Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
SIGNIFICANT REVISION

for

Waste Management of Alameda County
Facility #A2066

Facility Address:
10840 Altamont Pass Road
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Application: 8583

TABLE OF CONTENTS

ENGINEERING EVALUATION and STATEMENT of BASIS

Waste Management of Alameda, Inc.; PLANT #2066

APPLICATION #8583

A. BACKGROUND

Waste Management of Alameda, Inc. operates the Altamont Landfill Facility in Livermore, CA. This facility includes the Bay Area's largest active landfill (S-2 with more than 30 million tons of refuse in place), two 3 MW Gas Turbines (S-6 and S-7, landfill gas fired) equipped with Fogging Systems (A-6 and A-7), two 1877 bhp IC Engines (S-23 and S-24, landfill gas fired), one 71 MM BTU/hour Landfill Gas Flare (A-15), waste water treatment operations (permitted: S-19, S-140, and S-141; exempt: S-12, S-20, S-28, S-130, A-130, and S-180), a non-retail gasoline dispensing facility (S-99), and nine diesel engines providing portable or standby power (S-190, S-191, S-192, S-193, S-194, and S-195, S-196, S-197, and S-198).

Waste Management submitted this application to request a modification of the maximum rated heat input for the S-6 and S-7 Gas Turbines. The turbines both generate power for sale and control landfill gas emissions from the S-2 Altamont Landfill. These two 3330 kW Solar turbines are fired exclusively on landfill gas from S-2. Waste Management is proposing to increase the maximum permitted firing and operating rates for these turbines from 40 MM BTU/hour for 24 hours/day and 345 days per year to 57.417 MM BTU/hour, 1378 MM BTU/day (average of 57.4 MM BTU/hour for 24 hours), and 416,000 MM BTU/year (average of 47.5 MM BTU/hour for 24 hours/day and 365 days/year).

Waste Management submitted an application package for the S-6 and S-7 Gas Turbines in October 1987, which was assigned Application # 475. The application package included a completed Data Form C for each gas turbine. On line 3 of each Data Form C (dated 10/9/87), the facility stated that the maximum firing capacity for each turbine was 4.0 E7 BTU/hour (which is equal to 40 MM BTU/hour). However, on the back of the data form, the maximum possibly fuel use rate was listed as 83.3 Mscf/hour of landfill gas with a typical heat content of 5.0 E5 BTU/Mscf, which is equivalent to 41.65 MM BTU/hour. The value on the front of the form was assumed to be the correct value and the back of the form was corrected to show a maximum possible fuel use rate of 80 Mscf/hour. The District issued an Authority to Construct for S-6 and S-7 on July 26, 1988 pursuant to Application # 475. The Permit to Operate was issued on August 25 1989. In both letters, the heat input capacity was listed as 40 MM BTU/hour. In addition, the original permit conditions limited the operating time for each turbine to 345 days per year. Note also that the District's fees for this equipment have always been based on a maximum firing capacity of 40 MM BTU/hour. Schedule B in Regulation 3 states that "the fee shall be computed on the maximum gross combustion capacity of the source" or in other words, the high heating value (HHV) of the source. The District has always interpreted the amount listed on line 3 of the Data Form C to be this maximum gross combustion capacity. Therefore, District computer records and all emission calculations for this equipment were based on a maximum heat input rate of 40 MM BTU/hour (HHV) for each turbine.

During the preparation of the initial MFR Permit for this facility, the District proposed to establish a permit condition limiting the heat input for each turbine to the daily and annual equivalents of 40 MM BTU/hour. Waste Management objected to these proposed limitations and stated that the 40 MM BTU/hour rate was not really a maximum gross combustion capacity for these units but was instead a low heating value (LHV) firing rate based on nominal operating conditions. Although Waste Management requested that the turbine maximum firing capacities be corrected as part of the Title V permit process, the District stated that such a change would result in emission increases and that Waste Management must submit this request in the form of a new permit application package.

Waste Management submitted this application package on November 26, 2003. Waste Management requested to increase the maximum firing rate from 40 MM BTU/hour to 57.417 MM BTU/hour (HHV) in order to (a) correct for converting the original firing rate from low heating value to high heating value, (b) reflect the maximum heat input rate under worst-case conditions versus nominal operating conditions, and (c) provide a comfort zone to ensure compliance in the event of landfill gas flow rate or temperature measurement inaccuracies. The applicant's proposed maximum daily and maximum annual heat input limits (1378 MM BTU/day and 416,000 MM BTU/year) are based on actual operating rate data for the last five years. The District requested additional data on December 16, 2003 to verify actual landfill gas throughput rates for the turbines. The District received additional data from Waste Management on March 15, 2004 and August 25, 2004. This application is now complete.

The S-6 and S-7 Gas Turbines are subject to the federal New Source Performance Standards (NSPS) for Stationary Gas Turbines (40 CFR Part 60, Subpart GG). EPA amended Subpart GG on July 8, 2004. These amendments eliminated the daily monitoring requirement for fuel bound nitrogen for any turbines that are not using a fuel bound nitrogen content to increase the nitrogen oxide emission limit. Consequently, the Schedule of Compliance described in Section V of the MFR Permit is no longer necessary. This application will be used to incorporate the Subpart GG amendments into the MFR Permit and to eliminate the Schedule of Compliance for these turbines. These changes constitute a significant revision of the MFR Permit pursuant to Regulations 2-6-226.3 (relaxation of monitoring requirements) and 2-6-226.7 (incorporation of requirements promulgated by EPA when more than three years remain on the permit term).

B. CRITERIA POLLUTANT EMISSIONS

The current maximum permitted emission rates (from Application # 475) were determined as shown in Table 1. Non-precursor organic compounds (NPOCs) were not calculated for Application # 475.

Table 1. Maximum Permitted Emissions From Application # 475

	From Each Gas Turbine (S-6 and S-7)					S-6 + S-7
	lbs/hour	hrs/day	pounds/day	days/year	tons/year	tons/year
NO_x	9.0	24	216.0	345	37.260	74.520
CO	12.8	24	307.2	345	52.992	105.984
POC	2.4	24	57.6	345	9.936	19.872
SO_2	0.3	24	7.2	345	1.242	2.484
PM_{10}	1.5	24	36.0	345	6.210	12.420

The turbines are also currently subject to the following outlet concentration limits:

- 42 ppmv of NO_x at 15% O_2 (Basis: BARCT from Regulation 9-9-301.1);
- 128 ppmv of CO at 15% O_2 (Basis: Cumulative Increase, determined during initial MFR permit evaluation from original limit in Table 1);
- 120 ppmv of NMOC as CH_4 at 3% O_2 (Basis: BARCT from Regulation 8-34-301.4)

For landfill gas containing 50% methane (with an HHV Heat Content of 497 BTU/scf at 70 °F and an F-Factor of 9605 scf of flue gas at 0% O_2 and 70 °F per MM BTU), the above outlet concentration limits for NO_x, CO, and NMOC are equivalent to emission rates of:

- 0.170 pounds of NOx per MM BTU (calculated as NO_2)
- 0.315 pounds of CO per MM BTU
- 0.056 pounds of NMOC per MM BTU (calculated as CH_4)

The non-methane organic compound (NMOC) emission limit includes both precursor organic compounds (POC) and non-precursor organic compounds (NPOC). Non-precursor organic compounds include ethane,

acetone, methylene chloride, perchloroethylene, 1,1,1 trichloroethane, and many chlorofluorocarbons. Based on landfill gas analysis data for this site, the average POC/NPOC distribution in landfill gas at this site is: 85% POC and 15% NPOC by weight.

There are no sulfur dioxide emission limits for the turbines in the current permit conditions. However, there are several applicable regulatory limits, which are listed below followed by equivalent Pounds/MM BTU emission rates. In addition, a limit on the sulfur content of the landfill gas at the A-15 Flare will also apply to the landfill gas burned at the turbines, because all of the landfill gas passes through the same header system before distribution to the control devices. The applicable emission limits and the maximum permitted emission rates are listed below. The lowest applicable emission factor is the equivalent to the Application # 475 hourly limit.

- 300 ppmv of SO_2, dry basis, in exhaust (Basis: Regulation 9-1-302)
  0.477 pounds of SO_2 per MM BTU
- 0.015% by vol (150 ppmv) of SO_2 at 15% O_2 (Basis: 40 CFR 60.333(a))
  0.845 pounds of SO_2 per MM BTU
- 0.8% sulfur by weight in fuel (Basis: 40 CFR 60.333(b))
  2.496 pounds of SO_2 per MM BTU
- 200 ppmv of TRS as H_2S in landfill gas (Basis: A-15, Condition # 19235, Part 11)
  0.0666 pounds of SO_2 per MM BTU
- 0.3 pounds/hour of SO_2 (Basis: Cumulative Increase from Application # 475)
  0.0075 pounds of SO_2 per MM BTU

There are no particulate emission limits for the turbines in the current permit conditions. However, Regulation 6 applies, and the applicable limit is listed below, followed by the equivalent emission rate in Pounds/MM BTU. The original permitted emission rate of 1.5 pounds/hour was divided by the original capacity of 40 MM BTU/hour to develop an equivalent emission factor. The AP-42 emission rate is also listed below for comparison. The lowest applicable emission factor limit is the equivalent to the Application # 475 hourly limit.

