



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

November 19, 2010

Mr. Doug Corcoran
Director of Operations
Bradley Landfill
9227 Tujunga Avenue
Sun Valley, CA 91352

received
11-22-10 AG

SUBJECT: Bradley Landfill
Title V Facility Permit Revision #1 (Facility ID 50310)

Dear Mr. Corcoran,

Please find attached the revised Title Page, Table of Contents and Section H of your Title V Facility Permit. The revised sections reflect the approval of a Minor revision of the Title V Permit. The South Coast Air Quality Management District (AQMD) issued a draft permit for Environmental Protection Agency (EPA) review on October 20, 2010 and no comments were received from the EPA. No public notice was required for a Minor revision. Changes to your Title V permit are as follows:

SECTION H, PERMIT TO CONSTRUCT

Appl. No.	Description
510975	Changed equipment description to add a 2500 scfm compressor (common to A/N's 510975 thru 510979) and revise the five individual existing 600 scfm compressors to standby. Updated emission limits to reflect current Rule 1110.2 for VOC and NOx in condition No. 15 for all five engines.
510976	
510977	
510978	
510979	

Please review the attached pages and then insert the enclosed sections into your Title V Facility Permit and discard the earlier versions. If you have any questions concerning changes to your permit, or if you determine any administrative error, please contact Ted Kowalczyk at (909) 396-2592 within 30 days of the receipt of your permit.

Sincerely,

Jay Chen, P.E.
Sr. Air Quality Engineering Manager
Refinery and Waste Management-Permitting

JC:CDT:TK
Attachments

cc: Gerardo Rios, EPA Region IX
Compliance
TV Master file
Application No. 502962
w/enclosure



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

Title Page
Facility ID: 050310
Revision #: 1
Date: November 19, 2010

FACILITY PERMIT TO OPERATE

**WASTE MGMT DISP & RECY SERVS INC (BRADLEY)
9227 TUJUNGA AVE
SUN VALLEY, CA 91352**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By 
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

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B	RECLAIM Annual Emission Allocation	0	03/27/2007
C	Facility Plot Plan	TO BE DEVELOPED	
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E	Administrative Conditions	0	03/27/2007
F	RECLAIM Monitoring and Source Testing Requirements	0	03/27/2007
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	0	03/27/2007
H	Permit To Construct and Temporary Permit to Operate	1	11/19/2010
I	Compliance Plans & Schedules	0	03/27/2007
J	Air Toxics	0	03/27/2007
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AQMD

**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

This section consists of a table listing all equipment with Permits to Construct and copies of all individual Permits to Construct issued to various equipment at the facility. Each permit will list operating conditions including periodic monitoring requirements, and applicable emission limits and requirements that the equipment is subject to. Also included is the rule origin and authority of each emission limit and permit condition.



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

PERMITTED EQUIPMENT LIST

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AT THIS FACILITY:

Application number	Equipment description	Page
510975	ICE (>500 HP) LANDFILL GAS	3
510976	ICE (>500 HP) LANDFILL GAS	6
510977	ICE (>500 HP) LANDFILL GAS	9
510978	ICE (>500 HP) LANDFILL GAS	12
510979	ICE (>500 HP) LANDFILL GAS	15

NOTE: APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

PERMIT TO CONSTRUCT

**Granted as of 11/17/2010
A/N 510975**

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 1 CONSISTING OF:

1. INTERNAL COMBUSTION ENGINE NO. 1, DEUTZ, MODEL TBG620V16K, SIXTEEN CYLINDER, 1877 BHP, LEAN BURN, LANDFILL GAS FIRED, TURBOCHARGED AND INTERCOOLED, DRIVING A 1.3 MW ELECTRICAL GENERATOR.
2. COMPRESSOR, 2500 CFM, 238 HP (COMMON TO A/N 510975, 510976, 510977, 510978 AND 510979)
3. COMPRESSOR, STANDBY, 600 SCFM
4. RADIATOR WITH FANS
5. ANCILLARY SKID WITH A MUFFLER, HEAT EXCHANGER, FILTER, INTERCOOLER AND EXHAUST STACK.
6. AIR/FUEL RATIO CONTROLLER, DEUTZ/MWM. MODEL-EVOLUTION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE EMISSION OF RAW LANDFILL GAS TO THE ATMOSPHERE.
[RULE 1150.1]
4. A SAMPLING PORT SHALL BE INSTALLED IN THE LANDFILL GAS LINE TO THE ENGINE TO ALLOW THE COLLECTION OF A GAS SAMPLE.
[RULE 217, 431.1, 1150.1]
5. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE ENGINE.
[RULE 1110.2, 1303(b)(2)-OFFSET]



