ENGINEERING EVALUATION/STATEMENT OF BASIS

PLANT NAME	**Central Contra Costa Sanitary District**
PLANT NUMBER	**907 (A0907)**
APPLICATION NUMBER	**5738**
PLANT/SITE ADDRESS	**5019 Imhoff Place**
DATE	**11 August 2004**
ENGINEER	**R.E. Frazier**
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1. BACKGROUND

This evaluation (Statement of Basis) is to address changes to the operating conditions associated with the Title V MFR Permit for the Central Contra Costa Sanitary District (CCCSD) main treatment plant in Martinez. There are no emission changes with this Title V Permit Amendment. The permit condition changes, both requested and recommended by District staff, are summarized in the following table. Following the presentation of the summary of the condition changes, a detailed discussion will be provided on a source by source basis. The sources involved in this permit evaluation are:

S-7 Auxiliary Boiler, ME 74139
S-8 Auxiliary Boiler, ME 74140
S-9 Furnace 1, Sewage Sludge, ME 72101
S-10 Furnace 2, Sewage Sludge, ME 72102
S-182 Ash Conveying System
S-188 Gas Turbine Generator with HRSG

Table 1 Summary of Permit Condition Changes

Source/Condition	Current Requirements	Change Requested	Condition Change Type	Basis
S-7 and S-8 Condition 16562, Title Description	No requirement; Source description has typographical error	Remove CB, 700 HP	Administrative	Reg 2-6-201: correction of typographical error (boilers were mis-identified in terms of horsepower)
S-7 and S-8 Condition 16562, parts 2 and 7	No applicable requirement	Change “CCCSD” and related wording to “the Permit Holder”	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements
S-7 and S-8: Condition 16562, part 2, paragraph 2	Weekly monitoring of landfill gas sulfide level while firing LFG	Monthly monitoring of landfill gas sulfide level	Minor	Reduction in monitoring allowed by permit conditions if the facility demonstrated at least 3 months of sulfur concentrations less

				than 150 ppm.
S-7 and S-8: Condition 16562, part 7	Requires initial compliance source testing	Delete references to initial source testing (since it has already been done)	Remove references to initial source testing	Reg 2-6-201: Initial source testing has been completed (sunset provision)
S-7 and S-8; Condition 16562, part 8, paragraph 1	90% NMHC in LFG destruction efficiency	Move 98% or 120 ppm requirement from part 10 to part 8 (effective 7/1/2002); delete part 10	Administrative	Reg 2-6-201, sunset provision
S-7 and S-8, Condition 16562, part 8, paragraph 2	Requires establishment of operating parameter based on compliance source test (to ensure destruction of LFG NMHC)	770 F minimum first pass temperature	Minor	Establishment of monitoring parameters is a minor revision.
S-7 and S-8, Condition 16562, part 9	Recordkeeping	Remove unnecessary wording, add 3-hour averaging period for boiler temperature	Administrative	Reg 2-6-201: Changes in descriptions of applicable requirements allowed
S-7 and S-8, Condition 16562, part 9 (d)	Requires 5 year records retention	Move records retention to 9(e), add records requirement for operating parameter	Minor	Establishment of recordkeeping requirements for operating parameter is a minor revision.
S-9 and S-10, Condition 16563, parts 5, 6, 8, 10, 11, 12, 13 and 14	No applicable requirement	Change “CCCSD” or related wording to “the Permit Holder”; “the District” changed to “APCO”	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements
S-9 and S-10, Condition 16563, part 8	Incremental monitoring requirement	Added wording to clarify incremental monitoring requirements	Administrative	Reg 2-6-201: Changes in descriptions of applicable requirements allowed
S-9 and S-10, Condition 16563, part 10	Initial compliance source testing; particulates and metals	Clarification of wording	Administrative	Reg 2-6-201: Changes in descriptions of applicable requirements

				allowed
S-9 and S-10, Condition 16563, part 12a	90% NMHC abatement (expired 7/1/2002)	Delete	Administrative	Reg 2-6-201: sunset provision
S-9 and S-10, Condition 16563, part 12b	Establishment of operating parameter based on compliance source test (to ensure destruction of LFG NMHC)	Establish top hearth minimum temperature of 1,000 F	Minor	Establishment of monitoring parameters is a minor revision.
S-9 and S-10, Condition 16563, part 14a	Minimum pressure drop setpoint for reporting set at 7.8 in WC	Revise reporting for S-9 and S-10 scrubbers as follows: S-9: 5.9 in WC S-10: 4.7 in WC	Minor	Establishment of monitoring parameters is a minor revision.
S-182, Condition 7055, part 4	Quarterly Visual checks of baghouse collection system	Revise to require use of Mikro-Charge Leakgauge detector/alarm on baghouse outlet	Administrative Amendment	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 4	Visual emission checks	Revise to require visual emission check at least once/day (becomes part 5)	Administrative Amendment	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 5	Recordkeeping	Add applicable recordkeeping for Mikro-Charge LeakGauge (becomes part 6)	Administrative	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 5	No applicable requirement	Change “operator” to “Permit Holder”; “person” changed to “operator”	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements
S-188, Condition 13271, parts 1a, 1b, 7, 12, 13, 16, 17	Landfill gas related requirements	Landfill gas combustion discontinued, remove all references to landfill gas operation	Minor	No changes in permitted emission levels. All landfill gas specific requirements will be removed.

Source S-25 Non-Retail Gasoline Dispensing Facility: In addition to the above changes noted, Table IV-F for source S-25 GDF will be revised to be consistent with the Title V presentation of GDF operating requirements. There are no changes to the conditions for this source.

2. EMISSION CALCULATIONS

This application is only for the above requested changes to the permit conditions. These changes are to reflect changes to the regulations, removing expired requirements, clarifying existing requirements, or correcting permit conditions. There are no emission changes associated with this permit application. Hence no emission calculations are presented. There are, however, some calculations presented that are appropriate to establishing the landfill gas destruction operating parameter setpoints. These calculations will be presented in the body of the discussions of the permit changes for the respective sources.

3. EMISSIONS SUMMARY

There is no change in emissions associated with this permit application, therefore no emissions are presented.

4. CUMULATIVE INCREASE/OFFSETS

There is no change in the cumulative increase for this application. Therefore the cumulative increase is not presented.

5. STATEMENT OF COMPLIANCE

A. Toxic Evaluation:

There is no change in emission levels, therefore no toxic evaluation is necessary.

B. Regulation 1 – General Provisions and Definitions

§1-301: Prohibits discharging emissions in quantities that cause injury, detriment, nuisance, or annoyance. There are no emission changes, therefore no operational or permitted modifications that would necessarily trigger any issues of compliance with Regulation 1-301.

C. Permits – Major Facility Review, Regulation 2 Rule 6

This application complies with applicable requirements of Reg 2-6-403 requiring compliance with 2-6 for a revision to the Title V permit.

D. Permits – New Source Review, Regulation 2 Rule 2 (dated 10/7/98)

1. **BACT:** N/A.

2. **Offset Requirements:** N/A.

3. **Prevention of Significant Deterioration:** N/A

E. Regulation 3 – Fees

Central Contra Costa Sanitary District has complied with all fee requirements.

F. Particulate Matter and Visible Emissions, Regulation 6

1. Section 301 prohibits for more than 3 minutes per hour, visible emissions as dark or darker than Ringelmann 1 or equivalent opacity. The changes in monitoring proposed in this application are expected to improve S-182 Ash Conveying System compliance with this section.

2. Section 305 prohibits emissions of visible particles from causing a nuisance on property other than the operators. S-182 Ash Conveying System is expected to continue to easily comply with this standard.

3. Section 310 limits the particulate concentration in exhaust gases to 0.15 gr/dscf. The change in monitoring from periodic monitoring to continuous is expected to improve S-182 Ash Conveying System compliance with this section..

G. NSPS/NESHAPS

The applicable NSPS requirements are addressed in the discussion of the changes to individual source conditions.

H. CEQA

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311. The engineering review for this project requires only the application of standard permit conditions and standard emissions factors and therefore is not discretionary as defined by CEQA.

8. DISCUSSION OF CONDITION CHANGES

The following is a source by source explanation of the changes being addressed in this Title V Permit Modification application.

S-7 Auxiliary Boiler ME 74139, Multi-Fuel (natural gas, landfill gas, distillate oil)
S-8 Auxiliary Boiler, ME 74140, Multi-Fuel (natural gas, landfill gas, distillate oil)

The changes to the conditions for boiler sources S-7 and S-8 are summarized in the following table and discussed in detail afterward.