- 0.15 grain/dscf of exhaust (Basis: Regulation 6-310)
  0.2058 pounds of PM_{10} per MM BTU
- 1.5 pounds/hour of PM_{10} (Basis: Cumulative Increase from Application # 475)
  0.0375 pounds of PM_{10} per MM BTU
- 22 pounds PM_{10} / MM sdcf of CH_4 (Basis: AP-42, page 2.4-15)
  0.0221 pounds of PM_{10} per MM BTU

The applicant provided source test data for each gas turbine from 1999 through 2004. The results of this source test data are summarized in Table 3. As shown in Table 2 below, the actual hourly emissions (Pounds/Hour) and actual emission rates (pounds/MM BTU) of NO_x, CO, and NMOC from both gas turbines are far below the hourly limits from Application # 475 and the emission rate equivalents of the applicable concentration limits. The sulfur dioxide data is limited to one test per turbine from 1999. However this test indicates that the manufacturer's projected SO_2 emission rate of 0.3 pounds/hour (equivalent to about 25 ppmv of TRS in landfill gas) is being exceeded.

Table 2. Source Test Summary for S-6 and S-7 Gas Turbines (1999 – 2004)

	S-6 Average	S-6 Maximum	S-7 Average	S-7 Maximum	Current Limits
Pounds / Hour					
NO_x	4.22	5.80	4.21	4.80	9.0
CO	2.39	2.70	2.77	3.10	12.8
NMOC	0.19	0.30	0.30	0.50	2.4 (POC)
SO_2 *	0.86	0.86	0.69	0.69	0.3
Pounds / MM BTU					
NO_x	0.109	0.131	0.104	0.112	0.170
CO	0.062	0.067	0.069	0.085	0.315
NMOC	0.005	0.011	0.007	0.014	0.056
SO_2 *	0.019	0.019	0.016	0.016	0.008

* SO_2 data is based on one test on each turbine in 1999. For S-6, SO_2 was not detected, and the emission rates in this table were based on ½ of the detection limit.

The applicant has requested that each turbine be allowed to operate at the following heat input rates: maximum of 57.417 MM BTU/Hour, maximum of 1378 MM BTU/Day, and at least 416,000 MM BTU/Year.

Since the actual turbine emission rates of NO_x and CO are well below the regulatory emission rate equivalents, the applicant agreed to accept permit condition limits that are lower than these regulatory equivalent limits. The District's proposed emission factors (Pounds/MM BTU) are equal to the daily emissions from Table 1 (Pounds/Day) divided by the proposed maximum daily heat input limit (MM BTU/Day). The proposed limits (Pounds/MM BTU for NO_x and CO) will ensure that turbine emissions of these pollutants will not exceed originally permitted emission rates at the revised heat input limits. Note that the actual turbine emissions of NO_x and CO from Table 3 are still well below the proposed emission rate limits.

The applicant requested that turbines be subject to the NMOC limit in Regulation 8-34-301.4, which EITHER requires 98% control of NMOC by weight OR limits the outlet concentration to 120 ppmv of NMOC expressed as methane at 3% oxygen. For this site, the outlet concentration limit is expected to result in the highest emission rate. Therefore, all calculations are based on this outlet concentration limit. Currently, Condition # 18773, Part 3 limits NMOC to the Regulation 8-34-301.4 outlet concentration limit only. To prevent any potential conflicts between Part 3 and Regulation 8-34-301.4, the District is proposing to delete the limit in Part 3. Since the outlet concentration limit results in a higher emission limit than the destruction efficiency limit, allowing these turbines to meet either limit (by deleting Part 3) will have no impact on the maximum NMOC emission factor for the turbines. As discussed earlier, calculations of POC and NPOC emissions are based on the assumption that that the NMOC emissions contain 85% POC and 15% NPOC by weight.

The proposed emission factor for PM_{10} (0.0261 pounds/MM BTU) was calculated in the same manner as the limits for NO_x and CO (Daily Emissions From Table 1 / New Daily Heat Input Limit). Although no source test data is available to show compliance with this proposed limit, the PM emission rate that was determined from the AP-42 emission factor for landfill gas fired turbines is less than this proposed limit. Therefore, S-6 and S-7 are expected to comply with this PM emission factor limit.

Since the turbines are not meeting the current implied emission limit of 0.3 pounds of SO_2 per hour, a new SO_2 limit is required. The sulfur content in the landfill gas at this facility is limited to 200 ppmv of TRS expressed as H_2S pursuant to Condition # 19235, Part 11 for the A-15 Landfill Gas Flare (Basis: Cumulative Increase and RACT). This limit is equivalent to an emission rate of 0.0666 pounds of SO_2/MM BTU and 91.8 pounds/day at the proposed daily heat input limit. Since maximum daily sulfur dioxide emissions will increase for each turbine and these emissions are more than 10 pounds per day, S-6 and S-7 are subject to BACT for SO_2 emissions. From the District's BACT/TBACT Workbook, BACT for SO_2 emissions from a landfill gas fired turbine is a fuel sulfur content limit of 150 ppmv of TRS, expressed as H_2S. The equivalent emission factor limit for this BACT level is 0.04998 Pounds/MM BTU for landfill gas at 50% methane.

The proposed emission factor limits, revised heat input limits, and resulting maximum proposed emissions are listed in Table 3. This District is proposing an annual heat input limit for the two turbines combined of 838,480 MM BTU/year. This limit will ensure that this project will not result in annual emission increases of POC or NOx.

Table 3. Proposed Emissions Rates and Limits

	Limits for Each Turbine, S-6 or S-7					Total Limits, S-6 + S-7	
	Pounds / MM BTU	MM BTU / Hour	Pounds / Hour	MM BTU / Day	Pounds / Day	MM BTU / Year	Tons / Year
NO_x [a]	0.1567	57.417	9.00	1378	215.93	838480	65.695
CO [a]	0.2229	57.417	12.80	1378	307.16	838480	93.449
POC [b]	0.0474	57.417	2.72	1378	65.32	838480	19.872
NPOC [b]	0.0084	57.417	0.48	1378	11.58	838480	3.522
SO_2 [c]	0.0500	57.417	2.87	1378	68.90	838480	20.962
PM_{10} [d]	0.0261	57.417	1.50	1378	35.97	838480	10.942

a The proposed limits (for NO_x and CO) are equal to the original maximum permitted daily emissions (Pounds/Day) from Table 1 divided by the proposed heat input limit (1378 MM BTU/Day). The permit condition limits will be rounded down to the nearest 0.0001 Pounds/MM BTU.

b Based on 8-34-301.4, total NMOC will be limited to 0.0558 pounds/MM BTU. POC emissions are assumed to be 85% of total NMOC, and NPOCs are assumed to be 15% of NMOC.

c For SO_2 the proposed limit is equal to the BACT limit of 150 ppmv of TRS, expressed as H_2S, in landfill gas containing 50% methane.

d Maximum permitted particulate emissions from the gas turbines are not significant. As with natural gas combustion, landfill gas combustion results in minimal particulate emissions that are far below any regulatory limits. The AP-42 average particulate emission rate for gas turbines (0.0221 pounds/MM BTU) is less than the new maximum permitted emission rate for these turbines (0.0261 pounds/MM BTU). If these turbines were subject to BACT for PM_{10} (which currently is not the case), the use of landfill gas and the existing fuel treatment system would comply with BACT for PM_{10}. Since the probability of compliance with all applicable and implied limits is very high and the turbines are currently using the best technology available to control these emissions, a permit condition limiting PM_{10} would have no impact and is not warranted. Therefore, the District is not proposing to establish a PM_{10} emission limit or to require PM_{10} monitoring at these turbines.

The current permitted emissions and the projected emissions are compared below in Table 4. The proposed permit condition revisions will result in daily emission increases for POC, NPOC, and SO_2 and annual emission increases for NPOC and SO_2.

Table 4. Comparison of Proposed Emissions to Current Permitted Emissions

	From Each Gas Turbine (S-6 or S-7)			Total Turbine Emissions (S-6 + S-7)		
	Current Pounds/Day	Proposed Pounds/Day	Increases Pounds/Day	Current Tons/Year	Proposed Tons/Year	Increases Tons/Year
NO_x	216.0	215.9	none	74.520	65.695	none
CO	307.2	307.2	none	105.984	93.449	none
POC	57.6	65.3	7.7	19.872	19.872	none
NPOC	0.0	11.6	11.6	0.000	3.522	3.522
SO_2 *	7.2	68.9	61.6	2.484	20.962	18.478
PM_{10}	36.0	36.0	none	12.420	10.942	none

* The average heat input rate for 2001-2003 is 357,245.5 MM BTU/Year for S-6 and 350,860.3 MM BTU/Year for S-7. Using the 1999 source test emission rates for sulfur dioxide (0.019 Pounds/MM BTU for S-6 and 0.016 Pounds/MM BTU for S-7), the actual SO_2 emission rate was 6.201 tons/year from S-6 and S-7 combined. Since this actual emission rate exceeds the permitted emission rate, the baseline emission rate for cumulative emission increases is the original permitted emission level (the lesser of either the actual emissions or the permitted emission level per 2-2-605.2).

