

## **FACILITY PERMIT TO OPERATE**

**LA CNTY SANITATION DISTRICT-PALOS VERDES  
26301 S CRENSHAW B & 25704, 06 HAWT  
ROLLING HILLS ESTATES, CA 90274**

### **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 LA CNTY SANITATION DISTRICT-PALOS VERDES

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**FACILITY PERMIT TO OPERATE  
 LA CNTY SANITATION DISTRICT-PALOS VERDES**

**SECTION A: FACILITY INFORMATION**

**LEGAL OWNER &/OR OPERATOR:** LA CNTY SANITATION DISTRICT-PALOS VERDES

**LEGAL OPERATOR (if different than owner):**

**EQUIPMENT LOCATION:** 26301 S CRENSHAW B & 25704, 06 HAWT ROLLING HILLS ESTATES, CA 90274-2514

**MAILING ADDRESS:** PO BOX 4998  
 WHITTIER, CA 90607-4998

**RESPONSIBLE OFFICIAL:** ROBERT C FERRANTE

**TITLE:** DEPARTMENTAL ENGINEER

**TELEPHONE NUMBER:** (562) 908-4288

**CONTACT PERSON:** CHARLOTTE NESBIT

**TITLE:** PROJECT ENGINEER

**TELEPHONE NUMBER:** (562) 908-4288

**INITIAL TITLE V PERMIT ISSUED:** February 19, 2007

**TITLE V PERMIT EXPIRATION DATE:** February 18, 2012

|                |                |
|----------------|----------------|
| <b>TITLE V</b> | <b>RECLAIM</b> |
|----------------|----------------|

|            |               |                |
|------------|---------------|----------------|
| <b>YES</b> | <b>NOx:</b>   | <b>NO</b>      |
|            | <b>SOx:</b>   | <b>NO</b>      |
|            | <b>CYCLE:</b> | <b>0</b>       |
|            | <b>ZONE:</b>  | <b>COASTAL</b> |

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES  
SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION**

NOT APPLICABLE

**FACILITY PERMIT TO OPERATE  
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**SECTION C: FACILITY PLOT PLAN**

(TO BE DEVELOPED)

**FACILITY PERMIT TO OPERATE  
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**Facility Equipment and Requirements  
(Section D)**

This section consists of a table listing equipment that have been issued Permits to Operate, facility wide requirements, all individual Permits to Operate issued to the various equipment at the facility, and Rule 219-exempt equipment subject to source-specific requirements. Each permit and Rule 219-exempt equipment 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 LA COUNTY SANITATION DISTRICTS- PALOS VERDES

### PERMITTED EQUIPMENT LIST

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

| Application number | Permit to Operate number | Equipment description               | Page No |
|--------------------|--------------------------|-------------------------------------|---------|
| 369150             | F59367                   | LANDFILL GAS COLLECTION (>50 WELLS) | 5       |
| 403083             | F59255                   | LEACHATE/CONDENSATE TREATMENT       | 9       |
| 440825             | F82158                   | FLARE, ENCLOSED LANDFILL GAS        | 11      |

**NOTE:** PERMITS TO CONSTRUCT (IF ANY) ARE LISTED IN SECTION H OF THIS FACILITY PERMIT. ANY OTHER 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.

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### FACILITY WIDE CONDITION(S)

**Condition(s):**

1. EXCEPT FOR OPEN ABRASIVE BLASTING OPERATIONS, THE OPERATOR SHALL NOT DISCHARGE INTO THE ATMOSPHERE FROM ANY SINGLE SOURCE OF EMISSIONS WHATSOEVER ANY AIR CONTAMINANT FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR WHICH IS:
  - A. AS DARK OR DARKER IN SHADE AS THAT DESIGNATED NO. 1 ON THE RINGLEMANN CHART, AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES; OR
  - B. OF SUCH OPACITY AS TO OBSCURE AN OBSERVER'S VIEW TO A DEGREE EQUAL TO OR GREATER THAN DOES SMOKE DESCRIBED IN SUBPARAGRAPH (A) OF THIS CONDITION.  
[RULE 401]
  
2. THE OPERATOR SHALL NOT USE FUEL OIL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 0.05 PERCENT BY WEIGHT. ON OR AFTER JUNE 1, 2004, A PERSON SHALL NOT PURCHASE ANY DIESEL FUEL FOR STATIONARY SOURCE APPLICATION IN THE DISTRICT, UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER.  
[RULE 431.2]
  
4. THE OPERATOR SHALL ONLY USE LANDFILL GAS WITH GROSS HEAT VALUE OF LESS THAN 300 BTU/CF AT STANDARD CONDITIONS, MEASURED ON A WEEKLY BASIS. SUPPLEMENTAL FUEL (NATURAL GAS ) SHALL NOT CONTAIN SULFUR OR SULFUR COMPOUND IN EXCESS OF 16 PPMV.  
[RULE 431.1]
  