Table IIa Summary of Condition Changes for Sources S-7 and S-8

Source/Condition	Current Requirements	Change Requested	Condition Change Type	Basis
S-7 and S-8 Condition 16562, Title Description	No requirement; Source description has typographical error	Remove CB, 700 HP	Administrative	Reg 2-6-201: correction of typographical error (boilers were mis-identified in terms of horsepower)
S-7 and S-8 Condition 16562, parts 2 and 7	No applicable requirement	Change "CCCSD" and related wording to "the Permit Holder"	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements
S-7 and S-8: Condition 16562, part 2, paragraph 2	Weekly monitoring of landfill gas sulfide level while firing LFG	Monthly monitoring of landfill gas sulfide level	Minor	Reduction in monitoring allowed by permit conditions if the facility demonstrated $\geq$3 months of sulfur concentrations less than 150 ppm.
S-7 and S-8: Condition 16562, part 7	Requires initial compliance source testing	Delete references to initial source testing (since it	Remove references to initial source testing	Reg 2-6-201: Initial source testing has been completed (sunset provision)

		has already been done)		
S-7 and S-8; Condition 16562, part 8, paragraph 1	90% NMHC in LFG destruction efficiency	Move 98% or 120 ppm requirement from part 10 to part 8 (effective 7/1/2002); delete part 10	Administrative	Reg 2-6-201, sunset provision
S-7 and S-8, Condition 16562, part 8, paragraph 2	Requires establishment of operating parameter based on compliance source test (to ensure destruction of LFG NMHC)	770 F minimum first pass temperature	Minor	Establishment of monitoring parameters is a minor revision.
S-7 and S-8, Condition 16562, part 9	Recordkeeping	Remove unnecessary wording, add 3-hour averaging period for boiler temperature	Administrative	Reg 2-6-201: Changes in descriptions of applicable requirements allowed
S-7 and S-8, Condition 16562, part 9 (d)	Requires 5 year records retention	Move records retention to 9(e), add records requirement for operating parameter	Minor	Establishment of recordkeeping requirements for operating parameter is a minor revision.

The existing condition 16562 for sources S-7 and S-8 will be archived and a new condition (Condition 21422) established. The changes to Condition 16562 form the basis for Condition 21422 and are discussed as follows.

Condition 16562 was established as part of the original Title V permit for the auxiliary boilers S-7 and S-8. The preamble/description of the sources S-7 and S-8 is being changed to remove the phrase *CB, 700 hp*. CB is an abbreviation for Cleaver Brooks, which is already stated in the description. Boilers are specified in terms of stream production or heat input, but generally not horsepower. After looking through the previous permit applications for these sources, the District has been unable to determine the basis for the 700 hp specification. Hence the wording *700 hp* will no longer be used to describe sources S-7 and S-8.

Additionally, we have changed the acronym CCCSD (an abbreviation of Central Contra Costa Sanitary District) to the Permit Holder, throughout the permit condition for S-7, S-8, S-9, S-10, S-182, and S-188. This is to apply language consistent with our current Title V Permit format.

Part 2 establishes a 300 ppm, dry SO2 limit from the boiler exhaust. Part 2 also requires weekly (calendar) monitoring of landfill gas (LFG) sulfide levels, but allows the facility to reduce the monitoring frequency to monthly basis if CCCSD can demonstrate 3 months of weekly sulfur compositions less than 150 ppm. The monitoring data showing weekly sulfur compositions in landfill gas was provided for the 3rd quarter of 2002, with LFG sulfide levels varying from 59 to 97 ppm, with an average of 50 ppm. The permit condition allowed CCCSD to automatically move

from weekly to monthly monitoring, a procedure which was started in late 2002, after the aforementioned data was recorded. The ACME landfill is in the process of closing and currently only accepts clean fill materials, wood waste, soil, construction waste, etc – all typically low sulfur materials. Over the past 12 months, sulfide concentrations in the landfill gas have remained consistently in the 20 – 30 ppm range.

Part 7 requires an initial compliance source test. Since the initial compliance source test was completed, the wording is no longer applicable, and will therefore be removed. Ongoing compliance source tests will continue to be required at a frequency of at least one time every 60 months, as already written in the permit condition.

Part 8 specifies that the results from the initial source test shall be used to establish an operating parameter to serve as a surrogate to ensure ongoing NMOC destruction while firing landfill gas. The initial source tests have been completed, and the operating parameter which has been chosen is the average first pass boiler temperature at a setpoint of 820 degrees F. In reality, CCCSD has demonstrated compliance with the NMOC destruction efficiency at an average first pass temperature of 786. To ensure compliance, though CCCSD has chosen a temperature of 820 degree F as the temperature at which compliance with the landfill gas destruction requirement was demonstrated. The Landfill NSPS specifies that the temperature setpoint will be established as the average temperature determined during the compliance demonstration source test minus 50 degrees F, on a three-hour average basis. Therefore the compliance parameter will be 770 F or greater. In addition, wording which specifies the procedure for changing the landfill gas destruction efficiency compliance parameter will be included.

All irrelevant portions of permit condition 16562 specifying any expired destruction efficiency or other expired standards shall be removed. Annual source testing to demonstrate compliance with the NMOC abatement is required, and will be included in the revised part 8. Each condition modification will be addressed with the revised conditions listed.

Part 9 specifying the recordkeeping requirements, has been modified to require the keeping of records of the rolling 3 clock-hour average first pass boiler temperatures. All other requirements of part 9 will remain as is.

Part 10 addressed the final NMOC abatement efficiency, effective July 1, 2002. This requirement is now effective and has been built into the requirements listed in part 8. With the requirements listed in part 10 moved to part 8, part 10 has been deleted.

Following is a listing of the previous condition 16562 wording, showing the proposed changes that will be incorporated into the new condition (condition number 21422).

COND# ~~16562~~ 21422 (Corrections shown in strikeout/underline)

For S-7 Auxiliary Steam Boiler 1 and S-8 Auxiliary Steam Boiler 2; Both Boilers Specified as Follows: Cleaver Brooks, ~~CB, 700 HP~~, ME74139, Maximum Firing Capacity: 28 MM Btu/hr with High Turn Down Multi-fuel Burners and Cleaver Brooks induced Flue Gas Recirculation System.

1) S-7 Boiler and S-8 Boiler shall be fired at a rate not to exceed 28 MM Btu/hr per boiler. (Basis: Cumulative Increase)

2) Exhaust gas emissions shall not exceed 300 ppm, dry SO2. ~~CCCSD~~ The Permit Holder shall use the sulfur content of the fuels in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentration. The Permit Holder shall calculate and record the resulting sulfur dioxide concentration at least 1 time every calendar quarter.
(Basis: BAAQMD 9-1-302)

The Permit Holder shall monitor and record the sulfur content of the landfill gas at a frequency of at least one time every calendar month when burning landfill gas.
(Basis: BAAQMD 1-441)

~~CCCSD shall monitor and record the sulfur content of the landfill gas at a frequency of at least one time every calendar week when burning landfill gas. If CCCSD can demonstrate 3 months of weekly landfill gas sulfur compositions less than 150 ppm, the monitoring frequency can be reduced to at least one time every calendar month when burning landfill gas. CCCSD shall calculate and record the resulting sulfur dioxide concentration at least 1 time every calendar quarter.~~

3) Emissions of nitrogen oxides (NOx) shall not exceed 30 ppmv (@ 3 percent O2, dry) when firing gaseous fuels.
(Basis: BAAQMD 9-7-301.1)

4) Emissions of nitrogen oxides (NOx) shall not exceed 40 ppmv (@ 3 percent O2, dry) when firing distillate oil.
(Basis: BAAQMD 9-7-302.1)

5) Emissions of carbon monoxide (CO) shall not exceed 400 ppmv @ 3 percent O2, dry.
(Basis: BAAQMD 9-7-301.2, 9-7-302.2)

6) The distillate oil sulfur content shall not exceed 0.5 percent by weight.
(Basis: Cumulative Increase)

7) To ~~determine~~ demonstrate ongoing compliance with ~~conditions~~ parts 3, 4, and 5, above,

~~CCCSD~~ the Permit Holder shall perform a~~n initial~~ compliance source test ~~within 180 days of permit approval and thereafter~~ at a frequency of at least 1 time every 60 months after the initial source test. Compliance source tests shall be conducted in accordance with District Manual of Procedures (MOP). Source test results shall be kept onsite and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase)

8) While burning landfill gas, ~~organic compound emissions and methane emissions shall be abated by at least 90% by weight across S-7 and S-8 auxiliary Boiler~~ NMOC emissions shall be abated by at least 98% by weight across S-7 and S-8 auxiliary boiler(s), or the exhaust emissions of NMOC shall be less than 120 ppm by volume, dry basis, expressed as methane, corrected to 3% oxygen.
(Basis: BAAQMD 8-34-301.4)

~~To demonstrate compliance with this requirement CCCSD shall perform a pre-approved source test in accordance with the District Manual of procedures.~~

~~For the purposes of establishing an operating parameter to ensure ongoing compliance with the above abatement efficiency standard, CCCSD shall continuously monitor and record combustion temperature during the source test. Upon source test completion and successful demonstration of compliance with the abatement efficiency standard, District staff shall revise this permit condition as an administrative permit amendment to incorporate the specific minimum temperature setpoint.~~

To demonstrate ongoing compliance with this requirement the Permit Holder shall perform a pre-approved annual source test in accordance with the District Manual of Procedures. The annual source test shall be conducted not less than 9 months nor greater than 12 months after the most recent compliance source test.