The cumulative emission increases for all permit applications (since the current NSR rule applicability date of April 5, 1991) are summarized in Table 5 below. For this application, the only pollutant with an increase in emissions is sulfur dioxide. Current facility wide emissions are 39 tons/year of SO_2. Since facility wide SO_2 emissions will not exceed 100 tons/year, sulfur dioxide offsets are not required.

Table 5. Plant Cumulative Emission Increases

	Current Balance Tons/Year	Application Increases Tons/Year	New Total Tons/Year
NO_x	0.000	0.000	0.000
CO	76.124	0.000	76.124
POC	0.000	0.000	0.000
NPOC	0.538	3.522	4.060
SO_2	9.284	18.478	27.762
PM_{10}	7.404	0.000	7.404

C. TOXIC POLLUTANT EMISSIONS

When the S-6 and S-7 Gas Turbines were permitted under Application # 475, the turbines were considered to be exempt from New Source Review pursuant to Regulation 1-115, because the turbines were being installed in response to the Regulation 8, Rule 34 requirement to control landfill gas emissions. Therefore, none of the residual landfill gas contaminant emissions were subjected to the Toxic NSR Policy. Secondary toxic air contaminant emissions (formaldehyde, acetaldehyde, acrolein, hydrogen chloride, hydrogen fluoride, and hydrogen bromide) were not discussed in the original evaluation for Application # 475 but were presumably exempted from the Toxic NSR policy as well. The current concentrations of TACs in the landfill gas and secondary TAC emission rates from these turbines are not expected to be any higher now than the amounts present in 1988. Since the TAC emissions from the turbines were originally exempted from NSR, only the TAC emission increases will be considered subject to the current Toxic Risk Management Policy. The toxic emission increases for this project will be based on the proposed landfill gas throughput rate minus the current baseline landfill gas throughput rate (average throughput for the last three years) times the current toxic concentrations, expected turbine control efficiencies, and expected secondary TAC emission rates.

As discussed above for criteria pollutants, the maximum permitted heat input limit will be 838,480 MM BTU/year (total for the two turbines). This heat input rate is equivalent to 1687.3 MM scf/year of landfill gas at 50% methane from both turbines. From the Applicant's heat input data, the three-year average heat

inputs were 357,246 MM BTU/year to S-6 and 350,860 MM BTU/year to S-7, which is equivalent to 1424.9 MM scf/year of landfill gas at 50% methane from both turbines. Landfill gas throughput increases for this project are 262.352 MM scf/year.

The maximum permitted concentrations of the most significant toxic organic compounds are found in Condition # 19235, Part 12. These concentrations and molecular weights were used to derive uncontrolled emission factors. The landfill gas throughput increase, uncontrolled factor, and turbine control efficiency from AP-42, were used to calculate toxic organic compound emission increases. These organic compound emission increases and the trigger levels are listed in Table 6 below.

This project will significantly increase the allowable sulfur content in the landfill gas (from about 25 ppmv of TRS up to 150 ppmv of TRS) as well as increase landfill gas throughput. Most of the sulfur in landfill gas is hydrogen sulfide. Hydrogen sulfide emission increases were based on the increase in permitted H_2S rate (150/25=6) as well as the increase in landfill gas throughput. Actual site test data shows that the H_2S concentration in Altamont landfill gas is 50-70 ppmv, which is less than half of the new permitted level.

The turbines will also produce secondary TACs. Emission levels of hydrogen fluoride and hydrogen bromide are not significant compared to hydrogen chloride emission rates. The HCl emission rate is based on the current database factor. Emissions of formaldehyde, acetaldehyde, and acrolein may potentially be significant but little test data is available for landfill gas fired turbines and AP-42 does not list any factors. However, AP-42 Chapter 3.1 does provide VOC, formaldehyde, acetaldehyde, and acrolein factors for natural gas and digestor gas fired turbines. Comparisons of these factors to the average VOC emissions from S-6 and S-7 were used to estimate formaldehyde, acetaldehyde, and acrolein factors for this application. The factors are listed in Table 6 below.

Table 6. Comparison of Toxic Emission Increases to Risk Screen Trigger Levels

Toxic Air Contaminant	Uncontrolled Emission Factor (pounds/Mscf)	Gas Turbine Control Efficiency (from AP-42)	Abated Emission Increases (pounds/year)	Risk Screen Trigger Levels (pounds/year)	EI > TL ?
Organic Compounds					
Acrylonitrile	6.855E-05	98.2%	0.32	0.67	no
Benzene	4.440E-04	98.2%	2.10	6.70	no
Benzylchloride	2.908E-05	99.7%	0.02	3.90	no
1,4 Dichlorobenzene	4.178E-04	99.7%	0.33	18.00	no
Ethylene Dibromide	4.855E-05	99.7%	0.04	2.70	no
Ethylene Dichloride	3.836E-05	99.7%	0.03	8.70	no
Ethylidene Dichloride	3.068E-04	99.7%	0.24	120.00	no
Methylene Chloride	5.487E-04	99.7%	0.43	190.00	no
Perchloroethylene	1.028E-03	99.7%	0.81	33.00	no
1,1,2,2 Tetrachloroethane	4.337E-05	99.7%	0.03	3.30	no
Trichloroethylene	4.753E-04	99.7%	0.37	97.00	no
Vinyl Chloride	1.776E-04	99.7%	0.14	2.50	no
Inorganic Compounds					
Hydrogen Sulfide	1.321E-02	98.2%	344.71	8100	no
Secondary Pollutants					
Hydrogen Chloride	5.550E-04	0.0%	145.61	1400	no
Formaldehyde	5.531E-05	0.0%	14.51	33	no
Acetaldehyde	2.732E-05	0.0%	7.17	72	no
Acrolein	3.180E-06	0.0%	0.83	3.9	no

D. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This application is for a change of permit conditions at the turbines, which does not involve any physical changes to the turbines. This project will involve increases of maximum permitted emissions of precursor organic compounds (daily basis only), non-precursor organic compounds, sulfur dioxide, and toxic air contaminants. Total POC emission increases are 7.7 pounds/day, which is less than the CEQA significance level of 80 pounds/day of reactive organic compounds. Total sulfur dioxide emission increases are 61.6 pounds per highest day and 18.5 tons/year. From the District's CEQA Guidelines, there are no thresholds of significance for sulfur dioxide emissions. The proposed sulfur dioxide emission increases will trigger BACT. The turbines will comply with the District's standard BACT determination for sulfur dioxide emissions from landfill gas fired turbines by meeting a landfill gas sulfur content limit of 150 ppmv (expressed as H_2S). Sulfur dioxide offsets are not required, because total facility wide emissions are less than 100 tons/year of sulfur dioxide. This project will result in increases of several toxic air contaminants, but all TAC emission increases are less than the toxic risk screen trigger levels. The applicant's Appendix H Environmental Information Form indicates that there is no possibility that this project will have any significant adverse environmental impacts. Aerial maps indicate that these gas turbines are located more than 1 mile from any residential areas. Since this project has at least a 1-mile buffer zone, no odor impacts are expected. This project will comply with the District's New Source Review rule, the BACT determination is based on standard District determinations and involves no element of discretion, toxic emission increases are less than the risk screen trigger levels, and no odor impacts are expected due to this project's distance from residences. This project will satisfy the requirements of Regulation 2-1-312.11. It involves no elements of discretion, and there is no possibility that this project will result in any significant adverse impacts. Therefore, this application is categorically exempt from CEQA review pursuant to Regulation 2-1-312.11.

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

Regulation 2, Rule 2:

Since this application does not result in any emission increases of NO_x, CO, or PM_{10}, this project is not subject to New Source Review (NSR) for NO_x, CO, or PM_{10}.

This application will result in daily emission increases for POC and NPOC. Since the proposed permitted emission rate for both POC and NPOC will exceed 10 pounds/day each, BACT is required for both POC and NPOC. The District's BACT/TBACT Workbook (Document # 89.3.1) does not list any specific BACT determinations for POC or NPOC emissions. For other landfill gas combustion equipment such as IC engines and boilers, compliance with Regulation 8, Rule 34 constitutes BACT for POC and NPOC emissions. This determination applies to gas turbines as well. Since the gas turbines are complying with Regulation 8-34-301.4, the turbines will satisfy BACT for POC and NPOC emissions.