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

6. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1110.2.
[RULE 1110.2]
7. THE HEATING VALUE OF LANDFILL GAS TO THE ENGINE SHALL NOT EXCEED 16.8 MM BTU PER HOUR. A HOURLY LOG OF THE LANDFILL GAS HEATING VALUE, BASED ON THE RECORDED FLOW RATE (SCFM), SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]
8. READINGS OF THE HEATING VALUE (BTU/HR) OF THE LANDFILL GAS AT THE INLET TO THE ENGINE SHALL BE TAKEN HOURLY WITH AN AQMD APPROVED INSTRUMENT AND THE RESULTS RECORDED.
[RULE 1303(b)(2)-OFFSET]
9. THE ENGINE SHALL ONLY USE LANDFILL GAS AS A FUEL.
[RULE 204]
10. TWO SAMPLING PORTS SHALL BE PROVIDED IN THE ENGINE EXHAUST DUCT, 8-10 DUCT DIAMETERS DOWNSTREAM AND TWO DUCT DIAMETERS UPSTREAM OF ANY FLOW DISTURBANCE, AND SHALL CONSIST OF TWO 4 INCH WELD NIPPLES WITH PLUGS, 90 DEGREES APART. AN EQUIVALENT METHOD FOR EMISSION SAMPLING MAY BE USED UPON APPROVAL OF THE AQMD. ADEQUATE AND SAFE ACCESS TO THE TEST PORTS SHALL BE SUPPLIED BY THE APPLICANT.
[RULE 217]
11. THE EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING:

AIR CONTAMINANT	LBS/HR
NON-METHANE HYDROCARBONS	1.65
NITROGEN OXIDE	2.48
SULFUR DIOXIDE	0.82
CARBON MONOXIDE	9.92
PARTICULATES	0.21

[RULE 1303(b)(2)-OFFSET]
12. A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND OPERATED TO MEASURE THE ENGINE EXHAUST CONCENTRATION FOR NOX AND O2 ON A DRY BASIS. IN ADDITION, THE SYSTEM SHALL CONVERT THE ACTUAL NOX CONCENTRATION TO A CORRECTED NOX CONCENTRATION AT 15% O2. THIS MONITORING SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF AQMD RULE 218. PRIOR TO INSTALLATION, THIS MONITORING SYSTEM SHALL BE APPROVED IN WRITING BY THE AQMD. AN ALTERNATIVE OR PREDICTIVE MONITORING SYSTEM (PEMS), IF USED, SHALL BE SUBMITTED CONCURRENTLY WITH THE AFOREMENTIONED CEMS.
[RULE 218]
13. ALL RECORDS, SUCH AS FUEL USAGE, MAINTENANCE RECORDS AND PERFORMANCE TEST RESULTS, SHALL BE MAINTAINED FOR FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

[RULE 1150.1, 1303(b)(2)-OFFSET]

14. THIS ENGINE SHALL NOT BE OPERATED IN SUCH A MANNER AS TO UNREASONABLY INTERFERE WITH THE OWNER'S/OPERATOR'S ABILITY TO COMPLY WITH AQMD RULE 1150.1 OR ANY OTHER AQMD RULE LIMITING LANDFILL GAS MIGRATION OR SURFACE EMISSIONS.
[RULE 1150.1]
15. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF 40CFR PART 63, SUBPART ZZZZ – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES.
16. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NMOC (REPORTED AS HEXANE) CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 3% OXYGEN ON DRY BASIS AND FOR NMOC REDUCTION EFFICIENCY (BY WEIGHT) AT LEAST ONCE EVERY YEAR.
[RULE 1150.1].
17. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NO_x, VOC (REPORTED AS METHANE) AND CO CONCENTRATIONS (CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 15% OXYGEN ON DRY BASIS) AT LEAST ONCE EVERY TWO YEARS, OR 8760 OPERATING HRS, WHICHEVER OCCURS FIRST.
[RULE 1110.2 (f)(1)(D)].