(Basis: BAAQMD 8-34-412)

To ensure ongoing compliance with the above NMOC destruction efficiency, the Permit Holder shall maintain the rolling 3 clock-hour average first pass boiler temperature of S-7 and S-8 at 770 degrees or greater when burning landfill gas. While burning landfill gas, the Permit Holder shall continuously monitor the first pass temperatures of S-7 and S-8 and shall calculate and record the rolling 3 clock-hour average temperatures in a District-approved log. (Basis: 40 CFR 50.758(c)(1)(i))

If a source test demonstrates compliance with with all applicable requirements at a different minimum first pass temperature, the APCO may revise the above temperature limit, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 based on the following criteria. The minimum first pass temperature for S-7 and S-8 shall be equal to the average first pass temperature measured during a complying source test (NMHC and CO emission limits were met) minus 50 degrees F. (Basis: 40 CFR 60.758(c)(1)(i)

9) ~~To determine compliance with the above conditions~~, ~~t~~The Permit Holder shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including the following information:

a) Monthly records of the quantity of gaseous fuel (therms) and distillate oil (gal) burned at this source.

b) Monthly records of the distillate oil sulfur content certification.

c) Monthly records shall be totaled for each consecutive 12-month period.

d) Records of the rolling 3 clock-hour average first pass boiler temperatures.

e) All records shall be retained onsite for five years from the date of entry, and made available for inspection by District staff upon

request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase, Reg 9-1-304)

~~*10) After July 1, 2002, Total Organic Compound emissions shall be abated by at least 98% by weight across S-7 and S-8 or concentration will be less than 120 ppmv, dry Non-Methane Hydrocarbon (NMHC) as methane corrected to 3% oxygen when firing landfill gas. To demonstrate compliance with this requirement, CCCSD shall perform a pre-approved source test within 60 days of July 1, 2002. During the source test, CCCSD shall continuously monitor and record combustion temperature. Upon Source Test completion and successful demonstration of compliance with abatement efficiency standard, District staff shall revise the permit condition as an administrative permit amendment to incorporate the specific minimum temperature setpoint. (Basis: BAAQMD 8-34-301.4)~~

S-9 Furnace 1, Sewage Sludge, ME 72101, Multiple Hearth, 2.3 dry ton/hr sewage sludge, 27 MM Btu/hr max
S-10 Furnace 2, Sewage Sludge, ME 72102, Multiple Hearth, 2.3 dry ton/hr sewage sludge, 27 MM Btu/hr max

The changes to the conditions for boiler sources S-7 and S-8 are summarized in the following table and discussed in detail afterward.

Table IIb Summary of Condition Changes for Sources S-9 and S-10

Source/Condition	Current Requirements	Change Requested	Condition Change Type	Basis
S-9 and S-10, Condition 16563, parts 5, 6, 8, 10, 11, 12, 13 and 14	No applicable requirement	Change "CCCSD" to "the Permit Holder"; "the District" to "APCO"	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements
S-9 and S-10, Condition 16563, part 8	Incremental monitoring requirement	Added wording to clarify incremental monitoring requirements	Administrative	Reg 2-6-201: Changes in descriptions of requirements allowed
S-9 and S-10, Condition 16563,	Initial compliance source testing;	Clarification of wording	Administrative	Reg 2-6-201: Changes in

part 10	particulates and metals			descriptions of applicable requirements allowed
S-9 and S-10, Condition 16563, part 12a	90% NMHC abatement (expired 7/1/2002)	Delete	Administrative	Reg 2-6-201: sunset provision
S-9 and S-10, Condition 16563, part 12b	Establishment of operating parameter based on compliance source test (to ensure destruction of LFG NMHC)	Establish top hearth minimum temperature of 1,000 F	Minor	Establishment of monitoring parameters is a minor revision.
S-9 and S-10, Condition 16563, part 14a	Minimum pressure drop setpoint for reporting set at 7.8 in WC	Revise reporting for S-9 and S-10 scrubbers as follows: S-9: 5.9 in WC S-10: 4.7 in WC	Minor	Establishment of monitoring parameters is a minor revision.

Condition 16563 was established as part of the original Title V permit for the sewage sludge furnaces S-9 and S-10. The old condition 16563 will be archived and a new condition (Condition 21423) established for S-9 and S-10.

Clarifying wording will be added to parts 5, 6, 8, 11, and 13. The new wording does not change or alter any requirements, but changes the facility or operator name references from “CCCSD” to “the Permit Holder” and/or the BAAQMD name from “the District” to “the APCO”.

Condition 16563 Part 10: Part 10 currently deals with initial source testing, as well as some implied ongoing source testing. The recommended changes to the wording in part 10 are minor changes and/or rearrangements and do not change any requirements.

The most substantive condition changes involve parts 12 and 14. Part 12 addresses the NMOC abatement efficiencies and the monitoring of operating parameters when firing landfill gas. Part 14a establishes the minimum pressure drop across the wet scrubbers to ensure good particulate emission control. The operating temperature parameter for furnace 2 (S-10) was determined shortly after the Title V permit was originally issued. The compliance parameter for furnace 1 (S-9) was determined from source tests conducted in June of 2003. Part 12a will be completely removed, as the 90% NMOC destruction efficiency was an interim standard and has been replaced by the final permanent standard.

Part 12b is the permanent standard—specifying 98% NMOC abatement efficiency or 120 ppm NMOC concentration as methane, corrected to 3% oxygen. In addition this section will specify the minimum hearth 1 operating temperature (parameter) and will mention ongoing compliance source testing. According to the source tests conducted in December 2002 on furnace 2 (S-10) and those of June 2003 on furnace 1 (S-9), compliance was demonstrated at a top hearth (Hearth 1) temperature of 1050 degrees F. The Landfill NSPS [40 CFR 60.758(c)(1)(i)] specifies that the temperature setpoint will be established as the average temperature determined during the compliance demonstration source test minus 50 degrees F, on a three-hour average basis. Therefore the compliance parameter will be 1,000 F or greater. In addition, wording which

specifies the procedure for changing the landfill gas destruction efficiency compliance parameter will be included. In addition, all irrelevant portions of permit condition 16563 specifying any expired NMOC destruction efficiency or other expired standards shall be removed.

Condition 16563, Part 14a: This part specifies the minimum 15 minute average scrubber pressure drop. This requirement is based on 40 CFR 60.155(a)(1). At the time of the development of the initial Title V permit, a conservative average scrubber pressure drop of 7.8 inches of water was chosen, based on then-recent test results, and was the setpoint established for both furnace units. Since that time, additional furnace source tests have been conducted - on both furnaces demonstrating different pressure drops for each furnace. 40 CFR Part 60.155(a)(i) states that if the average particulate matter emissions are less than 0.38 kg/megagram feed, the minimum allowable scrubber pressure drop (pressure drop setpoint) shall be 70 percent of the average scrubber pressure drop from the last performance test.

The latest performance tests for S-10 (Incinerator 2) were conducted on December 5-6, 2002 and produced particulate emissions of 0.204 lb/hour at a dry sludge feed rate of 1683 lb/hr with a 6.7" WC pressure drop across the scrubber. This is equivalent to 0.121 kg PM/Mg of sludge. Since this is less than 0.38 kg PM/Mg sludge, the pressure drop set point shall be 30% below the pressure drop demonstrated in the latest compliance source test. Hence for S-10, the setpoint shall be (6.7)(0.7) = 4.7" water column (W.C.).

The latest performance tests for S-9 (Incinerator 1) were conducted on June 6, 2002 and produced particulate emissions of 0.502 lb/hour at a dry sludge feed rate of 2138 lb/hr with a 8.44" WC pressure drop across the scrubber. This is equivalent to 0.235 kg PM/Mg of sludge. Since this is less than 0.38 kg PM/Mg sludge, the pressure drop set point shall be 30% below the pressure drop demonstrated in the latest compliance source test. Hence for S-9, the setpoint shall be (8.44)(0.7) = 5.9" W.C.

Following is a listing of the previous condition wording, showing the proposed changes which will be incorporated into the new condition (Condition Number 21423) for sources S-9 and S-10.

COND# ~~16563~~ 21423 ----------

For S-9 Furnace 1 and S-10 Furnace 2, Sewage Sludge Incinerator, BSP Multiple Rotary Hearth, 27 MM Btu/hr Max Heat Input.

1) Solid fuel shall be solids derived from CCCSD sewage operations only.
(Basis: Cumulative Increase)

2) S-9 and S-10 combined solid fuel throughput shall not exceed 110 ton/day and 20,000 ton in any consecutive 12 month period.
(Basis: Cumulative Increase)

3) Particulate emissions shall not exceed 0.65 gram per kilogram of dry sludge input (1.3 lb/ton dry sludge input).
(Basis: 40 CFR 60.152(a)(1), NSPS)

4) Particulate emissions shall not exceed 343 mg/dscm (0.15 grain per dscf) of exhaust

gas volume. The actual measured concentration of particulate matter in the exhaust gas shall be corrected to the concentration which the same quantity of particulate matter would constitute in the exhaust gas minus water vapor corrected to standard conditions, containing 12% CO2 by volume, and as if no auxiliary fuel had been used. (Basis: SIP 6-310)

5) Visible emissions shall not exceed 20 percent opacity as detected by an opacity sensing device for a period or periods aggregating more than three minutes in any hour. To comply with this part ~~Central Contra Costa Sanitary District (CCCSD)~~ the Permit Holder shall install and maintain a District-approved opacity sensing continuous Emission monitor (CEM). (Basis: SIP 6-401, 40 CFR 60.152(a)(2))

6) Total combined beryllium emissions from S-9 and S-10 are not to exceed 10 grams in any 24 hr period. Unless a waiver is obtained by the APCO (according to 40 CFR 60.13) ~~CCCSD~~ the Permit Holder is to demonstrate compliance according to EPA Method 104 of Appendix B of 40 CFR 61.33. (Basis: BAAQMD 11-3-301)

7) Total combined mercury emissions from S-9 and S-10 are not to exceed 3200 gram per 24 hour period. Compliance with this section may be demonstrated by performing an EPA Method 105 (Mercury in Wastewater Treatment Plant Sewage Sludge) test or an equivalent test as pre-approved by the APCO. (Basis: BAAQMD 11-5-302, 40 CFR 61.52)

8) If mercury emissions exceed 1600 gram per 24 hour period, ~~CCCSD~~ the Permit Holder shall monitor ~~their~~ mercury emissions at a frequency of at least once every 12 months. (Basis: 40 CFR 61.55(a))

9) Lead emissions are not to exceed 15 lb/day per incinerator (Basis: BAAQMD 11, Rule 1).