Although this project will result in daily emission increases of POC, the annual heat input limit will ensure that this project does not result in any annual POC emission increases. Therefore, the offset requirements of Regulation 2-2-302 do not apply. There are no applicable PSD requirements for POC emissions.

While this project results in annual NPOC emission increases, Regulation 2, Rule 2 has no offset or PSD requirements for NPOC emissions.

This project will result in sulfur dioxide emission increases at each gas turbine and maximum permitted emissions at each turbine will be greater than 10 pounds of SO_2 per highest day. Therefore, this project requires BACT for SO_2 emissions. The District's BACT/TBACT Workbook lists a fuel sulfur content limit of 150 ppmv, expressed as H_2S, as the BACT(2) level emission limit for SO_2 emissions from landfill

gas fired turbines (Document # 89.3.1, 6/17/99). The landfill gas at this facility typically contains 50-70 ppmv of TRS, expressed as H_2S. Therefore, the turbines are expected to comply with this emission limit.

Since all of the landfill gas fuel comes from the same source (the S-2 Altamont Landfill), establishing a fuel sulfur content limit at the turbines imposes a de-facto limit on all other landfill gas combustion sources as well. The maximum permitted landfill gas throughput rate for all combustion equipment is about 3.03E9 MM scf/year. The sulfur dioxide emission factor for landfill gas combustion with 150 ppmv of TRS is 2.483E-5 pounds/MM scf. Facility-wide landfill gas combustion results in a total of 37.6 tons/year of SO_2. Other sulfur dioxide sources include portable and emergency standby generators. Emissions from this equipment is estimated to be less than 1 ton/year of SO_2. Total facility-wide emissions are about 39 tons/year of SO_2. Since SO_2 emissions will not exceed 100 tons/year, Regulation 2-2-303 does not apply, and no SO_2 offsets are required.

Since this facility will not emit more than 100 tons/year of SO_2, it is not a major facility for SO_2. Consequently, the PSD requirements of Regulation 2-2-304 do not apply.

Since this facility is major, it is subject to Regulation 2-2-306 Non-Criteria Pollutant PSD. For this project, emission increases of hydrogen sulfide and total reduced sulfur compounds are 345 pounds/year (<0.2 tons/year) for each pollutant. Maximum daily H_2S and TRS emission increases are 1.3 pounds/day. These emission rates are far below the trigger levels in Regulation 2-2-306 of 7 tons/year of H_2S, 10 tons/year of TRS, 38 pounds/day of H_2S, and 55 pounds/year of TRS. Therefore, no additional PSD analyses are required.

New Source Review for Toxic Air Contaminants:

As shown in Table 6, the toxic emission increases for this application are less than the risk screen trigger levels. Therefore, this project complies with the District's Toxic Risk Management Policy as proposed. TBACT does not apply.

As discussed below for the Gas Turbine NESHAP, this facility is not a major facility of HAPs. Therefore, the MACT requirements of Regulation 2-2-317 do not apply.

Regulation 2, Rule 6:

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act (40 CFR, Part 70) and BAAQMD Regulation 2, Rule 6, Major Facility Review (MFR), because it is a major facility, as defined by Regulation 2-6-212. This facility has the "potential to emit," as defined by Regulation 2-6-218, more than 100 tons per year of a regulated air pollutant, specifically more than 100 tons per year of nitrogen oxides and more than 100 tons/year of carbon monoxide. Therefore, this facility is required to have an MFR permit pursuant to Regulation 2-6-301.

This facility is also subject to the Title V operating permit requirements and Regulation 2, Rule 6, MFR permit requirements, because it is a designated facility as defined by Regulation 2-6-204. The Emission Guidelines for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart Cc) require the owner or operator of a landfill that is subject to Subpart Cc and that has a design capacity of greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) to obtain an operating permit pursuant to Part 70. The landfill at this facility is subject to 40 CFR, Part 60, Subpart Cc and has design capacities of 45 million m^3 and 43 million Mg. Therefore, this facility is a designated facility and is required to have an MFR permit pursuant to 2-6-304.

The initial MFR Permit for this facility was issued on December 1, 2003 and was revised on February 5, 2004. This application will require a revision of the current MFR permit. Since this application involves relaxing monitoring requirements and incorporating new federal requirements, this application requires a significant revision, as defined in Regulation 2-6-226.

The proposed MFR permit revisions related to this application are described later in this document.

Regulation 8, Rule 34:

The S-6 and S-7 Gas Turbines are subject to Regulation 8, Rule 34 "Solid Waste Disposal Sites". Regulation 8-34-301.4 limits the organic emissions from landfill gas combustion operations (other than flares) and requires S-6 and S-7 to achieve 98% destruction of non-methane hydrocarbons (NMHC) or to emit no more than 120 ppmv of NMHC, expressed as methane, at 3% oxygen. From the January 2004 source test, these turbines are each emitting <30 ppmv of NMOC, expressed as methane and corrected to 3% O_2 dry basis, and are complying with Regulation 8-34-301.4.

Regulation 9, Rule 9:

The S-6 and S-7 Gas Turbines are subject to Regulation 9, Rule 9 "Nitrogen Oxides From Stationary Gas Turbines". Regulation 9-9-301.1 limits NO_x emissions from S-6 and S-7 to 42 ppmv of NO_x, expressed as NO_2, at 15% oxygen, dry basis. This limit is repeated in Condition # 18773, Part 1. From the January 2004 source tests, the emissions from S-6 are 33 ppmv of NO_x at 15% O_2 and from S-7 are 30 ppmv of NO_x at 15% O_2. Therefore, the turbines are complying with Regulation 9-9-301.1 and Condition # 18773, Part 1.

Federal Requirements:

EG for MSW Landfills: The landfill at this facility is subject to the 40 CFR Part 60, Subpart Cc Emission Guidelines (EG) for Municipal Solid Waste (MSW) Landfills. Effective November 19, 2001, the District's Regulation 8, Rule 34 was approved into the State Plan for MSW Landfills (40 CFR 62.1115). Regulation 8, Rule 34 is now the approved method for implementing this federal EG. Since the S-6 and S-7 Gas Turbines are expected to comply with Regulation 8-34-301.4, these turbines will also comply with 40 CFR, Part 60, Subpart Cc and 40 CFR 62.1115.

NSPS for Stationary Gas Turbines: The S-6 and S-7 Gas Turbines are subject to 40 CFR Part 60 Subpart GG (Standards of Performance for Stationary Gas Standards), because the turbines were built after October 3, 1977 and have rated inputs greater than 10 MM BTU/hour (LHV). Subpart GG limits turbine NO_x emissions to 150 ppmv of NO_x at 15% O_2 (assuming no efficiency adjustments). The January 2004 source test demonstrates that the turbines are meeting this limit as well as the more stringent Regulation 9-9-301.1 limit. Subpart GG also limits the fuel sulfur content to 0.8% by weight. Waste Management has an EPA approved custom fuel sulfur monitoring schedule for these turbines, which requires monthly fuel analysis for total sulfur compounds. All tests show compliance with this fuel sulfur content limit, which is equivalent to an outlet sulfur dioxide concentration of approximately 1070 ppmv of SO_2 at 0% O_2, dry basis.

When the initial MFR Permit was issued, Subpart GG required daily monitoring of fuel bound nitrogen content for all subject turbines that have fuel supplied without intermediate bulk storage, even if the site was not using a fuel bound nitrogen content to increase the nitrogen oxide limit. Subpart GG allowed facilities to request an alternative monitoring schedule for fuel bound nitrogen, but it did not contain an applicable test method for determining fuel bound nitrogen in gaseous fuels. Consequently, S-6 and S-7 are subject to a Schedule of Compliance for this NSPS (see Section V of the MFR Permit). The facility has requested a custom fuel monitoring schedule from EPA. EPA requested that the facility submit data about the fuel bound nitrogen content of the landfill gas from Altamont Landfill. The facility requested EPA approval of a landfill gas testing protocol in order to obtain the requested nitrogen content data. EPA has not responded to this last request. However, EPA amended Subpart GG on July 8, 2004. These amendments do not change any limits and mainly impact monitoring requirements. In particular, fuel bound nitrogen monitoring is no longer required for turbines burning gaseous fuels that are not adjusting the nitrogen oxide limit based on a fuel bound nitrogen concentration. Therefore, the Section V Schedule of Compliance is not necessary and will be deleted. Other monitoring revisions from the Subpart GG amendments will be added to Tables IV-B and VII-B of the MFR Permit.

NESHAPs for MSW Landfills: Any landfills that are subject to the landfill gas collection and control requirements of either the NSPS for MSW Landfills or the EG for MSW Landfills are also subject to the NESHAPs for MSW Landfills (40 CFR, Part 63, Subpart AAAA). This NESHAP requires that subject facilities prepare and implement startup, shutdown, malfunction plans and additional reporting requirements. All applicable requirements are contained in the existing MFR permit, and this facility is expected to comply with these requirements.