4. THE OWNER/OPERATOR OF A MSW LANDFILL SHALL COMPLY WITH THE FOLLOWING:
  - A. INSTALL AND OPERATE A WIND SPEED AND DIRECTION MONITORING SYSTEM WITH A CONTINUOUS RECORDER. FOR WIND SPEED, USE A 3 CUP ASSEMBLY WITH A RANGE OF 0 TO 50 MILES AN HOUR, WITH A THRESHOLD OF 0.75 MILE PER HOUR OR LESS. FOR WIND DIRECTION, USE A VANE WITH A RANGE OF 0 TO 540 DEGREES AZIMUTH, WITH A THRESHOLD OF PLUS-MINUS 2 DEGREES. AN APPROVED ALTERNATIVE MAY BE USED IN LIEU OF THE ABOVE.  
[RULE 1150.1]
  - B. MONITOR AND COLLECT MONTHLY, OR AS PER THE APPROVED 1150.1 ALTERNATIVE, SAMPLES FOR ANALYSIS OF TOC AND TAC FROM THE SUBSURFACE REFUSE BOUNDARY SAMPLING PROBES.  
[RULE 1150.1]
  - C. OPERATE THE GAS COLLECTION AND CONTROL SYSTEM TO PREVENT THE CONCENTRATION OF TOC MEASURED AS METHANE FROM EXCEEDING 5% BY VOLUME IN THE SUBSURFACE REFUSE BOUNDARY SAMPLING PROBES.  
[RULE 1150.1]

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- D. COLLECT MONTHLY, OR AS PER THE APPROVED 1150.1 ALTERNATIVE, INTEGRATED SAMPLES FOR ANALYSIS OF TOC AND TAC FROM THE LANDFILL SURFACE.  
[RULE 1150.1]
- E. OPERATE THE GAS COLLECTION AND CONTROL SYSTEM TO PREVENT THE CONCENTRATION OF TOC MEASURED AS METHANE FROM EXCEEDING 25 PPMV AS DETERMINED BY INTEGRATED SAMPLES TAKEN ON NUMBERED 50,000 SQUARE FOOT LANDFILL GRIDS OR AS PER THE APPROVED 1150.1 ALTERNATIVE  
[RULE 1150.1]
- F. MONITOR QUARTERLY, OR AS PER THE APPROVED 1150.1 ALTERNATIVE, THE LANDFILL SURFACE FOR TOC.  
[RULE 1150.1]
- G. OPERATE THE GAS COLLECTION AND CONTROL SYSTEM TO PREVENT THE CONCENTRATION OF TOC MEASURED AS METHANE FROM EXCEEDING 500 PPMV ABOVE BACKGROUND AS DETERMINED BY INSTANTANEOUS MONITORING AT ANY LOCATION ON THE LANDFILL, EXCEPT AT THE OUTLET OF ANY CONTROL DEVICE.  
[RULE 1150.1]
- H. OPERATE THE GAS COLLECTION AND CONTROL SYSTEM SO THAT THERE ARE NO LEAKS THAT EXCEED 500 PPMV TOC MEASURED AS METHANE AT ANY COMPONENT UNDER POSITIVE PRESSURE.  
[RULE 1150.1]
- I. COLLECT MONTHLY, OR AS PER THE APPROVED 1150.1 ALTERNATIVE, LANDFILL GAS SAMPLES FOR ANALYSIS OF TOC AND TAC FROM THE MAIN GAS COLLECTION HEADER LINE ENTERING THE GAS TREATMENT AND/OR GAS CONTROL SYSTEM.  
[RULE 1150.1]
- J. COLLECT MONTHLY, OR AS PER THE APPROVED 1150.1 ALTERNATIVE, AMBIENT AIR SAMPLES FOR ANALYSIS OF TOC AND TAC FROM THE LANDFILL PROPERTY BOUNDARY.  
[RULE 1150.1]
- K. OPERATE THE GAS COLLECTION AND CONTROL SYSTEM AT ALL TIMES FOR LANDFILLS WITH ACTIVE COLLECTION SYSTEMS.  
[RULE 1150.1]
- L. OPERATE ALL WELLHEADS SO THE GAUGE PRESSURE IS UNDER A CONSTANT VACUUM, EXCEPT DURING WELL HEAD RAISING AND/OR REPAIR AND TEMPORARY SHUTDOWN DUE TO A CATASTROPHIC EVENT.  
[RULE 1150.1]

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### PERMIT TO OPERATE

Permit No. F59367  
A/N 369150

#### Equipment Description:

LANDFILL GAS COLLECTION SYSTEM CONSISTING OF:

1. FOUR HUNDRED EIGHTY TWO (482) VERTICAL GAS COLLECTION WELLS AND GAS EXTRACTION PROBES.
2. 3,500 LINEAR FEET OF HORIZONTAL GAS COLLECTION TRENCHES AND THE ASSOCIATED PIPING.
3. SIXTY (60) VERTICAL LANDFILL GAS COLLECTION WELLS AND GAS EXTRACTION PROBES AND 5000 LINEAR FEET OF HORIZONTAL GAS COLLECTION TRENCHES AND ASSOCIATED PIPING TO BE INSTALLED ON "AS NEEDED" BASIS AT THE LOCATION TO BE DETERMINED.

#### 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) THIS SYSTEM SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.  
[RULE 204]
- 4) DURING WELL DRILLING, AN APPROVED EMISSION CONTROL BOX SHALL BE PLACED OVER THE HOLE TO COLLECT LANDFILL GAS. THE COLLECTED GAS SHALL EITHER BE DIRECTED TO AN OPERATING FLARE SYSTEM WHICH HAS A VALID PERMIT ISSUED BY THE AQMD, OR BE VENTED TO A CARBON ADSORPTION UNIT WHICH HAS A SUFFICIENT CAPACITY TO REMOVE VOC EMISSIONS AND ODOR.  
[RULE 402]
- 5) WELL DRILLING, DRIVING AND/OR TRENCHING SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 6 PM AND 7 AM OR ON SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, UNLESS OTHERWISE APPROVED BY AQMD.  
[RULE 402, 1150]

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- 6) WELL DRILLING, DRIVING AND/OR TRENCHING SHALL NOT BE CONDUCTED ON DAYS WHEN AQMD FORECASTS FIRST, SECOND OR THIRD STAGE EPISODES FOR AREA NO. 3, OR WHEN AQMD REQUIRES COMPANIES IN AREA NO. 3 TO IMPLEMENT THEIR FIRST, SECOND OR THIRD STAGE EPISODE PLANS. EPISODE FORECASTS FOR THE FOLLOWING DAY CAN BE OBTAINED BY CALLING (800) 445-3826 OR (800) 242-4666.  
[RULE 402, 1150]
- 7) WELL DRILLING, DRIVING AND/OR TRENCHING SHALL NOT BE CONDUCTED WHEN THE WIND SPEED IS GREATER THAN 15 MPH, AVERAGED OVER 15 MINUTES, OR THE WIND SPEED INSTANTANEOUSLY EXCEEDS 25 MPH.  
[RULE 402, 403, 1150]
- 8) EACH WELL SHALL BE COMPLETED AND CAPPED THE SAME DAY ITS CONSTRUCTION COMMENCES UNLESS THE WELL HOLE IS COMPLETELY SEALED AND THE WELL CASING IS CONNECTED TO THE GAS COLLECTION HEADER TO PREVENT ANY LANDFILL GAS FROM ESCAPING INTO THE ATMOSPHERE.  
[RULE 1150.1]
- 9) THE CONSTRUCTION OF ANY PIPING OR WELL TRENCH WHICH EXPOSES LANDFILL TRASH TO THE ATMOSPHERE SHALL BE STAGED SUCH THAT NO MORE THAN ONE HUNDRED (100) LINEAR FEET OF TRENCHING IS EXPOSED AT ANY TIME PRIOR TO BACKFILLING. THE NUMBER OF EXCAVATION SITES SHALL NOT EXCEED TWO.  
[RULE 402, 1150]
- 10) WELL HOLES, TRENCHES, AND EXPOSED LANDFILL TRASH SHALL BE COMPLETELY COVERED TO PREVENT ANY EMISSIONS OF LANDFILL GAS TO THE ATMOSPHERE WHENEVER WORK IS NOT ACTIVELY IN PROGRESS. THE COVER SHALL INCLUDE, BUT MAY NOT BE LIMITED TO A MINIMUM OF 6 INCHES OF CLEAN DIRT, APPROVED FOAM OR HEAVY-DUTY PLASTIC SHEETING. FOAM BY ITSELF SHALL NOT BE USED AS A COVER IF IT IS RAINING OR RAIN IS PREDICTED BY THE NATIONAL WEATHER SERVICE PRIOR TO THE NEXT SCHEDULED WORKING DAY.  
[RULE 402, 1150.1]
- 11) FOR PURPOSES OF THIS PERMIT, CONSTRUCTION SPOILS ARE LANDFILL TRASH MATERIALS THAT ARE MIXED WITH LANDFILL TRASH, MATERIALS THAT HAVE BEEN IN CONTACT WITH LANDFILL TRASH, OR ODOROUS MATERIALS THAT ARE REMOVED FROM WELL HOLES OR TRENCHES.  
[RULE 402, 403, 1150]
- 12) CONSTRUCTION SPOILS AND ALL WORKING AREAS BEING ACTIVELY USED FOR TRUCK AND CONSTRUCTION EQUIPMENT TRAFFICKING SHALL BE MAINTAINED IN A MOIST CONDITION TO MINIMIZE DUST AND EMISSIONS.  
[RULE 402, 403, 1150]
- 13) CONSTRUCTION SPOILS SHALL NOT BE STOCKPILED ON SITE. ALL CONSTRUCTION SPOILS SHALL BE DEPOSITED DIRECTLY INTO THE TRUCK OR TRAILER BED WHICH WILL BE HAULED AWAY FOR DISPOSAL. THE TRUCK BEDS OR TRAILERS HAULING THE CONSTRUCTION SPOILS SHALL BE COMPLETELY COVERED WITH AN IMPERMEABLE COVER WITH SUCH COVERS TIED DOWN. ALL SEAMS SHALL BE SEALED TO PREVENT ANY MATERIALS FROM ESCAPING DURING TRANSPORT.