10) To demonstrate ~~initial~~ compliance with parts ~~3~~4 through 9, above, an initial source test shall be conducted within 180 days of permit approval, and ongoing source tests at a frequency of at least

once every 60 months. Source test protocols shall be prepared and pre-approved by the APCO prior to performing any source tests. Note: source tests performed prior to issuance of the Title V permit may be used to demonstrate initial compliance as long as appropriate sampling and analysis methods were used and approved by the APCO. Source tests to demonstrate compliance with 40 CFR part 503 may also be used to demonstrate compliance as long as appropriate sampling and analysis methods were used and approved by the APCO. Source test results shall be submitted to the APCO within 60 days of analytical completion.
(Basis: BAAQMD 2-6-501)

a) Sewage Sludge sampling: Sewage sludge sampling shall be performed as noted in part 13(f) below. ~~CCCSD~~ The Permit Holder shall use Method 209F to determine dry sludge content, Method 104 for beryllium, Method 12 for lead, and Method 105 for mercury. (Basis: 40 CFR 60.154)

   ~~Sewage sludge testing for metals content shall be performed at a frequency of at least once every 60 months. Results shall be submitted to the District within 60 days of analytical completion.~~

b) Exhaust particulate testing: Three composite exhaust samples shall be collected according to EPA Method 5 and analyzed for particulate mass. (Basis: 40 CFR 60.154 (d)(3))

   ~~Particulate mass shall be performed at a frequency of at least every 60 months. Results shall be submitted to the District within 60 days of analytical completion~~.

c) Exhaust metals testing: Three composite exhaust samples shall be collected according to EPA Method 5. Two of the samples shall be analyzed by neutron activation for arsenic, cadmium, chromium, copper, nickel, selenium and zinc; and one sample shall be analyzed according to Method 104 (or Method 103) and Method 12, respectively, for beryllium and lead. (Basis: 40 CFR 60.154(d)(3)(i))

~~Exhaust metals testing shall be performed at a frequency of at least once every 60 months. Results shall be submitted to the District within 60 days of analytical completion.~~

11) Ongoing Emissions - Sulfur Dioxide: Exhaust gas emissions shall not exceed 300 ppm, dry SO2. (Basis: BAAQMD 9-1-304)

To demonstrate compliance with this requirement ~~CCCSD~~ the Permit Holder shall perform a District-approved source test at a frequency of at least one time every calendar year. Source tests shall be conducted using BAAQMD Method ST-19A (or an approved equivalent method) according to a pre-approved source test protocol. Results shall be submitted to the ~~District~~ APCO within 60 days of analytical completion. (Basis: BAAQMD 9-1-304)

12~~a~~) ~~Organic compound emissions and methane emissions from landfill gas combustion shall be abated by at least 90% by weight across S-9 and S-10 sewage sludge incinerators. To demonstrate compliance with this standard a minimum temperature surrogate in the incinerator afterburner (Hearth Zero) shall be established according to the results from the S-7 and/or S-8 auxiliary boiler source testing. This operating condition shall be revised accordingly by District staff as an administrative permit amendment at the conclusion of the source testing at S-9 and S-10. This part expires July 1, 20002. (Basis: BAAQMD 8-34-114)~~

~~*12b)~~ ~~After July 1, 2002, Total Organic Compound~~ NMOC emissions shall be abated by at least 98% by weight across S-9 and S-10 or the concentration ~~will~~ shall be less than 120 ppmv, dry ~~non-methane hydrocarbon (NMHC)~~ NMOC, expressed as methane corrected to 3% oxygen when firing landfill gas. To demonstrate compliance with this requirement, ~~CCCSD~~ the Permit Holder shall perform a pre-approved initial source test within 60 days of July 1, 2002 and ongoing source tests at a frequency of not less than 9 months nor greater than 12 months after the most recent compliance source test. Source test protocols

shall be prepared and pre-approved by the APCO prior to performing any source tests. ~~During the source test, CCCSD shall continuously monitor and record combustion temperature. Upon source test completion and successful demonstration of compliance with the abatement efficiency standard, District staff shall revise the permit condition as an administrative permit amendment to incorporate the specific minimum temperature setpoint.~~ To ensure ongoing compliance with the above NMOC abatement or emission standard, the Permit Holder shall maintain the rolling 3 clock-hour average temperature of hearth 1 at 1,000 degrees F or greater. The Permit Holder shall calculate and record the rolling 3 clock-hour average temperatures in a District-approved log. (Basis: BAAQMD 8-34-301.4)

If a source test demonstrates compliance with all applicable requirements at a different minimum hearth 1 temperature, the APCO may revise the above temperature limit, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 based on the following criteria. The minimum hearth 1 temperature for S-9 and S-10 shall be equal to the average hearth 1 temperature measured during a complying source test (NMHC emission limit was met) minus 50 degrees F.
(Basis: 40 CFR 60.758(c)(1)(i)

13) Ongoing Monitoring: To demonstrate compliance with the above parts and as required by the New Source Performance Standard (NSPS) for sewage treatment plants ~~CCCSD~~ the Permit Holder shall:

a) Install, calibrate, maintain and operate a flow measuring device, which can be used to determine either the mass or volume of sludge charged to the incinerator. The sludge flow measurement device shall be certified by the manufacturer to have an accuracy of + 5% over its operating range. The flow measurement device shall be operated continuously and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(a)(1)

b) Install, calibrate, maintain and operate a monitoring device that continuously measures and records the pressure drop of the gas flow through the wet scrubber. Where a combination of wet scrubbers is used in series, the pressure drop of the gas flow through the combined system shall be continuously monitored. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within + 1 in water gauge and shall be calibrated on an annual basis in accordance with manufacturer's instructions. (Basis: 40 CFR 60.153(b)(1))

c) Install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gases. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet in the incinerator exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of + 5 percent over its operating range and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period. (Basis: 40 CFR 60.153(b)(2))

d) Install, calibrate, maintain and operate temperature measuring devices at every hearth in multiple hearth furnaces. A minimum of one thermocouple shall be installed in each hearth in the cooling and drying zones, and a minimum of two thermocouples shall be installed in each hearth in the combustion zone. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of + 5 percent over its operating range. The temperature monitoring devices shall be operated continuously and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(b)(3))

e) Install, calibrate, maintain and operate a device for measuring the fuel flow to

the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of + 5 percent over its operating range. The fuel flow device(s) shall be operated continuous and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(b)(4))

f) Collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content shall be determined in accordance with the method specified in 40 CFR 60.154 c (2). (Basis: 40 CFR 60.153(b)(5))

g) In order to demonstrate compliance with part 2, above, ~~CCCSD~~ the Permit Holder shall maintain daily records of total solid fuel throughput (ton/day) to S-9 and S-10 sewage sludge incinerators. (Basis: Cumulative Increase)

h) All records shall be retained onsite for a period of at least 5 years and made available to the APCO upon request. (Basis: Cumulative Increase)

14) Reporting: As required by the New Source Performance Standard (NSPS) and NESHAPs for Beryllium and Mercury, ~~CCCSD~~ the Permit Holder shall submit to the Administrator and the ~~District~~ APCO semi-annually a report in writing which contains the following: (Basis: 40 CFR 60.155)

a) A record of average wet scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than ~~7.8 inches water gauge~~ the following limits. (Basis: 40 CFR 60.155(a)(1))

(1) S-9 (Furnace 1) Wet Scrubber A-2: 5.9 inches W.C.
(2) S-10 (Furnace 2) Wet Scrubber A-4: 4.7 inches W.C.

b) A record of average oxygen content in the incinerator exhaust gas

(prior to dilution) for each period of 1-hour duration or more that the oxygen content exceeds 10 percent. (Basis: 40 CFR 60.155(a)(2))

c) Any recent reports as appropriate or as requested by the APCO. (Basis: 40 CFR 60.155(a)(3), (4), (5), (6))

S-25 (G6368) Gasoline Dispensing Facility

Table IV-F of the original Title V permit for the Central Contra Costa Sanitary District included six lines for the Regulation 8 Rule 7 requirements and three lines for the Condition 7523 requirements. The current format for GDF sources in Title V permits is to provide significantly more detail in the requirements. Hence Table IV-F has been expanded to provide a detailed listing of GDF requirements consistent with current Title V formatting.

S-182 Ash Conveying System

The changes to the conditions for the Ash Conveying System S-182 are summarized in the following table and discussed in detail afterward.