NESHAPs for Stationary Combustion Turbines: The NESHAPs for Stationary Combustion Turbines (40 CFR, Part 63, Subpart YYYY) applies to turbines located at major sources of Hazardous Air Pollutants (HAPs). From the District's databank, the highest single HAP is toluene with a current emission rate of 4.38 tons/year. The emissions of all HAPs that are speciated in the databank are 11.87 tons/year. Almost all of these HAP emissions come from the landfill or from landfill gas combustion and are generally proportional to the amount of waste in the landfill. Using a ratio of the landfill's design capacity (47.1 million tons) to the current waste amount (35.5 million tons), the maximum potential HAP emissions for this facility are estimated to be 5.81 tons/year of toluene and 15.75 tons/year of all HAPs combined. Since these projected HAP emissions do not exceed the HAP major facility thresholds (10 tons/year of a single HAP and 25 tons/year combined), this facility is not considered to be a major facility for HAP emissions. Therefore, Subpart YYYY does not apply to these turbines.

E. MFR PERMIT MODIFICATIONS

Section I:

The Responsible Official will be changed to Mr. Ken Lewis pursuant to a July 20, 2004 petition from the current Responsible Official, Mr. James Devlin.

Section II:

The District is proposing to modify the capacity description for the S-6 and S-7 Gas Turbines in Table II-A, as shown below.

Table II A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
S-6	Gas Turbine, fired on landfill gas exclusively	Solar Centaur	T-4500	3330 kW, 57.4 MM BTU/hour
S-7	Gas Turbine, fired on landfill gas exclusively	Solar Centaur	T-4500	3330 kW, 57.4 MM BTU/hour

Section III:

No changes are proposed to this section.

Section IV:

In Table IV-A, IV-B, and IV-D below, a citation error is being corrected (SIP Regulation 1-523.5 does not exist). The July 8, 2004 amendments to 40 CFR, Part 60, Subparts A and GG are identified below in Table IV-B. The proposed revisions to Condition #18773 (discussed in Section VI below) are also reflected in Table IV-B.

Table IV – A
Source-Specific Applicable Requirements
S-2 ALTAMONT LANDFILL WITH LANDFILL GAS COLLECTION SYSTEM AND A-15 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
...			
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	
~~1-523.5~~	~~Maintenance and Calibration~~	~~Y~~[1]	
...			

Table IV – B
Source-Specific Applicable Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
...			
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	
~~1-523.5~~	~~Maintenance and Calibration~~	~~Y~~[1]	
...			
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (~~6/5/98~~7/8/04)**		
...			
40 CFR Part 60, Subpart GG	**Standards of Performance for Stationary Gas Turbines (~~1/27/82~~7/8/04)**		
60.332	Standard for Nitrogen Oxides	Y	

Table IV – B
Source-Specific Applicable Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.332(a)	Subject turbines shall comply with either paragraph (a)(1) or (a)(2)	Y	
60.332(a)(2)	NO_x emission standard for small turbines	Y	
60.332(c)	Paragraph (a)(2) applies to turbines with heat input of: ≥ 10 MM BTU/hour and ≤ 100 MM BTU/hour	Y	
60.332(d)	Paragraph (a)(2) applies to turbines with rated base load of: ≤ 30 MWatts	Y	
60.333	Standard for Sulfur Dioxide	Y	
60.333(a)	SO_2 emission standard	Y	
60.333(b)	Fuel sulfur limit	Y	
60.334	Monitoring Requirements	Y	
60.334(~~b~~a)	Fuel consumption and water or steam to fuel ratio (applies only when a turbine is using a fogging system, A-6 or A-7, to control NOx emissions)	Y	
~~60.334(b)~~	~~For fuel sulfur and nitrogen content~~	~~Y~~	
~~60.334(b)(2)~~	~~fuel monitoring requirements for fuel supplied without intermediate bulk storage (including custom schedule procedures)~~	~~Y~~	
~~60.334(c)~~	~~Excess emissions requiring reports~~	~~Y~~	
~~60.334(c)(2)~~	~~for fuel sulfur content~~	~~Y~~	
60.334(g)	Steam or water to fuel ratio shall be monitored during performance tests to establish acceptable values and ranges. Develop and keep on-site a parameter monitoring plan.	Y	
60.334(h)(1)	fuel sulfur content	Y	
60.334(h)(2)	exemption from fuel nitrogen content monitoring	Y	
60.334(h)(4)	continue monitoring according to EPA-approved custom fuel sulfur content monitoring schedule	Y	
60.334(j)	report any excess of a monitored parameter and all monitor down time (which begins when a sample is not taken by the due date) pursuant to 60.7(c)	Y	
60.334(j)(1)	for nitrogen oxides, report excess of water/steam to fuel ratio (applies only when a turbine is using a fogging system, A-6 or A-7, to control NOx emissions)	Y	
60.334(j)(2)	for sulfur dioxide, report excess of fuel sulfur content limit	Y	
60.334(j)(5)	due dates for excess reports	Y	
60.335	Test Methods and Procedures	Y	
60.335(a)	~~Accuracy for NO_x emission determinations~~performance test requirements	Y	
60.335(b)	Acceptable reference methods, ~~and~~ procedures, and corrections	Y	

Table IV – B
Source-Specific Applicable Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.335(c)	~~Procedures for determining compliance with NO_x and SO_2 standards~~Alternatives to reference methods and procedures	Y	
~~60.335(c)(1)~~	~~procedure for NO_x standard~~	~~Y~~	
~~60.335(c)(3)~~	~~use Method 20 for NO_x, SO_2, and O_2 concentrations in exhaust~~	~~Y~~	
60.335(d)	Analysis methods for measuring fuel sulfur content in gaseous fuels	Y	
60.335(e)	Use appropriate methods when monitoring fuel sulfur content	Y	
...			
BAAQMD Condition # 18773			
Part 1	NOx emission limit (~~Regulation 9-9-301.1~~ Cumulative Increase and Regulation 2-1-301)	Y	
Part 2	CO emission limit (~~Regulation~~ Cumulative Increase and Regulation 2-1-301)	Y	
Part 3	~~NMOC emission limit (Regulation 8-34-301.4)~~Deleted	~~Y~~	
Part 4	Operating criteria for A-6 and A-7 Fogging Systems (Regulation 2-1-301)	Y	
Part 5	Record keeping requirements for turbines and fogging systems (Regulations 2-1-301, 8-34-113, 8-34-301.1, and 8-34-501.2)	Y	
Part 6	Control requirements for collected landfill gas (Regulations 8-34-301 and 8-34-301.1)	Y	
Part 7	Records requirements when a turbine is shut-down (Regulations 8-34-113 and 8-34-501.2)	Y	
Part 8	Heat Input Limits (Cumulative Increase and Regulation 2-1-301)	Y	
Part 9	Combustion Chamber Discharge Temperature Limits and Temperature Monitor and Recorder Requirements (Regulations 8-34-301.4, 8-34-501.11, and 8-34-509)	Y	
Part 10	Fuel Sulfur Content Limit and Custom Fuel Sulfur Content Monitoring Schedule (BACT, Regulation 9-1-302 and 40 CFR 60.333(a-b) and 60.334(~~b~~h)(~~2~~4))	Y	
Part 11	Annual Source Test Requirement (Cumulative Increase; Regulations 2-1-301, 8-34-301.4, 8-34-412, 8-34-509, and 9-9-301.1; and 40 CFR 60.8, 60.332(a)(2) and 60.33~~3(a)~~5)	Y	

Table IV – D
Source-Specific Applicable Requirements
S-23 INTERNAL COMBUSTION ENGINE
S-24 INTERNAL COMBUSTION ENGINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
...			
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	
~~1-523.5~~	~~Maintenance and Calibration~~	~~Y[1]~~	
...			

Section V:

As discussed above in Section D of this report, the Schedule of Compliance is no longer necessary due to the July 8, 2004 amendments to 40 CFR Part 60 Subpart GG. The proposed revisions to Section V are identified below.

