15% O₂, which complies with Regulation 6-310.

$$\begin{aligned} & (19.03 \text{ grams PM}_{10}/\text{hour}) / (453.6 \text{ grams/pound}) * (7000 \text{ grains/pound}) / (19.8 \text{ gallons/hour}) / \\ & (7.1 \text{ pounds/gallon}) / (0.0193 \text{ MM BTU/pound}) / (9190 \text{ dscf/MM BTU}) * (20.9-15) / (20.9-0) \\ & = 0.003 \text{ grains/dscf flue gas, 15\% O}_2 \end{aligned}$$

The compliance margin with the Regulation 6-310 limit is more than 40:1. Periodic monitoring for compliance this limit would not be appropriate for S-14, because particulate emissions are very low and source testing for PM emissions from standby engines is difficult and costly.

Maximum potential sulfur dioxide emissions from the S-14 Diesel Engine will be less than 0.05 tons per year for all operation (assuming 500 hours/year total operation during both emergency and non-emergency conditions). Actual emissions will be less than 0.01 tons/year of SO₂. Regulation 9-1-301 limits ground level sulfur dioxide concentrations to: ≤ 0.5 ppm for 3 minutes, ≤ 0.25 ppm for 60 minutes, and ≤ 0.05 ppm for 24 hours. Regulation 9-1-304 limits the sulfur content of liquid fuels to 0.5% by weight. The S-14 Diesel Engine will be required to use low sulfur diesel fuel (<0.05% by weight) to comply with TBACT requirements. Therefore, S-14 will comply with Regulation 9-1-304 with a compliance margin of 10:1. Sources complying with the Regulation 9-1-304 limit are expected to comply with the ground level sulfur dioxide concentration limits in Regulation 9-1-301. The Permit Holder will demonstrate compliance with the requirement to use low sulfur diesel fuel by maintaining records of the vendor certified fuel oil content for each fuel oil delivery per Condition # 21195, Part 4d. These records will also show compliance with the Regulation 9-1-304 limit. Since the compliance margin with 9-1-301 and 9-1-304 will be high and sulfur dioxide emissions are very low, monitoring for ground level SO₂

concentrations in addition to the proposed record keeping requirements would not be appropriate.

Regulations 9-8-110 exempts IC engines that are powering emergency standby generators from Sections 301, 302, and 502. The only applicable sections are Regulations 9-8-330 and 9-8-530. Regulation 9-8-330.2 limits the operating time for reliability related activities to 100 hours per year. This limit is repeated in Condition # 21195, Part 2. Regulation 9-8-530 requires meters and records to demonstrate compliance with this operating time limit. No additional monitoring is necessary to demonstrate compliance with these requirements.

Federal Requirements:

There are no applicable NSPS or NESHAPs for diesel-fueled internal combustion engines that are used to power emergency standby generators.

PERMIT CONDITIONS

Condition # 21195

For: S-14 Diesel Engine for Emergency Standby Generator

1. The S-14 Diesel Engine shall exclusively use diesel fuel with a sulfur content of no more than 0.05% by weight. (basis: Cumulative Increase and TBACT)
2. The Permit Holder shall operate S-14 only under the following circumstances:
 - a. For emergency use for an unlimited number of hours.
 - b. For reliability-related activities so long as total hours of operation for this purpose do not exceed 100 hours in a calendar year.(basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-330)

Emergency use is defined by the following circumstances:

- c. In the event of loss of regular natural gas supply;
- d. In the event of failure of regular electric power supply;
- e. Flood mitigation;
- f. Sewage overflow mitigation;
- g. Fire;
- h. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.

(basis: Regulation 9-8-231)

Reliability-related activities are defined as either:

- i. Operation of an emergency standby engine to test its ability to perform for an emergency use; or
- j. Operation of an emergency standby engine during maintenance of a primary motor.

(basis: Regulation 9-8-232)

3. The Permit Holder shall equip S-14 with either:
 - a. a non-resettable totalizing meter that measures hours of operation for the engine; or
 - b. a non-resettable fuel usage meter (20 gallons of fuel shall be assumed to be equivalent to one hour of reliability related operation).(basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-530)

4. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions. A monthly log of usage shall indicate the following:
 - a. Hours of operation (total)
 - b. Hours of operation (emergency)
 - c. For each emergency, the nature of the emergency condition
 - d. Records of the vendor-certified sulfur content for all fuels burned in this engine.The Permit Holder shall maintain all records in a District-approved log. The Permit Holder shall retain the records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulations 9-1-304 and 9-8-530)

RECOMMENDATION

Waive Authority to Construct and issue a Permit to City of Mountain View for:

S-14 Diesel Engine for Emergency Standby Generator; Kohler, Generator Model # 275REOZV, Engine Model # D300 12.1A65, 469 BHP, 740 in³ displacement, 19.8 gallons/hour of low sulfur diesel oil.

By: Carol S. Allen
Senior Air Quality Engineer

March 12, 2004
Date