Table IIc Summary of Condition Changes for Source S-182

Source/Condition	Current Requirements	Change Requested	Condition Change Type	Basis
S-182, Condition 7055, part 4	Quarterly Visual checks of baghouse collection system	Revise to require use of Mikro-Charge Leakgauge detector/alarm on baghouse outlet	Administrative Amendment	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 4	Visual emission checks	Revise to require visual emission check at least once/day (becomes part 5)	Administrative Amendment	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 5	Recordkeeping	Add applicable recordkeeping for Mikro-Charge LeakGauge (becomes part 6)	Administrative	Reg 2-6-201: More frequent emission monitoring allowed
S-182, Condition 7055, part 5	No applicable requirement	Change “operator” to “Permit Holder”; “person” changed to “operator”	Administrative	Reg 2-6-201: change in permit format that is not an alteration of applicable requirements

The ash conveying system in total consists of two sets of particulate abatement systems A-186 baghouse filters and A-196 baghouse filters plus an additional cyclone/baghouse system Cyclone A-191/Baghouse A-192 system (called The *Supervac* by plant operators) used as a backup or for special operations such as cleaning, loading, turnarounds, etc. Particulates captured in these systems are dropped via a pulse jet system off the filter bags and down into the loading hoppers for disposal offsite.

Currently the only monitoring required by permit condition 7055, part 4 is a quarterly visual check of emissions at the vacuum system outlet stacks on the roof of the incinerator building. This method of monitoring is sporadic, expensive and provides no guarantee that significant visible emission episodes would not occur. It is highly improbable that a bag leak would commence during a quarterly fifteen-minute visual inspection. Hence the current quarterly visible inspection is not an adequate method of particulate emission prevention.

We have discussed this issue with Central Contra Costa Sanitary District and have found that they continuously monitor the baghouse systems performance using the *Mikro-Charge LeakGauge* device on each of the three ash control system exhaust lines. These devices have been in service for over three years, and have been shown to be a reliable method for continuous monitoring for ash system particulate leakage.

The normal readings of the *Mikro-Charge LeakGauge* monitors at Central Contra Costa Sanitary District range from 10 to about 100 pico-amperes (pA), which is a very sensitive surrogate evidencing increased particulate emissions with increasing pA measurements. The range is evidence of minor changes in exhaust particulate loading created by the pulse-jet cycling of the abatement system(s). Recent (11/17/03) personal observations of the particulate abatement system exhaust emissions at the roof-top of the incinerator building during the ongoing pulse-jet cycling indicated no visible emissions at any time during the normal operating cycles of the ash conveying abatement system. When a leak occurs anywhere in the system, the emissions will be vented past the *Mikro-Charge LeakGauge* instrument since the majority of the system is under a vacuum. An actual leak in the filtration system would result in a *Mikro-Charge LeakGauge* instrument reading in the thousands of pico-amps. The *Mikro-Charge LeakGauge* is set to alarm at the operators control console at 700 pA which corresponds to an approximate Ringelmann 0.5 visible observation. When the system alarms the operator is alerted and conducts an investigation of the cause of the alarm. The further observation would be an immediate visible examination of the exhaust stack outlets via the remote control video camera system as well as a personal inspection on the roof-top to verify if there is a leak in the system, and which exhaust system/baghouse is leaking. Upon particulate emission verification the abatement system would be immediately taken out of service and repairs commenced. The Supervac system A-191/A-192 would either be placed in service or the ash conveying system shutdown to allow repair of the leak source.

Condition 7055 was established in 1999 for the new ash conveyance and handling system located in and around the incinerator building. The existing condition 7055 will be archived and a new condition established for source S-182. The changes to Condition 7055 form the basis for the new condition, and are discussed as follows.

Condition 7055, Part 4: Part 4 of Condition 7055 will be altered to require the use of the *Mikro-Charge LeakGauge* detector/alarm system as well as a daily visible operator check (during hours of daylight) of the ash abatement system exhaust stacks, either by video camera observation or personal rooftop visual inspection. Any visible emission observation would constitute a leak, requiring immediate operator attention.

Condition 7055, Part 5: Part 5 of Condition 7055 currently addresses records of all emissions checks, maintenance, etc. This part will be slightly modified to address the monitoring of the

Mikro-Charge LeakGauge system alarm event, and will become part 6. The new part 5 will address visual monitoring of the ash conveying abatement system exhaust stacks at an increased frequency, as conducted by the plant operator, as follows:

Following is a listing of the existing condition 7055 wording, showing the proposed changes which will be addressed in the new condition.

COND# 7055 ----------

For S-182, Ash Conveying System

1. All particulate emissions at S-182 shall be abated by either Baghouse A-186, Baghouse A-196, or Cyclone A-191/Baghouse A-192. (Basis: Cumulative Increase)

2. A-186 Baghouse Filters, A-196 Baghouse filters, and A-191 Cyclone/A-192 Baghouse system shall all be properly maintained and kept in good working order. (Basis: Cumulative Increase)

3. A-186 Baghouse Filters, A-196 Baghouse filters, and A-191 Cyclone/A-192 Baghouse system shall all be operated according to and within manufacturer's operating specifications. (Basis: Cumulative Increase)

4. Particulate emissions control systems A-186 Baghouse Filters, A-196 Baghouse Filters, and A-191 Cyclone/A-192 Baghouse System, shall be ~~checked for visible emissions on a quarterly basis when in use~~. monitored continuously for particulate emissions by the use of a Mikro-Charge LeakGauge or equivalent instrument with a setpoint to detect particulate emissions and activate an operator alarm. In the event of an alarm indicating a filter system leak, the Permit Holder shall take all corrective action necessary to minimize emissions and to make the needed repairs. The Mikro-Charge LeakGauge system shall be properly maintained and operated as per Manufacturer recommendations. ~~The visible emissions check shall take place while the equipment is operating and during daylight hours. If any visible emissions are detected, the operator shall take corrective action, and check for visible emissions during the next loading event. If no visible emissions are detected, the operator shall continue~~

~~to check for visible emissions every quarter.~~ (Basis: ~~Regulation~~ BAAQMD 2-6-~~501~~ 503)

5. The exhaust stacks from particulate emissions abatement system A-186, A-196, and A-191/A-192 shall be visually checked and the observation recorded in a District-approved log at a frequency of at least one time during daylight hours either by using the remote control rooftop video camera or by a personal rooftop inspection of the exhaust stacks by the plant operator. An observation of a visible emissions would constitute an abatement system leak, requiring immediate action to minimize further leakage and to make the necessary repairs. (Basis: BAAQMD 2-6-501)

~~5~~6. The ~~operator~~ Permit Holder shall keep records of all Mikro-Charge LeakGauge alarm events, visible emission checks including the ~~person~~ operator performing the check, and all maintenance performed on A-186 Baghouse Filters, A-196 Baghouse Filters, A-191 Cyclone/A-192 Baghouse System, and the Mikro-Charge LeakGauge Instrument system. The records shall be retained for five (5) years and shall be made available to District personnel upon request. (Basis: ~~Regulation~~ BAAQMD 2-6-501)

S-188 Cogeneration Turbine

The changes to the conditions for Cogeneration Turbine S-188 are summarized in the following table and discussed in detail afterward.

Table IId Summary of Condition Changes for Source S-188

Source/Condition	Current Requirements	Change Requested	Condition Change Type	Basis
S-188, Condition 13271, parts 1a, 1b, 7, 12, 13, 16, 17	Landfill gas related requirements	Landfill gas combustion discontinued, remove all references to landfill gas operation	Minor	No changes in permitted emission levels. All landfill gas specific requirements will be removed.

Source S-188 was originally permitted in 1991 to operate on either natural gas, landfill gas, or a combination of the two fuels. In 2000, when the original Title V Permit was issued, the operating conditions for source S-188 were changed (new condition 13271) to reflect the various Regulation 8, rule 34, organic compound destruction efficiency requirements for sources that burned landfill gas.

Since that time, CCCSD operated the turbine on landfill gas for a very short period. The operation with landfill gas was so brief and only for testing purposes, that no Regulation 8, Rule

34 source tests were performed to determine organic abatement efficiencies and operating parameters. During this period, CCCSD determined that feeding landfill gas to turbine S-188 resulted in a system with relatively poor reliability and prone to expensive downtime. As a result, CCCSD decided to eliminate the option to burn landfill gas in the turbine. Therefore, all references to burning landfill gas in the turbine will be removed and a new condition number assigned. All emission and operating requirements based on the NSPS for Stationary Gas Turbines (40 CFR Part 60 Subpart GG) will remain as is. Changes are noted in underline and strikeout format.

In addition, certain language allowing relief from the three-hour average NOx ppm emission standard during start-up and shutdowns was inadvertently removed from Condition 13271 at some point in the past several years. It is unclear how this wording disappeared, but Regulation 9, Rule 9, (NOx from stationary gas turbines) allows a 3-hour window for startup and 1-hr for shutdown. Wording identical to that which was removed will be reinserted in the conditions for S-188.

It should be noted that the existing condition 13271 will be archived and a new condition (Condition 21485) established for source S-188. The changes to Condition 13271 form the basis for the new condition, and are summarize in Table IIdiscussed as follows.

Condition 13271, part 1a, 1b: References to landfill gas combustion or dual fuel operation will be struck from the text.

Condition 13271, part 12: Since the capability to fire landfill gas will be removed, part 12 requiring landfill gas flow monitoring systems will be removed.

Condition 13271, parts 13, 16, and 17: Landfill gas will no longer be burned, hence the organic abatement requirements, the demonstration source test requirements, sulfur compound monitoring, and the requirement to monitor for an operating parameter, as specified in Regulation 8-34 are no longer applicable for this source.

Condition 13271, part 14: This (one-hour) NOx emission standard will be moved up near the other pollutant standards (becoming part 3).