V. SCHEDULE OF COMPLIANCE

~~A. STANDARD SCHEDULE OF COMPLIANCE~~

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

~~B. CUSTOM SCHEDULE OF COMPLIANCE~~

~~The permit holder is currently not complying with 40 CFR 60.334(b)(2), which requires daily analysis of the fuel supply to the S-6 and S-7 Gas Turbines for nitrogen content, unless EPA has approved a custom nitrogen content monitoring schedule. However, this NSPS regulation (40 CFR Part 60, Subpart GG) does not have an EPA approved test method for monitoring the nitrogen content in gaseous fuels such as landfill gas. The permit holder must obtain EPA approval for any proposed test methods before the required testing can begin. The permit holder has submitted a request for a custom nitrogen content monitoring schedule to EPA, but has not yet received EPA approval for this custom monitoring schedule or for an appropriate test method. Therefore, the District is imposing the following Schedule of Compliance.~~

~~1. Within 30 days of the issuance of the MFR Permit, the Permit Holder shall submit a request to EPA that identifies a proposed test method for determining the nitrogen content in the fuel supply (landfill gas) for the S-~~

~~6 and S-7 Gas Turbines and requests EPA approval of this test method.~~

~~2. The Permit Holder shall submit any additional information requested by EPA, pursuant to the above request for EPA approval of a test method, in the time period specified by EPA.~~

~~3. Within 30 days of receiving EPA approval of a test method, the Permit Holder shall begin complying with the nitrogen content monitoring requirements of 40 CFR 60.334(b)(2).~~

~~4. In addition to the semi-annual compliance and monitoring reports that are required by Section I.F of this permit, the Permit Holder shall submit semi-annual reports to the District's Compliance and Enforcement Division that discuss the progress the permit holder has made with respect to each of the above milestones (Sections V.B.1-3 above). These progress reports shall contain copies of all written correspondence on this issue between the permit holder and EPA during the reporting period and shall contain a summary of all testing completed pursuant to 40 CFR 60.334(b)(2) during the reporting period. The reporting period dates and report submittal due dates shall be the same as those identified in Section I.F of this permit.~~

~~5. This Schedule of Compliance shall remain in effect until the permit holder has attained compliance with 40 CFR 60.334(b)(2) and has submitted at least one progress report pursuant to Section V.B.4 above.~~

Section VI:

Proposed permit condition revisions are shown below in strikeout and underline format. These proposed revisions are explained in more detail in the paragraphs following the condition text.

Condition # 18773
FOR: S-6 GAS TURBINE WITH A-6 FOGGING SYSTEM AND
FOR: S-7 GAS TURBINE WITH A-7 FOGGING SYSTEM

1. Nitrogen oxide (NO_x) emissions from each Gas Turbine (S-6 and S-7) shall not exceed ~~42 ppmv of NO_x, corrected to 15% oxygen, dry basis~~ 0.1567 pounds of NO_x (calculated as NO_2) per MM BTU. (Basis: ~~Regulation 9-9-301.1~~ Cumulative Increase and Regulation 2-1-301)

2. Carbon Monoxide (CO) emissions from each Gas Turbine (S-6 and S-7) shall not exceed ~~128 ppmv of CO, corrected to 15% oxygen, dry basis~~ 0.2229 pounds of CO per MM BTU. (Basis: Cumulative Increase and Regulation 2-1-301)

3. ~~Non-methane organic compound (NMOC) emissions shall not exceed 120 ppmv of NMOC, expressed as methane, corrected to 3% oxygen, dry basis, which is~~

~~equivalent to 40 ppmv of NMOC, expressed as methane, corrected to 15% oxygen, dry basis. (Basis: Regulation 8-34-301.4)~~Deleted

4. Each Gas Turbine is equipped with a Fogging System (A-6 or A-7). The A-6 and A-7 Fogging Systems are not required for compliance and may be operated or not operated at the discretion of the Permit Holder. (Basis: Regulation 2-1-301)

5. A District-approved logbook shall be maintained on the number of days each Gas Turbine is operated and the days when each Fogging System is operated. (Basis: Regulation 2-1-301, 8-34-113, 8-34-301.1, and 8-34-501.2)

6. In the event of a Gas Turbine shutdown, all landfill gas normally fired by the non-operating Gas Turbine(s) shall be diverted to one or more of the other approved landfill gas control devices for this facility unless the requirements of Regulation 8-34-113 are being followed. Raw landfill gas shall not be vented to the atmosphere, except for unavoidable landfill gas emissions that occur during control system installation, maintenance, or repair that is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 and for inadvertent component leaks that do not exceed the limits specified in 8-34-301.2. (Basis: Regulations 8-34-113, 8-34-301 and 8-34-301.1)

7. The time between the Gas Turbine shut-down and the start-up of the alternative control device(s) shall be included in calculating the shutdown exemption under Regulation 8-34-113. (Basis: Regulations 8-34-113 and 8-34-501.2)

8. ~~[reserved for future use]~~The heat input to each Gas Turbine (S-6 and S-7) shall not exceed 1378 MM BTU during any day. The combined heat input to both Gas Turbines (S-6 and S-7) shall not exceed 838,480 MM BTU during any consecutive 12-month period. To demonstrate compliance with this part, the Permit Holder shall maintain the following records in a District-approved logbook:
   a. Continuously monitor and record the landfill gas flow rate to the turbines in accordance with Regulations 8-34-508 and 8-34-501.10.
   b. On a daily basis, measure and record the methane concentration, temperature, and pressure of the landfill gas at the landfill gas flow rate monitor.
   c. On a daily basis, measure and record the operating rate and operating time for each turbine.
   d. On a monthly basis, calculate and record the maximum daily heat input rate to each gas turbine and the total annual heat input rate (for the previous 12 consecutive months) to both gas turbines using the above records, the heat content (HHV) for methane of 1013 BTU/scf at 60 degrees F, and District-approved calculation procedures.

   All records shall be maintained on site or shall be made readily available to District staff upon request for a period of at least 5 years from the date of entry.

These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations. (Basis: Cumulative Increase and Regulation 2-1-301)

9. The combustion chamber discharge temperature for each Gas Turbine shall be maintained between ~~1120~~ 855 and 1220 degrees Fahrenheit, averaged over any 3-hour period. If a source test demonstrates compliance with all applicable requirements at different minimum or maximum temperatures, the APCO may revise these temperature limits, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415, based on the following criteria. The minimum combustion chamber discharge temperature for S-6 and S-7 shall be equal to the average combustion chamber discharge temperature measured during a complying source test (NMHC and CO emission limits were met) minus 50 degrees F. The maximum combustion chamber discharge temperature for S-6 and S-7 shall be equal to the average combustion chamber discharge temperature measured during a complying source test (NOx emission limit was met) plus 50 degrees F. To demonstrate compliance with these temperature limits and Regulations 8-34-501.11 and 509, each Gas Turbine shall be equipped with a continuous temperature monitor and recorder, which will accurately measure the combustion chamber discharge temperature for each Gas Turbine. (Basis: Regulations 8-34-301.4, 8-34-501.11 and 8-34-509)

10. The concentration of total reduced sulfur (TRS) compounds in the landfill gas fuel for S-6 and S-7 shall not exceed 150 ppmv of TRS, expressed as H_2S. In order to demonstrate compliance with this part, 40 CFR 60.333(b), 60.334(~~b~~h)(~~2~~4), and the custom fuel sulfur monitoring schedule approved by EPA on July 6, 1994, the Permit Holder shall measure and record the sulfur content of the landfill gas on a monthly basis in accordance with 40 CFR 60.335(d) and during the annual performance test in accordance with 40 CFR 60.335(b)(10). This fuel sulfur data shall also be used as a surrogate for demonstrating compliance with the sulfur dioxide emission limits in Regulation 9-1-302 and 40 CFR 60.333(a). (Basis: BACT, Regulation 9-1-302 and 40 CFR 60.333(a-b) and 60.334(~~b~~h)(~~2~~4))

11. In order to demonstrate compliance with Regulations 8-34-301.4, 8-34-412, 8-34-509, and 9-9-301.1; Parts 1, 2, ~~3,~~ and 8 above; and 40 CFR 60.332(a)(2) ~~and 60.333(a)~~; the Permit Holder shall ensure that a District approved source test is conducted annually on each Gas Turbine (S-6 and S-7). The annual source test shall be conducted at the four loads (30%, 50%, 75%, and 90%-100% of full load, ± 5%) specified in 40 CFR 60.335(b)(2). The annual source test shall determine the following (for each test load):
    a. landfill gas flow rate to each gas turbine (dry basis);
    b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), methane (CH_4), and total non-methane organic compounds (NMOC) in the landfill gas;
    c. stack gas flow rate from each gas turbine (dry basis);

d. concentrations (dry basis) of NO_x, CO, NMOC, and O_2 in the stack gas;
e. NMOC destruction efficiency achieved by each turbine; ~~and~~
f. average temperature in the combustion chamber discharge of each gas turbine during the test period~~.~~;
g. emission rates in pounds per MM BTU of NO_x (calculated as NO_2) and CO; and
h. mean NO_x concentration corrected to 15% O_2 and ISO standard ambient conditions using the correction equation in 40 CFR 60.335(b)(1).

Each annual source test shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 60 days of the test date.
(Basis: Cumulative Increase, Regulations 2-1-301, 8-34-301.4, 8-34-412, 8-34-509, and 9-9-301.1, and 40 CFR 60.8, 60.332(a)(2) and 60.33~~3(a)~~5)

Explanation of Condition Revisions:

Part 1: Currently, this part repeats the applicable NO_x limit from Regulation 9-9-301.1. It is not necessary to repeat a regulatory limit in a permit condition. Citing a regulatory limit in a permit condition may lead to inconsistencies if the regulatory limit is revised in the future. Therefore, the District is proposing to delete this outlet NO_x concentration limit. In accordance with Application # 475, each turbine was originally permitted to emit up to 216.0 pounds per day of NO_x (calculated as NO_2). To ensure that this daily emission rate is not exceeded, each turbine will be limited to a maximum daily heat input rate of 1378 MM BTU per day (see Part 8) and an emission rate of 0.1567 pounds of NO_x (calculated as NO_2) per MM BTU:

(216.0 pounds NO_x/day) / (1378 MM BTU/day) = 0.1567 pounds NO_x / MM BTU

Compliance with this emission rate limit will be determined during the annual source test (see Part 11g).