Emissions and Requirements:

18. NMOC: 20 PPMV AS HEXANE @3% O₂ OR 98 WEIGHT PERCENT REDUCTION, RULE 1150.1,
40 CFR 63 SUBPART AAAAA
NMOC: 0.8 GR/BHP-HR, RULE 1303(a)(1)-BACT
NMOC: 40 PPM AS METHANE @15% O₂, RULE 1110.2
CO: 2000 PPMV, RULE 1110.2
CO: 2.5 GR/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
NO_x: 36 PPMV @ 15%O₂, RULE 1110.2
NO_x: 0.6 GR/BHP-HR, RULE 1303(a)(1)-BACT

Periodic Monitoring:

NONE



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

PERMIT TO CONSTRUCT

Granted as of 11/17/2010
A/N 510976

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 2 CONSISTING OF:

1. INTERNAL COMBUSTION ENGINE NO. 2, DEUTZ, MODEL TBG620V16K, SIXTEEN CYLINDER, 1877 BHP, LEAN BURN, LANDFILL GAS FIRED, TURBOCHARGED AND INTERCOOLED, DRIVING A 1.3 MW ELECTRICAL GENERATOR.
2. COMPRESSOR, 2500 CFM, 238 HP (COMMON TO A/N 510975, 510976, 510977, 510978 AND 510979)
3. COMPRESSOR, STANDBY, 600 SCFM
4. RADIATOR WITH FANS
5. ANCILLARY SKID WITH A MUFFLER, HEAT EXCHANGER, FILTER, INTERCOOLER AND EXHAUST STACK.
6. AIR/FUEL RATIO CONTROLLER, DEUTZ/MWM. MODEL-EVOLUTION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE EMISSION OF RAW LANDFILL GAS TO THE ATMOSPHERE.
[RULE 1150.1]
4. A SAMPLING PORT SHALL BE INSTALLED IN THE LANDFILL GAS LINE TO THE ENGINE TO ALLOW THE COLLECTION OF A GAS SAMPLE.
[RULE 217, 431.1, 1150.1]
5. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE ENGINE.
[RULE 1110.2, 1303(b)(2)-OFFSET]



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

- 6. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1110.2.
[RULE 1110.2]
- 7. THE HEATING VALUE OF LANDFILL GAS TO THE ENGINE SHALL NOT EXCEED 16.7 MM BTU PER HOUR. A HOURLY LOG OF THE LANDFILL GAS HEATING VALUE, BASED ON THE RECORDED FLOW RATE (SCFM), SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]
- 8. READINGS OF THE HEATING VALUE (BTU/HR) OF THE LANDFILL GAS AT THE INLET TO THE ENGINE SHALL BE TAKEN HOURLY WITH AN AQMD APPROVED INSTRUMENT AND THE RESULTS RECORDED.
[RULE 1303(b)(2)-OFFSET]
- 9. THE ENGINE SHALL ONLY USE LANDFILL GAS AS A FUEL.
[RULE 204]
- 10. TWO SAMPLING PORTS SHALL BE PROVIDED IN THE ENGINE EXHAUST DUCT, 8-10 DUCT DIAMETERS DOWNSTREAM AND TWO DUCT DIAMETERS UPSTREAM OF ANY FLOW DISTURBANCE, AND SHALL CONSIST OF TWO 4 INCH WELD NIPPLES WITH PLUGS, 90 DEGREES APART. AN EQUIVALENT METHOD FOR EMISSION SAMPLING MAY BE USED UPON APPROVAL OF THE AQMD. ADEQUATE AND SAFE ACCESS TO THE TEST PORTS SHALL BE SUPPLIED BY THE APPLICANT.
[RULE 217]

11. THE EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING:

AIR CONTAMINANT	LBS/HR
NON-METHANE HYDROCARBONS	1.65
NITROGEN OXIDE	2.48
SULFUR DIOXIDE	0.82
CARBON MONOXIDE	9.92
PARTICULATES	0.21

[RULE 1303(b)(2)-OFFSET]