Following is a listing of the existing condition 13271 wording, showing the proposed changes which will be addressed in the new condition (Condition number 21485).

COND# ~~13271~~ 21485 ----------

For S-188 Natural Gas ~~and Landfill Gas~~ Fired Turbine Generator with HRSG; Solar Model Centaur T-4700, 3500 KW, Maximum Firing Capacity 46 MMBtu/hr (LHV) and 49.5 MMBtu/hr (HHV).

1. S-188 Fuel and Capacity

a. S-188 shall be fired only on natural gas ~~and/or landfill gas~~.
(Basis: Cumulative Increase)
b. The S-188 firing rate shall not exceed 1188 MMBtu/day (HHV) ~~on any fuel~~.
(Basis: Cumulative Increase)

c. All natural gas burned at S-188 shall be PUC quality gas. (Basis: Reg 2-1-403)

2. NOx emissions from S-188 shall not exceed 42 ppmv, dry, at 15 percent oxygen based on a three clock hour average. (Basis: Reg 9-9-301.1)

3. NOx emissions from S-188 shall not exceed 154 ppmv, dry, at 15% oxygen based on a clock-hour average. (Basis: 40 CFR 60.332)

[NOTE: This new part 3 was taken from part 14, following]

~~3.~~ 4. NOx emissions from S-188 shall not exceed 118 pounds in any rolling consecutive 24 hour period. (Basis: Cumulative Increase)

~~4.~~ 5. NOx emissions from S-188 shall not exceed 19.824 tons in any rolling 365 consecutive day period. (Basis: Cumulative Increase)

~~5.~~ 6. CO emissions from S-188 shall not exceed 157 pounds each rolling consecutive 24 hour period. (Basis: Cumulative Increase)

~~6.~~ 7. CO emissions from S-188 shall not exceed 26.376 tons in any rolling 365 consecutive day period. (Basis: Cumulative Increase)

~~7~~. 8. Exhaust gas emissions shall not exceed 150 ppm SO2, dry, at 15% O2. ~~CCCSD~~ The Permit Holder shall use the sulfur content of the gaseous fuel~~s~~ in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentration. ~~CCCSD~~ The Permit Holder shall calculate ~~monitor~~ and record the sulfur dioxide concentration at least 1 time every calendar quarter. (Basis: 40CFR Part 60 Subpart GG)

~~8~~. 9. To demonstrate compliance with conditions ~~5~~6 and ~~6~~ 7 above, ~~CCCSD~~ the Permit Holder shall perform a~~n initial~~ compliance source test ~~within 180 days of permit approval and thereafter~~ at a frequency of at least 1 time every 60 months after the ~~initial~~ most recent source test. Source test results shall be kept onsite

and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase)

~~9.~~10. The stack at S-188 shall be equipped with BAAQMD approved source testing ports to allow for the suitable sampling and testing of process flue gas emissions from S-188.
(Basis: Cumulative Increase)

~~10.~~ 11. The ~~permittee~~ Permit Holder shall operate a BAAQMD approved emission monitoring and recording system for S-188 to continuously assure compliance with conditions 2, ~~3~~4, and ~~4~~5, above. Recording made to comply with this condition shall be retained for at least five years from date of last entry. This log shall be kept on-site and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase, Reg 2-6-501)

~~11.~~ 12. The daily usage of natural gas at S-188, as measured at a BAAQMD approved fuel meter dedicated solely to this source, shall be recorded daily in cubic feet (or thousands of cubic feet) in a BAAQMD approved log. This log shall be retained for at least five years from date of last entry. This log shall be kept on-site and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase, Reg 2-6-501)

~~12. The daily usage of landfill gas at S-188, as measured at a BAAQMD approved fuel meter dedicated solely to this source, shall be recorded daily in cubic feet (or thousands of cubic feet) in a BAAQMD approved log. Additionally, the daily average Btu content of the landfill gas, in Btu units, shall be recorded in this BAAQMD approved log. This log shall be retained for at least five years from date of last entry. This log shall be kept on-site and made available to the BAAQMD staff upon request.~~
~~(Basis: Cumulative Increase, Reg 2-6-501)~~

~~13. While burning landfill gas, organic compound emissions and methane emissions shall be abated by at least 90% by weight~~

~~across S-188 cogeneration turbine. To demonstrate compliance with this requirement CCCSD shall perform a pre-approved source test within 60 days of the introduction of landfill gas to S-188 in accordance with the District Manual of Procedures. (Basis: BAAQMD Regulation 8-34-114)~~

~~For the purposes of establishing an operating parameter to ensure ongoing compliance with the above abatement efficiency standard, CCCSD shall continuously monitor and record combustion temperature during the source test. Upon source test completion and successful demonstration of compliance with the abatement efficiency standard, District staff shall revise this permit condition as an administrative permit amendment to incorporate the specific minimum temperature setpoint.~~

~~14. NOx emission from S-188 shall not exceed 154 ppmv, dry, at 15% oxygen based on a clock hour average. (Basis: 40 CFR 60.332)~~

~~15~~. 13 In order to show compliance with parts 1b and ~~14~~ 3, the ~~permittee~~ Permit Holder shall operate a USEPA approved fuel flow monitor and water injection flow monitor and calculate the water-to-fuel ratio on a clock-hour basis and the heat input on a daily basis. (Basis 40 CFR 60.334(c)(1))

1~~6~~4. Exhaust gas emissions shall not exceed 300 ppm SO2, dry basis. CCCSD shall use the sulfur content of the fuels in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentrations. ~~CCCSD shall monitor the sulfur content of the landfill gas, calculate the exhaust gas SO2 concentration by material balance, and record the results at a frequency of at least one time every calendar week when burning landfill gas. If CCCSD can demonstrate 3 months of calculated exhaust gas SO2 concentrations less than 150 ppmv dry at 15% oxygen, the monitoring frequency for landfill gas sulfur analysis can be reduced to at least one time every calendar~~

~~month.~~ (Basis: BAAQMD 9-1-302)

~~*17. After July 1, 2002, Total Organic Compound emissions shall be abated by at least 98% by weight across S-188 or concentration will be less than 120 ppmv, dry Non-Methane Hydrocarbon (NMHC) as methane corrected to 3% oxygen when firing landfill gas. To demonstrate compliance with this requirement, CCCSD shall perform a pre-approved source test within 60 days of July 1, 2002. During the source test, CCCSD shall continuously monitor and record combustion temperature. Upon source test completion and successful demonstration of compliance with abatement efficiency standard, District staff shall revise the permit condition as an administrative permit amendment to incorporate the specific minimum temperature setpoint. (Basis: BAAQMD Regulation 8-34-301.4)~~

15 During the start-up of S-188, this source shall be granted a start-up grace period during which S-188 need not meet the emission limit indicated in part 2, above. All other conditions imposed on S-188 shall remain in effect and enforceable. This start-up grace period shall begin once fuel is first combusted at S-188 and shall end not more than three hours later. During subsequent additional start-ups of S-188 within a single 24 consecutive hour period, there shall be no start-up grace period and all conditions imposed on S-188 shall be in effect and enforceable. Each start-up shall be recorded in a District-approved log which shall be retained for at least five years from the date of last entry, be kept on site, and made available to the District upon request. (Basis: BAAQMD 9-9-114)

16. During the shutdown of S-188, this source shall be granted a shutdown grace period during which S-188 need not meet the emission limit indicated in part 2, above. All other conditions imposed on S-188 shall remain in effect and enforceable. This shutdown grace period shall be defined as the last hour of operation of S-188 preceding the time that all fuel combustion at S-188 has ceased. Not more than one such grace period may occur in any 24 consecutive hour period. During additional shutdowns

of S-188 within a single 24 consecutive hour period, there shall be no shutdown grace period and all conditions imposed on S-188 shall remain in effect and enforceable. Each shutdown shall be recorded in a District-approved log which shall be retained for at least five years from date of last entry, be kept on site, and made available to the District upon request. (Basis: BAAQMD 9-9-114)

9. RECOMMENDATIONS

Issue revised Title V MFR Permit to Central Contra Costa Sanitary District subject to the following condition changes, with the new conditions listed following Table 2.

Table 2 Condition Number(s) History/Changes

Source	Existing Condition Number	New Condition Number
S-7, S-8 Auxiliary Boilers	16562	21422
S-9, S-10 Furnaces (Sewage Sludge Incinerators)	16563	21423
S-182 Ash Conveying System	7055	21425
S-188 Cogeneration Turbine	13271	21485

New Condition #21422 [replacement for Condition 16562]

For S-7 Auxiliary Steam Boiler 1 and S-8 Auxiliary Steam Boiler 2; Both Boilers Specified as Follows: Cleaver Brooks ME74139, Maximum Firing Capacity: 28 MM Btu/hr with High Turn Down Multi-fuel Burners and Cleaver Brooks induced Flue Gas Recirculation System.