Part 2: Currently, this part limits the CO concentration in the exhaust from each turbine. This CO concentration was calculated based on the original CO emission rate limit of 12.8 pounds per hour using assumptions about the landfill gas methane concentration, flue gas generation rate, and maximum fuel flow rate. Since landfill gas quality variations can impact the outlet CO concentration without impacting compliance with the maximum CO emission rate, the District is proposing to change this limit to a more consistent standard. In accordance with Application # 475, each turbine was originally permitted to emit up to 307.2 pounds per day of CO. To ensure that this emission rate is not exceeded, each turbine will be limited to a maximum daily heat input rate of 1378 MM BTU per day (see Part 8) and an emission rate of 0.2229 pounds of CO per MM BTU:

(307.2 pounds CO/day) / (1378 MM BTU/day) = 0.2229 pounds CO / MM BTU

Compliance with this emission rate limit will be determined during the annual source test (see Part 11g).

Part 3: Currently, this part repeats one of compliance options in Regulation 8-34-301.4. It is not necessary to repeat a regulatory limit in a permit condition. Also, this part may potentially be in conflict with Regulation 8-34-301.4, because it does not include the second compliance option (98% destruction efficiency) that is available in Regulation 8-34-301.4. To avoid conflicting requirements, the District is proposing to delete Part 3.

Part 8: The District is adding maximum daily and maximum annual heat input limits to clearly identify the maximum permitted capacity for each turbine. The District is also adding the record keeping requirements necessary to ensure compliance with the new heat input limits. These limits were established based on the maximum firing rates and actual operating rates for these turbines that were reported by the applicant. The heat input limits combined with the emission factor limits in Parts 1 and 2 and Regulation 8-34-301.4 will limit the daily and annual emission rates of NO_x, CO, and NMOC. These limits are necessary to ensure that this application to modify the turbine capacities does not trigger BACT for NO_x or CO and does not trigger offsets for NO_x or POC.

Part 9: The minimum temperature is being revised based on January 2004 source test data and the criteria specified in Part 9. For a detailed explanation of this change, see Application # 9326 and the associated minor revision of the MFR Permit that was proposed on September 1, 2004.

Part 10: This application results in emission increases of sulfur dioxide. Each turbine is subject to BACT for SO_2 emissions. This part is being revised to add the applicable BACT limit. The existing monitoring requirements in this part will also demonstrate compliance with this new BACT limit. Several citations in Part 10 are being revised to reflect EPA's amendments to 40 CFR Part 60 Subpart GG. For turbines using a custom fuel sulfur content monitoring schedule to comply with Part 60.333, the July 2004 amendments require that the sulfur content be measured during performance tests. This new testing requirement is being added to Part 10.

Part 11: The facility is currently required to measure the fuel flow rate, exhaust flow rate, and NOx, CO, NMOC, and O_2 outlet concentrations during the annual source test. These measurements may be used to determine emission rates in units of pounds per MM BTU using standard calculation procedures. The District is adding a requirement to calculate the NOx and CO emission rates (in pounds/MM BTU) to demonstrate compliance with Parts 1 and 2. Several citations are being corrected to this application and the July 2004 amendments to Subpart GG. The requirements in the July 2004 Subpart GG amendments to correct NOx emissions for ISO conditions and to conduct performance tests at four different turbine loads are being added to Part 11.

Section VII:

The following revisions will correct erroneous monitoring citations in Tables VII-A, VII-B and VII-D. Condition # 18773 does not have a Part 12. Part 12 was a record retention requirement that was proposed in a preliminary draft of the MFR Permit. However, the District later determined that Part 12 was unnecessary, and it was eliminated prior to public noticing of the initial MFR permit. The District also proposed to require an annual source test for SO_2 emissions in Part 11 of the preliminary draft MFR Permit. This annual SO_2 testing requirement was deleted and replaced by the monthly fuel monitoring requirements in Part 10 prior to public noticing of the initial MFR Permit. The monitoring frequency and monitoring type columns were corrected accordingly, but the monitoring citation error was overlooked.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2 ALTAMONT LANDFILL WITH LANDFILL GAS COLLECTION SYSTEM AND A-15 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
...							
SO_2	BAAQMD 9-1-302	Y		For A-15 Flare: $\leq$ 300 ppm (dry basis)	BAAQMD Condition #	P/M	Sulfur Analysis of

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2 ALTAMONT LANDFILL WITH LANDFILL GAS COLLECTION SYSTEM AND A-15 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
					18773, Parts ~~10-12~~		Landfill Gas and Records
Sulfur Content in Landfill Gas	BAAQMD Condition # 19235, Part 11	Y		≤ 200 ppmv of TRS, expressed as H_2S (dry basis)	BAAQMD Condition # 18773, Parts ~~10-12~~	P/M	Sulfur Analysis of Landfill Gas and Records
...							

In addition to correcting the erroneous monitoring citations discussed above, the District is proposing the following revisions to Table VII-B to reflect the compliance schedule and permit condition revisions discussed under Sections V and VI.

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
...							
~~NMOC~~	~~BAAQMD Condition # 18773, Part 3~~	~~Y~~		~~< 120 ppmv, dry basis @ 3% O_2, expressed as methane~~	~~BAAQMD Condition # 18773, Parts 11-12~~	~~P/A~~	~~Annual Source Tests and Records~~
Combus-tion Chamber Discharge Temper-ature (CCDT)	BAAQMD Condition # 18773, Part 9	Y		~~1120~~ 855 °F ≤ CCDT ≤ 1220 °F averaged over any 3-hour period	BAAQMD 8-34-501.11 and 509 and BAAQMD Condition # 18773, Part 9	C	Temperature Sensor and Recorder
...							

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

SO_2	BAAQMD 9-1-302	Y		≤ 300 ppm (dry basis)	BAAQMD Condition # 18773, Part~~s~~ 10~~-12~~	P/M, A	Sulfur Analysis of Landfill Gas and Records
SO_2	40 CFR 60.333(a)	Y		≤ 0.015% by volume, at 15% O_2, dry basis	BAAQMD Condition # 18773, Part~~s~~ 10~~-12~~	P/M, A	Sulfur Analysis of Landfill Gas and Records
Fuel Sulfur Content	40 CFR 60.333(b)	Y		≤ 0.8% sulfur by weight (< 8000 ppmw)	40 CFR 60.334 (~~b~~h)(~~2~~4) and BAAQMD Condition # 18773, Part~~s~~ 10~~-12~~	P/M, A	~~Monthly~~ Sulfur Analysis of Fuel (LFG) and Records
Fuel Sulfur Content	BAAQMD Condition # 18773, Part 10	Y		< 150 ppmv of TRS (expressed as H_2S) in landfill gas	BAAQMD Condition # 18773, Part 10	P/M, A	Sulfur Analysis of Landfill Gas and Records
...							
NO_x	BAAQMD 9-9-301.1	Y		≤ 42 ppmv, at 15% O_2, dry basis	BAAQMD Condition # 18773, Part~~s~~ 11~~-12~~	P/A	Annual Source Test~~s and Records~~

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-6 GAS TURBINE
S-7 GAS TURBINE
A-6 FOGGING SYSTEM
A-7 FOGGING SYSTEM

NO_x	40 CFR 60.332 (a)(2)	Y		STD = 0.015*14.4/Y + F STD = % NOx (by volume at 15% O_2, dry) For S-6 and S-7: Y = 14.4 (max) and F = 0.0 STD = .015 % or 150 ppmv, at 15% O_2, dry basis	40 CFR 60.334(a) (applies only when turbines are using A-6 or A-7 to control NOx emissions) ~~and 40 CFR 60.334(b)(2)~~ and BAAQMD Condition # 18773, Parts 9 and 11~~-12~~	C ~~and N~~ and C and P/A	Records of Fuel Consump-tion and Water-Fuel Ratio ~~and None (until EPA approves a test method)~~ and Temperature Sensor and Recorder and Annual Source Test~~s and Records~~
NO_x	BAAQMD Condition # 18773, Part 1	Y		~~≤ 42 ppmv, at 15% O_2, dry basis~~ < 0.1567 pounds of NO_x (calculated as NO_2) per MM BTU	BAAQMD Condition # 18773, Part~~s~~ 11~~-12~~	P/A	Annual Source Test~~s and Records~~
CO	BAAQMD Condition # 18773, Part 2	Y		~~≤ 128 ppmv, at 15% O_2, dry basis~~ < 0.2229 pounds of CO per MM BTU	BAAQMD Condition # 18773, Part~~s~~ 11~~-12~~	P/A	Annual Source Test~~s and Records~~
Heat Input	BAAQMD Condition # 18773, Part 8	Y		For Each Turbine: < 1,378 MM BTU / day and For Both Turbines: < 838,480 MM BTU / year	BAAQMD Regulation 8-34-508 and BAAQMD Condition # 18773, Part 8	C, P/M	Gas Flow Meter and Records

As discussed above, the proposed revision to Table VII-D below will correct an error in this monitoring citation.