- 12. A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND OPERATED TO MEASURE THE ENGINE EXHAUST CONCENTRATION FOR NOX AND O2 ON A DRY BASIS. IN ADDITION, THE SYSTEM SHALL CONVERT THE ACTUAL NOX CONCENTRATION TO A CORRECTED NOX CONCENTRATION AT 15% O2. THIS MONITORING SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF AQMD RULE 218. PRIOR TO INSTALLATION, THIS MONITORING SYSTEM SHALL BE APPROVED IN WRITING BY THE AQMD. AN ALTERNATIVE OR PREDICTIVE MONITORING SYSTEM (PEMS), IF USED, SHALL BE SUBMITTED CONCURRENTLY WITH THE AFOREMENTIONED CEMS.
[RULE 218]
- 13. ALL RECORDS, SUCH AS FUEL USAGE, MAINTENANCE RECORDS AND PERFORMANCE TEST RESULTS, SHALL BE MAINTAINED FOR FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

[RULE 1150.1, 1303(b)(2)-OFFSET]

14. THIS ENGINE SHALL NOT BE OPERATED IN SUCH A MANNER AS TO UNREASONABLY INTERFERE WITH THE OWNER'S/OPERATOR'S ABILITY TO COMPLY WITH AQMD RULE 1150.1 OR ANY OTHER AQMD RULE LIMITING LANDFILL GAS MIGRATION OR SURFACE EMISSIONS.
[RULE 1150.1]
15. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF 40CFR PART 63, SUBPART ZZZZ – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES.
16. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NMOC (REPORTED AS HEXANE) CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 3% OXYGEN ON DRY BASIS AND FOR NMOC REDUCTION EFFICIENCY (BY WEIGHT) AT LEAST ONCE EVERY YEAR.
[RULE 1150.1].
17. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NO_x, VOC (REPORTED AS METHANE) AND CO CONCENTRATIONS (CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 15% OXYGEN ON DRY BASIS) AT LEAST ONCE EVERY TWO YEARS, OR 8760 OPERATING HOURS, WHICHEVER OCCURS FIRST..
[RULE 1110.2 (f)(1)(D)].

Emissions and Requirements:

18. NMOC: 20 PPMV AS HEXANE @3% O₂ OR 98 WEIGHT PERCENT REDUCTION, RULE 1150.1,
40 CFR 63 SUBPART AAAA
NMOC: 0.8 GR/BHP-HR, RULE 1303(a)(1)-BACT
NMOC: 40 PPM AS METHANE @15% O₂, RULE 1110.2
CO: 2000 PPMV, RULE 1110.2
CO: 2.5 GR/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
NO_x: 36 PPMV @ 15%O₂, RULE 1110.2
NO_x: 0.6 GR/BHP-HR, RULE 1303(a)(1)-BACT

Periodic Monitoring:

NONE



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

PERMIT TO CONSTRUCT

Granted as of 11/17/2010
A/N 510977

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 3 CONSISTING OF:

1. INTERNAL COMBUSTION ENGINE NO. 3, DEUTZ, MODEL TBG620V16K, SIXTEEN CYLINDER, 1877 BHP, LEAN BURN, LANDFILL GAS FIRED, TURBOCHARGED AND INTERCOOLED, DRIVING A 1.3 MW ELECTRICAL GENERATOR.
2. COMPRESSOR, 2500 CFM, 238 HP (COMMON TO A/N 510975, 510976, 510977, 510978 AND 510979)
3. COMPRESSOR, STANDBY, 600 SCFM
4. RADIATOR WITH FANS
5. ANCILLARY SKID WITH A MUFFLER, HEAT EXCHANGER, FILTER, INTERCOOLER AND EXHAUST STACK.
6. AIR/FUEL RATIO CONTROLLER, DEUTZ/MWM. MODEL-EVOLUTION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE EMISSION OF RAW LANDFILL GAS TO THE ATMOSPHERE.
[RULE 1150.1]
4. A SAMPLING PORT SHALL BE INSTALLED IN THE LANDFILL GAS LINE TO THE ENGINE TO ALLOW THE COLLECTION OF A GAS SAMPLE.
[RULE 217, 431.11150.1]
5. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE ENGINE.
[RULE 1110.2, 1303(b)(2)-OFFSET]