1. S-7 Boiler and S-8 Boiler shall be fired at a rate not to exceed 28 MM Btu/hr per boiler. (Basis: Cumulative Increase)

2. Exhaust gas emissions shall not exceed 300 ppm, dry SO2. The Permit Holder shall use the sulfur content of the fuels in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentration. The Permit Holder shall calculate and record the resulting sulfur dioxide concentration at least 1 time every calendar quarter.
(Basis: BAAQMD 9-1-302)

   The Permit Holder shall monitor and record the sulfur content of the landfill gas at a frequency of at least one time every calendar month when burning landfill gas.
(Basis: BAAQMD 1-441)

3. Emissions of nitrogen oxides (NOx) shall not exceed 30 ppmv (@ 3 percent O2, dry) when firing gaseous fuels.
(Basis: BAAQMD 9-7-301.1)

4. Emissions of nitrogen oxides (NOx) shall not exceed 40 ppmv (@ 3 percent O2, dry)

when firing distillate oil.
(Basis: BAAQMD 9-7-302.1)

5. Emissions of carbon monoxide (CO) shall not exceed 400 ppmv @ 3 percent O2, dry.
(Basis: BAAQMD 9-7-301.2, 9-7-302.2)

6. The distillate oil sulfur content shall not exceed 0.5 percent by weight.
(Basis: Cumulative Increase)

7. To demonstrate ongoing compliance with parts 3, 4, and 5 above, the Permit Holder shall perform a compliance source test at a frequency of at least 1 time every 60 months after the initial source test. Compliance source tests shall be conducted in accordance with District Manual of Procedures (MOP). Source test results shall be kept onsite and made available to District staff upon request.
(Basis: Cumulative Increase)

8. While burning landfill gas, NMOC emissions shall be abated by at least 98% by weight across S-7 and S-8 auxiliary boiler(s), or the exhaust emissions of NMOC shall be less than 120 ppm by volume, dry basis, expressed as methane, corrected to 3% oxygen.
(Basis: BAAQMD 8-34-301.4)

To demonstrate ongoing compliance with this requirement the Permit Holder shall perform a pre-approved annual source test in accordance with the District Manual of Procedures. The annual source test shall be conducted not less than 9 months nor greater than 12 months after the most recent compliance source test.
(Basis: 8-34-412)

To ensure ongoing compliance with the above NMOC destruction efficiency, the Permit Holder shall maintain the rolling 3 clock-hour average first pass boiler temperature of S-7 and S-8 at 770 degrees or greater when burning landfill gas. While burning landfill gas, the Permit Holder shall continuously monitor the first pass temperatures of S-7 and S-8 and shall calculate and record the rolling 3 clock-hour average temperatures in a District-approved log.
(Basis: 40 CFR 50.758(c)(1)(i))

If a source test demonstrates compliance with with all applicable requirements at a different minimum first pass temperature, the APCO may revise the above temperature limit, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 based on the following criteria. The minimum first pass temperature for S-7 and S-8 shall be equal to the average first pass temperature measured during a complying source test (NMHC and CO emission limits were met) minus 50 degrees F. (Basis: 40 CFR 60.758(c)(1)(i)

9. The Permit Holder shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including the following information:

   a. Monthly records of the quantity of gaseous fuel (therms) and distillate oil (gal) burned at this source.

   b. Monthly records of the distillate oil sulfur content certification.

   c. Monthly records shall be totaled for each consecutive 12-month period.

   d. Records of the rolling 3 clock-hour average first pass boiler temperatures.

   e. All records shall be retained onsite for five years from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase, Reg 9-1-304)

New Condition #21423 [replacement for Condition 16563]

For S-9 Furnace 1 and S-10 Furnace 2, Sewage Sludge Incinerator, BSP Multiple Rotary Hearth, 27 MM Btu/hr Max Heat Input.

1. Solid fuel shall be solids derived from CCCSD sewage operations only.

(Basis: Cumulative Increase)

2. S-9 and S-10 combined solid fuel throughput shall not exceed 110 ton/day and 20,000 ton in any consecutive 12 month period. (Basis: Cumulative Increase)

3. Particulate emissions shall not exceed 0.65 gram per kilogram of dry sludge input (1.3 lb/ton dry sludge input). (Basis: 40 CFR 60.152(a)(1), NSPS)

4. Particulate emissions shall not exceed 343 mg/dscm (0.15 grain per dscf) of exhaust gas volume. The actual measured concentration of particulate matter in the exhaust gas shall be corrected to the concentration which the same quantity of particulate matter would constitute in the exhaust gas minus water vapor corrected to standard conditions, containing 12% CO2 by volume, and as if no auxiliary fuel had been used. (Basis: SIP 6-310)

5. Visible emissions shall not exceed 20 percent opacity as detected by an opacity sensing device for a period or periods aggregating more than three minutes in any hour. To comply with this part the Permit Holder shall install and maintain a District-approved opacity sensing continuous emission monitor (CEM). (Basis: SIP 6-401, 40 CFR 60.152(a)(2))

6. Total combined beryllium emissions from S-9 and S-10 are not to exceed 10 grams in any 24 hr period. Unless a waiver is obtained by the APCO (according to 40 CFR 60.13) the Permit Holder is to demonstrate compliance according to EPA Method 104 of Appendix B of 40 CFR 61.33. (Basis: BAAQMD 11-3-301)

7. Total combined mercury emissions from S-9 and S-10 are not to exceed 3200 gram per 24 hour period. Compliance with this section may be demonstrated by performing an EPA Method 105 (Mercury in Wastewater Treatment Plant Sewage Sludge) test or an equivalent test as pre-approved by the APCO. (Basis: BAAQMD 11-5-302, 40 CFR 61.52)

8. If mercury emissions exceed 1600 gram per 24 hour period, the Permit Holder shall monitor mercury emissions at a frequency of at least once every 12 months. (Basis: 40 CFR 61.55(a))

9. Lead emissions are not to exceed 15 lb/day per incinerator (Basis: BAAQMD 11-1).

10. To demonstrate compliance with parts 4 through 9, above, an initial source tests shall be conducted within 180 days of permit approval, and ongoing source tests at a frequency of at least once every 60 months. Source test protocols shall be prepared and pre-approved by the APCO prior to performing any source tests. Note: source tests performed prior to issuance of the Title V permit may be used to demonstrate initial compliance as long as appropriate sampling and analysis methods were used and approved by the APCO. Source tests to demonstrate compliance with 40 CFR part 503 may also be used to demonstrate compliance as long as appropriate sampling and analysis methods were used and approved by the APCO. Source test results shall be submitted to the APCO within 60 days of analytical completion.
(Basis: BAAQMD 2-6-501)

    a. Sewage Sludge sampling: Sewage sludge sampling shall be performed as noted in part 13(f) below. The Permit Holder shall use Method 209F to determine dry sludge content, Method 104 for beryllium, Method 12 for lead, and Method 105 for mercury. (Basis: 40 CFR 60.154)

    b. Exhaust particulate testing: Three composite exhaust samples shall be collected according to EPA Method 5 and analyzed for particulate mass. (Basis: 40 CFR 60.154 (d)(3))

    c. Exhaust metals testing: Three composite exhaust samples shall be collected according to EPA Method 5. Two of the samples shall be analyzed by neutron activation for arsenic, cadmium, chromium, copper, nickel, selenium and zinc; and one sample shall be analyzed according to Method 104 (or Method 103) and Method

12, respectively, for beryllium and lead. (Basis: 40 CFR 60.154(d)(3)(i))

11. Ongoing Emissions - Sulfur Dioxide: Exhaust gas emissions shall not exceed 300 ppm, dry SO2. (Basis: BAAQMD 9-1-304)

    To demonstrate compliance with this requirement the Permit Holder shall perform a District-approved source test at a frequency of at least one time every calendar year. Source tests shall be conducted using BAAQMD Method ST-19A (or an approved equivalent method) according to a pre-approved source test protocol. Results shall be submitted to the APCO within 60 days of analytical completion. (Basis: BAAQMD 9-1-304)

12. NMOC emissions shall be abated by at least 98% by weight across S-9 and S-10 or the concentration shall be less than 120 ppmv, dry NMOC, expressed as methane corrected to 3% oxygen when firing landfill gas. To demonstrate compliance with this requirement, the Permit Holder shall perform a pre-approved initial source test within 60 days of July 1, 2002 and ongoing source tests at a frequency of not less than 9 months nor greater than 12 months after the most recent compliance source test. Source test protocols shall be prepared and pre-approved by the APCO prior to performing any source tests. (Basis: BAAQMD 8-34-301.4)

    To ensure ongoing compliance with the above NMOC abatement or emission standard, the Permit Holder shall maintain the rolling 3 clock-hour average temperature of hearth 1 at 1,000 degrees F or greater. The Permit Holder shall calculate and record the rolling 3 clock-hour average temperatures. (Basis: 40 CFR 60.158(c)(1)(i)

    If a source test demonstrates compliance with all applicable requirements at a different minimum hearth 1 temperature, the APCO may revise the above temperature limit, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 based on the following criteria. The minimum hearth 1 temperature for S-9 and S-10 shall be equal to the average hearth 1 temperature measured during a complying source test (NMHC emission limit was met) minus 50 degrees F.