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S-23 INTERNAL COMBUSTION ENGINE
S-24 INTERNAL COMBUSTION ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
...							
SO_2	BAAQMD 9-1-302	Y		$\underline{\leq}$ 300 ppm (dry basis)	BAAQMD Condition # 18773, Part~~s~~ 10~~-12~~	P/M	Sulfur Analysis of Landfill Gas and Records
...							

Discussion of New or Revised Monitoring Requirements:

As noted earlier, the revisions to Tables VII-A and VII-D and some of the revisions to Table VII-B involve correcting monitoring citations, but these corrections do not involve any revisions to the current monitoring requirements.

40 CFR Part 60.332(a)(2):
The fuel nitrogen content monitoring requirement is being deleted in accordance with the July 2004 amendments to 40 CFR Part 60, Subpart GG, because these turbines are not using a fuel bound nitrogen content correction factor to adjust the Part 60.332(a)(2) NOx limit (as specified in Table VII-B, F=0 in the NOx limit equation). The Permit Holder is currently required to continuously monitor the combustion chamber discharge temperature pursuant to Condition # 18773, Part 9. When this temperature is maintained within the range specified in Part 9, the NOx emissions are expected to comply with the limits in Part 60.332(a)(2). This continuous parametric temperature monitoring is being cited to further demonstrate compliance with the Part 60.332(a)(2) NOx limit, but it is not new or revised.

Condition # 18773, Parts 1-2:
Compliance with the new NO_x and CO emission rate limits will be determined during the annual source test (see Part 11g). Based on five years of annual source test data, the average NO_x emission rate from each turbine was more than 30% below the proposed emission limit and the emission rate did not vary by more than ± 15%. The average CO emission rate for the turbines was 70% below the proposed limit and varied by only ± 6%. Since all measured emission rates have been below the proposed limits and will remain below these limits when variability is taken into consideration, the turbines are expected to continue to comply with each of these proposed limits. Annual source testing has proved to be an adequate method of demonstrating compliance with previous NO_x and CO limits and will continue to be adequate for the proposed NO_x and CO limits.

Condition # 18773, Part 3:
Although Part 3 is being deleted, the NMOC limit in Regulation 8-34-301.4 will remain in effect. Compliance with Regulation 8-34-301.4 will continue to be demonstrated through continuous temperature monitoring pursuant to Part 9 and annual source testing pursuant to Part 11.

Condition # 18773, Part 8:
In Part 8, the District is proposing to add daily heat input limits for each turbine and annual heat input limits for the two turbines combined. Analogous limits are currently in place for other equipment at this site (a flare and two engines). Waste Management is demonstrating compliance with these heat input limits by continuously monitoring the landfill gas flow rate, using equipment operating records to determine flow rates to each device, and using daily methane concentration, temperature, and pressure readings to covert landfill gas flow rates to heat input rates. These procedures are standard methods of monitoring for compliance with heat input rates and are acceptable methods for these gas turbines.

Condition # 18773, Part 10:
Currently, Part 10 requires monthly testing for sulfur content in the landfill gas pursuant to the EPA approved custom fuel sulfur monitoring schedule required by the NSPS for gas turbines. The amendments to Subpart GG require that the fuel sulfur content also be measured during any performance tests. This requirement was added to Part 10; however, the monthly monitoring may be coordinated with the annual test to fulfill both requirements with one set of tests. The District is also proposing to add the BACT limit for fuel sulfur content to Part 10. The existing monitoring is a standard method of monitoring for compliance with a fuel sulfur content limit and is an acceptable method of demonstrating compliance with this new limit.

Condition # 18773, Parts 11:
The proposed revisions to Part 11 are necessary to reflect the July 2004 amendments to Subpart GG, which require that performance tests be conducted at four turbine test loads pursuant to 60.335(b)(2). In addition, this permit application modifies the form of the NOx and CO emission limits (from outlet concentration to pounds/MM BTU). The Part 11revisions require that the annual source test report the measured emission rates in terms of the modified standard. Annual testing will continue to be adequate for demonstrating compliance with the modified NOx and CO standards.

Sections VIII:

The July 8, 2004 amendments to 40 CFR Part 60, Subparts A and GG added or revised numerous test methods. Applicable revisions are reflected in Table VIII. The test method for Condition # 18773, Part 3 is being deleted for consistency with the revisions to Condition # 18773.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
...		
40 CFR 60.8	Performance Tests	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases; AND EPA Reference Method 20, Measurement of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines, or ASTM D6522-00; AND ASTM D1072-80 or 90, D3246-81, 92, or 96, D4084-82 or 94, D4468-85, D5504-01, or D6228-98

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
40 CFR 60.332(a)(2)	NO_x Limit for Gas Turbines	EPA Reference Method 20, Measurement of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines, or ASTM D6522-00
40 CFR 60.333(a)	SO_2 Limit for Gas Turbines	EPA Reference Method 20, Measurement of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
40 CFR 60.333(b)	Fuel Sulfur Content for Gas Turbines	ASTM D1072-80 or 90, ~~D3031-81,~~ D4084-82 or 94, or D3246-81, 92, or 96, D4468-85, D5504-01, or D6228-98
~~40 CFR 60.333(b)~~	~~Fuel Nitrogen Content for Gas Turbines~~	~~EPA Approved Analytical Methods and Procedures~~
...		
~~BAAQMD Condition # 18773, Part 3~~	~~Gas Turbine NMOC Concentration Limit~~	~~Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; OR EPA Reference Method 18, 25, 25A, or 25C~~
...		

Sections IX:

No changes are proposed to this section.

Section X:

These above revisions are summarized in the revision history section as shown below.

X. Revision History

Title V Permit Issuance (Application # 25828): December 1, 2003

Significant Revision (Application # 8324): February 5, 2004

- Modify Permit Condition # 19237, Parts 4, 9, 10, and 11 to revise monitoring procedures for the internal combustion engines (S-23 and S-24).
- Revise Tables IV-D, VII-D, and VIII to reflect revisions to Condition # 19237.
- Make minor corrections to requirements in Tables III, IV-A, IV-B, IV-D, and IV-E.

Minor Revision (Application # 9326): [insert approval date]

- Revise minimum combustion chamber discharge temperature in Permit Condition # 18773, Part 9 and in Table VII-B.

Significant Revision (Application # 8583): [insert approval date]

- In Table II-A, add maximum firing capacity to the equipment descriptions for the S-6 and S-7 Gas Turbines.
- In accordance with the July 2004 amendments of 40 CFR Part 60, Subpart GG, delete the Custom Schedule of Compliance in Section V.B. Update citation references, monitoring requirements, and test methods in Tables IV-B, VII-B, and VIII.
- Amend the turbine NOx and CO emission limits in Section VI, Condition # 18773, Parts 1 and 2 and in Table VII-B. Revise the basis for Parts 1 and 2 in Table IV-B.
- Delete the turbine NMOC concentration limit from Section VI, Condition # 18773, Part 3 and from Tables IV-B and VII-B.
- Add daily and annual heat input limits for the turbines to Section VI, Condition # 18773, Part 8, and to Table IV-B and VII-B.
- Add the BACT fuel sulfur content limit for the turbines to Section VI, Condition # 18773, Part 10 and to Tables IV-B and VII-B.
- Clarify turbine source testing requirements and calculation procedures in Section VI, Condition # 18773, Part 11, and in Tables VII-B and VIII.
- Correct citations in Tables IV-A, IV-B, IV-D, VII-A, VII-B, and VII-D.
- Change the Responsible Official to Mr. Ken Lewis pursuant to a July 20, 2004 petition from the facility.
- Update Section X, Revision History.

Sections XI-XII:

No changes are proposed to these sections.

F. RECOMMENDATION

Issue a new Permit to Operate with the revised source descriptions listed below and a Change of Conditions for the following equipment:

S-6 **Gas Turbine**, Solar Centaur, T-4500, 3330 kW (nominal), 57.4 MM BTU/hour (maximum HHV capacity), fired on landfill gas.

S-7 **Gas Turbine**, Solar Centaur, T-4500, 3330 kW (nominal), 57.4 MM BTU/hour (maximum HHV capacity), fired on landfill gas.

	Signed by Carol S. Allen	September 14, 2004
By:	Carol S. Allen	Date
	Senior Air Quality Engineer	

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