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

- 6. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1110.2.
[RULE 1110.2]
- 7. THE HEATING VALUE OF LANDFILL GAS TO THE ENGINE SHALL NOT EXCEED 16.8 MM BTU PER HOUR. A HOURLY LOG OF THE LANDFILL GAS HEATING VALUE, BASED ON THE RECORDED FLOW RATE (SCFM), SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]
- 8. READINGS OF THE HEATING VALUE (BTU/HR) OF THE LANDFILL GAS AT THE INLET TO THE ENGINE SHALL BE TAKEN HOURLY WITH AN AQMD APPROVED INSTRUMENT AND THE RESULTS RECORDED.
[RULE 1303(b)(2)-OFFSET]
- 9. THE ENGINE SHALL ONLY USE LANDFILL GAS AS A FUEL.
[RULE 204]
- 10. TWO SAMPLING PORTS SHALL BE PROVIDED IN THE ENGINE EXHAUST DUCT, 8-10 DUCT DIAMETERS DOWNSTREAM AND TWO DUCT DIAMETERS UPSTREAM OF ANY FLOW DISTURBANCE, AND SHALL CONSIST OF TWO 4 INCH WELD NIPPLES WITH PLUGS, 90 DEGREES APART. AN EQUIVALENT METHOD FOR EMISSION SAMPLING MAY BE USED UPON APPROVAL OF THE AQMD. ADEQUATE AND SAFE ACCESS TO THE TEST PORTS SHALL BE SUPPLIED BY THE APPLICANT.
[RULE 217]

11. THE EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING:

AIR CONTAMINANT	LBS/HR
NON-METHANE HYDROCARBONS	1.65
NITROGEN OXIDE	2.48
SULFUR DIOXIDE	0.82
CARBON MONOXIDE	9.92
PARTICULATES	0.21

[RULE 1303(b)(2)-OFFSET]

- 12. A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND OPERATED TO MEASURE THE ENGINE EXHAUST CONCENTRATION FOR NOX AND O2 ON A DRY BASIS. IN ADDITION, THE SYSTEM SHALL CONVERT THE ACTUAL NOX CONCENTRATION TO A CORRECTED NOX CONCENTRATION AT 15% O2. THIS MONITORING SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF AQMD RULE 218. PRIOR TO INSTALLATION, THIS MONITORING SYSTEM SHALL BE APPROVED IN WRITING BY THE AQMD. AN ALTERNATIVE OR PREDICTIVE MONITORING SYSTEM (PEMS), IF USED, SHALL BE SUBMITTED CONCURRENTLY WITH THE AFOREMENTIONED CEMS.
[RULE 218]
- 13. ALL RECORDS, SUCH AS FUEL USAGE, MAINTENANCE RECORDS AND PERFORMANCE TEST RESULTS, SHALL BE MAINTAINED FOR FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERVS INC (BRADLEY)**

[RULE 1150.1, 1303(b)(2)-OFFSET]

14. THIS ENGINE SHALL NOT BE OPERATED IN SUCH A MANNER AS TO UNREASONABLY INTERFERE WITH THE OWNER'S/OPERATOR'S ABILITY TO COMPLY WITH AQMD RULE 1150.1 OR ANY OTHER AQMD RULE LIMITING LANDFILL GAS MIGRATION OR SURFACE EMISSIONS.
[RULE 1150.1]
15. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF 40CFR PART 63, SUBPART ZZZZ – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES.
16. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NMOC (REPORTED AS HEXANE) CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 3% OXYGEN ON DRY BASIS AND FOR NMOC REDUCTION EFFICIENCY (BY WEIGHT) AT LEAST ONCE EVERY YEAR.
[RULE 1150.1].
17. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NO_x, VOC (REPORTED AS METHANE) AND CO CONCENTRATIONS (CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 15% OXYGEN ON DRY BASIS) AT LEAST ONCE EVERY TWO YEARS, OR 8760 OPERATING HOURS, WHICHEVER OCCURS FIRST.
[RULE 1110.2 (f)(1)(D)].