(Basis: 40 CFR 60.758(c)(1)(i)

13. Ongoing Monitoring: To demonstrate compliance with the above parts and as required by the New Source Performance Standard (NSPS) for sewage treatment plants the Permit Holder shall:

    a. Install, calibrate, maintain and operate a flow measuring device, which can be used to determine either the mass or volume of sludge charged to the incinerator. The sludge flow measurement device shall be certified by the manufacturer to have an accuracy of + 5% over its operating range. The flow measurement device shall be operated continuously and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(a)(1)

    b. Install, calibrate, maintain and operate a monitoring device that continuously measures and records the pressure drop of the gas flow through the wet scrubber. Where a combination of wet scrubbers is used in series, the pressure drop of the gas flow through the combined system shall be continuously monitored. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within + 1 in water gauge and shall be calibrated on an annual basis in accordance with manufacturer's instructions. (Basis: 40 CFR 60.153(b)(1))

    c. Install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gases. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet in the incinerator exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of + 5 percent over its operating range and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period. (Basis: 40 CFR 60.153(b)(2))

d. Install, calibrate, maintain and operate temperature measuring devices at every hearth in multiple hearth furnaces. A minimum of one thermocouple shall be installed in each hearth in the cooling and drying zones, and a minimum of two thermocouples shall be installed in each hearth in the combustion zone. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of + 5 percent over its operating range. The temperature monitoring devices shall be operated continuously and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(b)(3))

e. Install, calibrate, maintain and operate a device for measuring the fuel flow to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of + 5 percent over its operating range. The fuel flow device(s) shall be operated continuous and data recorded during all periods of operation of the incinerator. (Basis: 40 CFR 60.153(b)(4))

f. Collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content shall be determined in accordance with the method specified in 40 CFR 60.154 c (2). (Basis: 40 CFR 60.153(b)(5))

g. In order to demonstrate compliance with part 2, above, the Permit Holder shall maintain daily records of total solid fuel throughput (ton/day) to S-9 and S-10 sewage sludge incinerators. (Basis: Cumulative Increase)

h. All records shall be retained onsite for a period of at least 5 years and made available to the APCO upon request. (Basis: Cumulative Increase)

14. Reporting: As required by the New Source Performance Standard (NSPS) and NESHAPs for Beryllium and Mercury, the Permit Holder

shall submit to the Administrator and the District semi-annually a report in writing which contains the following: (Basis: 40 CFR 60.155)

a. A record of average wet scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than the following limits: (Basis: 40 CFR 60.155(a)(1))

   1. S-9 (Furnace 1) Wet Scrubber A-2: 5.9 inches water column.

   2. S-10 (Furnace 2) Wet Scrubber A-4: 4.7 inches water column.

b. A record of average oxygen content in the incinerator exhaust gas (prior to dilution) for each period of 1-hour duration or more that the oxygen content exceeds 10 percent. (Basis: 40 CFR 60.155(a)(2))

c. Any recent reports as appropriate or as requested by the APCO. (Basis: 40 CFR 60.155(a)(3), (4), (5), (6))

New Condition #21425 [replacement for Condition 7055]

For S-182, Ash Conveying System

1. All particulate emissions at S-182 shall be abated by either Baghouse A-186, Baghouse A-196, or Cyclone A-191/Baghouse A-192. (Basis: Cumulative Increase)

2. A-186 Baghouse Filters, A-196 Baghouse filters, and A-191 Cyclone/A-192 Baghouse system shall all be properly maintained and kept in good working order. (Basis: Cumulative Increase)

3. A-186 Baghouse Filters, A-196 Baghouse filters, and A-191 Cyclone/A-192 Baghouse system shall all be operated according to and within manufacturer's operating specifications. (Basis: Cumulative Increase)

4. Particulate emissions control systems A-186 Baghouse Filters, A-196 Baghouse Filters, and A-191 Cyclone/A-192 Baghouse System shall be monitored continuously for particulate emissions by the use of a Mikro-Charge LeakGauge or equivalent instrument with a setpoint to detect particulate emissions and activate an operator alarm. In the event of an alarm indicating a filter system leak, the Permit Holder shall take all corrective action necessary to minimize emissions and to make the needed repairs. The Mikro-Charge LeakGauge system shall be properly maintained and operated as per Manufacturer recommendations. (Basis: BAAQMD 2-6-503)

5. The exhaust stacks from particulate emissions abatement system A-186, A-196, and A-191/A-192 shall be visually checked and the observation recorded in a District-approved log at a frequency of at least one time during daylight hours either by using the remote control rooftop video camera or by a personal rooftop inspection of the exhaust stacks by the plant operator. An observation of a visible emissions would constitute an abatement system leak, requiring immediate action to minimize further leakage and to make the necessary repairs. (Basis: BAAQMD 2-6-501)

6. The Permit Holder shall keep records of all Mikro-Charge LeakGauge alarm events, visible emissions checks including the operator performing the check, and all maintenance performed on A-186 Baghouse Filters, A-196 Baghouse Filters, A-191 Cyclone/A-192 Baghouse System, and the Mikro-Charge LeakGauge Instrument system. The records shall be retained for five (5) years and shall be made available to District personnel upon request. (Basis: 2-6-501)

New Condition #21485 [replacement for Condition 13271]

For S-188 Natural Gas Fired Turbine Generator with HRSG; Solar Model Centaur T-4700, 3500 KW, Maximum Firing Capacity 46 MMBtu/hr (LHV) and 49.5 MMBtu/hr (HHV).

1. S-188 Fuel and Capacity

a. S-188 shall be fired only on natural gas.

(Basis: Cumulative Increase)

b. The firing rate of S-188 shall not exceed 1188 MMBtu/day (HHV). (Basis: Cumulative Increase)

c. All natural gas burned at S-188 shall be PUC quality gas. (Basis: Reg 2-1-403)

2. NOx emissions from S-188 shall not exceed 42 ppmv, dry, at 15 percent oxygen based on a three clock hour average. (Basis: Reg 9-9-301.1)

3. NOx emissions from S-188 shall not exceed 154 ppmv, dry, at 15% oxygen based on a clock-hour average. (Basis: 40 CFR 60.332)

4. NOx emissions from S-188 shall not exceed 118 pounds in any rolling consecutive 24 hour period. (Basis: Cumulative Increase)

5. NOx emissions from S-188 shall not exceed 19.824 tons in any rolling 365 consecutive day period. (Basis: Cumulative Increase)

6. CO emissions from S-188 shall not exceed 157 pounds each rolling consecutive 24 hour period. (Basis: Cumulative Increase)

7. CO emissions from S-188 shall not exceed 26.376 tons in any rolling 365 consecutive day period. (Basis: Cumulative Increase)

8. Exhaust gas emissions shall not exceed 150 ppm SO2, dry, at 15% O2. The Permit Holder shall use the sulfur content of the gaseous fuel in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentration. The Permit Holder shall calculate and record the Sulfur dioxide concentration at least 1 time every calendar quarter. (Basis: 40 CFR Part 60 Subpart GG)

9. To demonstrate compliance with conditions 6 and 7 above, the Permit Holder shall perform a compliance source test at a frequency of at least 1 time every 60 months after the most recent source test. Source test results shall be kept onsite and made available to the BAAQMD staff upon request. (Basis: Cumulative Increase)

10. The stack at S-188 shall be equipped with BAAQMD approved source testing ports to allow for the suitable sampling and testing of process flue gas

emissions from S-188. (Basis: Cumulative Increase)

11. The permittee shall operate a BAAQMD approved emission monitoring and recording system for S-188 to continuously assure compliance with conditions 2, 4, and 5, above. Recording made to comply with this condition shall be retained for at least five years from date of last entry. This log shall be kept on-site and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase, Reg 2-6-501)

12. The daily usage of natural gas at S-188, as measured at a BAAQMD approved fuel meter dedicated solely to this source, shall be recorded daily in cubic feet (or thousands of cubic feet) in a BAAQMD approved log. This log shall be retained for at least five years from date of last entry. This log shall be kept on-site and made available to the BAAQMD staff upon request.
(Basis: Cumulative Increase, Reg 2-6-501)

13. In order to show compliance with parts 1b and 3, the permittee shall operate a USEPA approved fuel flow monitor and water injection flow monitor and calculate the water-to-fuel ratio on a clock-hour basis and the heat input on a daily basis.
(Basis 40 CFR 60.334(c)(1))

14. Exhaust gas emissions shall not exceed 300 ppmv SO2, dry basis. The Permit Holder shall use the sulfur content of the fuel in conjunction with a material balance to calculate the exhaust gas sulfur dioxide concentration. (Basis: Reg 9-1-302)

15. During the start-up of S-188, this source shall be granted a start-up grace period during which S-188 need not meet the emission limit indicated in part 2, above. All other conditions imposed on S-188 shall remain in effect and enforceable. This start-up grace period shall begin once fuel is combusted at S-188 and shall end not more than three hours later. During subsequent additional start-ups of S-188 within a single 24 consecutive hour period, there shall be no start-up grace period and all conditions imposed on S-188 shall be in effect and enforceable. Each start-up shall be recorded in a District-approved log which shall be retained for at least five years from the date of last entry, be kept on site, and made available to the District upon request. (Basis: BAAQMD 9-9-114)

16. During the shutdown of S-188, this source shall be granted a shutdown grace period during which S-188 need not meet the emission limit indicated in part 2, above. All other conditions imposed on S-188 shall remain in effect and enforceable. This shutdown grace period shall be defined as the last hour of operation of S-188 preceding the time that all fuel combustion at S-188 has ceased. Not more than one such grace period may occur in any 24 consecutive hour period. During additional shutdowns of S-188 within a single 24 consecutive hour period, there shall be no shutdown grace period and all conditions imposed on S-188 shall remain in effect and enforceable. Each shutdown shall be recorded in a District-approved log which shall be retained for at least five years from the date of last entry, be kept on site, and made available to the District upon request. (Basis: BAAQMD 9-9-114)

by: _____
Randy E. Frazier, P.E.
11 August 2004