Emissions and Requirements:

18. NMOC: 20 PPMV AS HEXANE @3% O₂ OR 98 WEIGHT PERCENT REDUCTION, RULE 1150.1,
40 CFR 63 SUBPART AAAA
NMOC: 0.8 GR/BHP-HR, RULE 1303(a)(1)-BACT
NMOC: 40 PPM AS METHANE @15% O₂, RULE 1110.2
CO: 2000 PPMV, RULE 1110.2
CO: 2.5 GR/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
NO_x: 36 PPMV @ 15%O₂, RULE 1110.2
NO_x: 0.6 GR/BHP-HR, RULE 1303(a)(1)-BACT

Periodic Monitoring:

NONE



**FACILITY PERMIT TO OPERATE
WASTE MGMT DISP & RECY SERV INC (BRADLEY)**

PERMIT TO CONSTRUCT

**Granted as of 11/17/10
A/N 510978**

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 4 CONSISTING OF:

1. INTERNAL COMBUSTION ENGINE NO. 4, DEUTZ, MODEL TBG620V16K, SIXTEEN CYLINDER, 1877 BHP, LEAN BURN, LANDFILL GAS FIRED, TURBOCHARGED AND INTERCOOLED, DRIVING A 1.3 MW ELECTRICAL GENERATOR.
2. COMPRESSOR, 2500 CFM, 238 HP (COMMON TO A/N 510975, 510976, 510977, 510978 AND 510979)
3. COMPRESSOR, STANDBY, 600 SCFM
4. RADIATOR WITH FANS
5. ANCILLARY SKID WITH A MUFFLER, HEAT EXCHANGER, FILTER, INTERCOOLER AND EXHAUST STACK.
6. AIR/FUEL RATIO CONTROLLER, DEUTZ/MWM. MODEL-EVOLUTION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE EMISSION OF RAW LANDFILL GAS TO THE ATMOSPHERE.
[RULE 1150.1]
4. A SAMPLING PORT SHALL BE INSTALLED IN THE LANDFILL GAS LINE TO THE ENGINE TO ALLOW THE COLLECTION OF A GAS SAMPLE.
[RULE 217, 431.1, 1150.1]
5. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE ENGINE.
[RULE 1110.2, 1303(b)(2)-OFFSET]
6. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1110.2.



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[RULE 1110.2]

- 7. THE HEATING VALUE OF LANDFILL GAS TO THE ENGINE SHALL NOT EXCEED 16.8 MM BTU PER HOUR. A HOURLY LOG OF THE LANDFILL GAS HEATING VALUE, BASED ON THE RECORDED FLOW RATE (SCFM), SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

[RULE 1303(b)(2)-OFFSET]

- 8. READINGS OF THE HEATING VALUE (BTU/HR) OF THE LANDFILL GAS AT THE INLET TO THE ENGINE SHALL BE TAKEN HOURLY WITH AN AQMD APPROVED INSTRUMENT AND THE RESULTS RECORDED.

[RULE 1303(b)(2)-OFFSET]

- 9. THE ENGINE SHALL ONLY USE LANDFILL GAS AS A FUEL.

[RULE 204]

- 10. TWO SAMPLING PORTS SHALL BE PROVIDED IN THE ENGINE EXHAUST DUCT, 8-10 DUCT DIAMETERS DOWNSTREAM AND TWO DUCT DIAMETERS UPSTREAM OF ANY FLOW DISTURBANCE, AND SHALL CONSIST OF TWO 4 INCH WELD NIPPLES WITH PLUGS, 90 DEGREES APART. AN EQUIVALENT METHOD FOR EMISSION SAMPLING MAY BE USED UPON APPROVAL OF THE AQMD. ADEQUATE AND SAFE ACCESS TO THE TEST PORTS SHALL BE SUPPLIED BY THE APPLICANT.

[RULE 217]

- 11. THE EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING:

AIR CONTAMINANT	LBS/HR
NON-METHANE HYDROCARBONS	1.65
NITROGEN OXIDE	2.48
SULFUR DIOXIDE	0.82
CARBON MONOXIDE	9.92
PARTICULATES	0.21

[RULE 1303(b)(2)-OFFSET]

- 12. A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND OPERATED TO MEASURE THE ENGINE EXHAUST CONCENTRATION FOR NOX AND O2 ON A DRY BASIS. IN ADDITION, THE SYSTEM SHALL CONVERT THE ACTUAL NOX CONCENTRATION TO A CORRECTED NOX CONCENTRATION AT 15% O2. THIS MONITORING SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF AQMD RULE 218. PRIOR TO INSTALLATION, THIS MONITORING SYSTEM SHALL BE APPROVED IN WRITING BY THE AQMD. AN ALTERNATIVE OR PREDICTIVE MONITORING SYSTEM (PEMS), IF USED, SHALL BE SUBMITTED CONCURRENTLY WITH THE AFOREMENTIONED CEMS.

[RULE 218]

- 13. ALL RECORDS, SUCH AS FUEL USAGE, MAINTENANCE RECORDS AND PERFORMANCE TEST RESULTS, SHALL BE MAINTAINED FOR FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.



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[RULE 1150.1, 1303(b)(2)-OFFSET]

14. THIS ENGINE SHALL NOT BE OPERATED IN SUCH A MANNER AS TO UNREASONABLY INTERFERE WITH THE OWNER'S/OPERATOR'S ABILITY TO COMPLY WITH AQMD RULE 1150.1 OR ANY OTHER AQMD RULE LIMITING LANDFILL GAS MIGRATION OR SURFACE EMISSIONS.
[RULE 1150.1]
15. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF 40CFR PART 63, SUBPART ZZZZ – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES.
16. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NMOC (REPORTED AS HEXANE) CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 3% OXYGEN ON DRY BASIS AND FOR NMOC REDUCTION EFFICIENCY (BY WEIGHT) AT LEAST ONCE EVERY YEAR.
[RULE 1150.1].
17. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NO_x, VOC (REPORTED AS METHANE) AND CO CONCENTRATIONS (CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 15% OXYGEN ON DRY BASIS) AT LEAST ONCE EVERY TWO YEARS, OR 8760 OPERATING HOURS, WHICHEVER OCCURS FIRST.
[RULE 1110.2 (f)(1)(D)].

Emissions and Requirements:

18. NMOC: 20 PPMV AS HEXANE @3% O₂ OR 98 WEIGHT PERCENT REDUCTION, RULE 1150.1,
40 CFR 63 SUBPART AAAA
NMOC: 0.8 GR/BHP-HR, RULE 1303(a)(1)-BACT
NMOC: 40 PPM AS METHANE @15% O₂, RULE 1110.2
CO: 2000 PPMV, RULE 1110.2
CO: 2.5 GR/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
NO_x: 36 PPMV @ 15%O₂, RULE 1110.2
NO_x: 0.6 GR/BHP-HR, RULE 1303(a)(1)-BACT

Periodic Monitoring:

NONE



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PERMIT TO CONSTRUCT

**Granted as of 11/17/ 2010
A/N 510979**

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 5 CONSISTING OF:

1. INTERNAL COMBUSTION ENGINE NO. 5, DEUTZ, MODEL TBG620V16K, SIXTEEN CYLINDER, 1877 BHP, LEAN BURN, LANDFILL GAS FIRED, TURBOCHARGED AND INTERCOOLED, DRIVING A 1.3 MW ELECTRICAL GENERATOR.
2. COMPRESSOR, 2500 CFM, 238 HP (COMMON TO A/N 510975, 510976, 510977, 510978 AND 510979)
3. COMPRESSOR, STANDBY, 600 SCFM
4. RADIATOR WITH FANS
5. ANCILLARY SKID WITH A MUFFLER, HEAT EXCHANGER, FILTER, INTERCOOLER AND EXHAUST STACK.
6. AIR/FUEL RATIO CONTROLLER, DEUTZ/MWM. MODEL-EVOLUTION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE EMISSION OF RAW LANDFILL GAS TO THE ATMOSPHERE.
[RULE 1150.1]
4. A SAMPLING PORT SHALL BE INSTALLED IN THE LANDFILL GAS LINE TO THE ENGINE TO ALLOW THE COLLECTION OF A GAS SAMPLE.
[RULE 217, 431.1, 1150.1]
5. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE ENGINE.
[RULE 1110.2, 1303(b)(2)-OFFSET]



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- 6. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1110.2.
[RULE 1110.2]
- 7. THE HEATING VALUE OF LANDFILL GAS TO THE ENGINE SHALL NOT EXCEED 16.8 MM BTU PER HOUR. A HOURLY LOG OF THE LANDFILL GAS HEATING VALUE, BASED ON THE RECORDED FLOW RATE (SCFM), SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]
- 8. READINGS OF THE HEATING VALUE (BTU/HR) OF THE LANDFILL GAS AT THE INLET TO THE ENGINE SHALL BE TAKEN HOURLY WITH AN AQMD APPROVED INSTRUMENT AND THE RESULTS RECORDED.
[RULE 1303(b)(2)-OFFSET]
- 9. THE ENGINE SHALL ONLY USE LANDFILL GAS AS A FUEL.
[RULE 204]
- 10. TWO SAMPLING PORTS SHALL BE PROVIDED IN THE ENGINE EXHAUST DUCT, 8-10 DUCT DIAMETERS DOWNSTREAM AND TWO DUCT DIAMETERS UPSTREAM OF ANY FLOW DISTURBANCE, AND SHALL CONSIST OF TWO 4 INCH WELD NIPPLES WITH PLUGS, 90 DEGREES APART. AN EQUIVALENT METHOD FOR EMISSION SAMPLING MAY BE USED UPON APPROVAL OF THE AQMD. ADEQUATE AND SAFE ACCESS TO THE TEST PORTS SHALL BE SUPPLIED BY THE APPLICANT.
[RULE 217]
- 11. THE EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING:

AIR CONTAMINANT	LBS/HR
NON-METHANE HYDROCARBONS	1.65
NITROGEN OXIDE	2.48
SULFUR DIOXIDE	0.82
CARBON MONOXIDE	9.92
PARTICULATES	0.21

[RULE 1303(b)(2)-OFFSET]

- 12. A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND OPERATED TO MEASURE THE ENGINE EXHAUST CONCENTRATION FOR NOX AND O2 ON A DRY BASIS. IN ADDITION, THE SYSTEM SHALL CONVERT THE ACTUAL NOX CONCENTRATION TO A CORRECTED NOX CONCENTRATION AT 15% O2. THIS MONITORING SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF AQMD RULE 218. PRIOR TO INSTALLATION, THIS MONITORING SYSTEM SHALL BE APPROVED IN WRITING BY THE AQMD. AN ALTERNATIVE OR PREDICTIVE MONITORING SYSTEM (PEMS), IF USED, SHALL BE SUBMITTED CONCURRENTLY WITH THE AFOREMENTIONED CEMS.
[RULE 218]
- 13. ALL RECORDS, SUCH AS FUEL USAGE, MAINTENANCE RECORDS AND PERFORMANCE TEST RESULTS, SHALL BE MAINTAINED FOR FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.



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[RULE 1150.1, 1303(b)(2)-OFFSET]

14. THIS ENGINE SHALL NOT BE OPERATED IN SUCH A MANNER AS TO UNREASONABLY INTERFERE WITH THE OWNER'S/OPERATOR'S ABILITY TO COMPLY WITH AQMD RULE 1150.1 OR ANY OTHER AQMD RULE LIMITING LANDFILL GAS MIGRATION OR SURFACE EMISSIONS.
[RULE 1150.1]
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[RULE 1150.1].
17. THE EXHAUST GAS SHALL BE SOURCE TESTED FOR NO_x, VOC (REPORTED AS METHANE) AND CO CONCENTRATIONS (CONCENTRATIONS IN PPM BY VOLUME, CORRECTED TO 15% OXYGEN ON DRY BASIS) AT LEAST ONCE EVERY TWO YEARS, OR 8760 OPERATING HOURS, WHICHEVER OCCURS FIRST.
[RULE 1110.2 (f)(1)(D)].

Emissions and Requirements:

18. NMOC: 20 PPMV AS HEXANE @3% O₂ OR 98 WEIGHT PERCENT REDUCTION, RULE 1150.1,
40 CFR 63 SUBPART AAAA
NMOC: 0.8 GR/BHP-HR, RULE 1303(a)(1)-BACT
NMOC: 40 PPM AS METHANE @15% O₂, RULE 1110.2
CO: 2000 PPMV, RULE 1110.2
CO: 2.5 GR/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
NO_x: 36 PPMV @ 15%O₂, RULE 1110.2
NO_x: 0.6 GR/BHP-HR, RULE 1303(a)(1)-BACT

Periodic Monitoring:

NONE