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[RULE 402, 1150]

- 14) DURING TRANSPORT OF THE CONSTRUCTION SPOILS, NO MATERIAL SHALL EXTEND ABOVE THE SIDES OR REAR OF THE VEHICLE HAULING THE MATERIAL.  
[RULE 1150]
- 15) THE EXTERIOR OF THE VEHICLE (INCLUDING THE TIRES) HAULING THE CONSTRUCTION SPOILS SHALL BE CLEANED PRIOR TO LEAVING THE WORK SITE.  
[RULE 1150]
- 16) IF A DISTINCT ODOR LEVEL (LEVEL III OR GREATER) RESULTING FROM THE CONSTRUCTION IS DETECTED AT OR BEYOND THE PROPERTY LINE, ALL WORK SHALL CEASE UNTIL THE ODOR SOURCES ARE DETERMINED AND ELIMINATED. ODOR LEVELS SHALL BE DETERMINED BY AQMD PERSONNEL OR ON-SITE SAFETY COORDINATOR IN THE ABSENCE OF AQMD PERSONNEL.  
[RULE 402, 1150]
- 17) DURING CONSTRUCTION, IF A CONSIDERABLE NUMBER OF COMPLAINTS ARE RECEIVED, ALL WORK SHALL CEASE AND APPROVED MITIGATION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. WORK SHALL NOT RESUME UNTIL THE EMISSIONS CAUSING THE COMPLAINTS IS MITIGATED AND THE APPROVAL TO RESUME WORK IS RECEIVED FROM THE AQMD.  
[RULE 402, 1150]
- 18) MITIGATION MEASURES, OTHER THAN THOSE INDICATED IN THESE CONDITIONS, WHICH ARE DEEMED APPROPRIATE BY AQMD AS NECESSARY TO PROTECT THE COMFORT, REPOSE, HEALTH OR SAFETY OF THE PUBLIC SHALL BE IMPLEMENTED UPON REQUEST.  
[RULE 1150.1]
- 19) EACH VERTICAL HEAD SHALL BE EQUIPPED WITH A SHUT-OFF VALVE AND A SAMPLING PORT.  
[RULE 1150.1]
- 20) EACH VERTICAL WELL SHALL BE CONNECTED TO AN OPERATING LANDFILL GAS HEADER AS SOON AS POSSIBLE BUT NOT LATER THAN SEVEN (7) DAYS AFTER THE WELL IS INSTALLED.  
[RULE 1150, 1150.1]
- 21) UNTIL CONNECTED TO AN OPERATING LANDFILL GAS COLLECTION SYSTEM, EACH COMPLETED WELL SHALL BE CAPPED AND ITS GAS CONTROL VALVE CLOSED TO AVOID VENTING LANDFILL GAS TO THE ATMOSPHERE.  
[RULE 1150, 1150.1]
- 22) EACH WELL SHALL BE SECURELY SEALED TO PREVENT ESCAPE OF ANY LANDFILL GAS FROM AROUND THE WELL CASING.  
[RULE 402, 1150.1]
- 23) ALL OPENINGS OF THE GAS COLLECTION SYSTEM SHALL BE PROPERLY SEALED TO PREVENT ESCAPE OF GAS INTO THE ATMOSPHERE.  
[RULE 402, 1150.1]

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- 24) ALL GASES COLLECTED BY THIS SYSTEM SHALL BE VENTED TO A COMBUSTION OR PROCESSING FACILITY WHICH IS IN FULL USE AND CAN ADEQUATELY PROCESS THE VOLUME OF GAS COLLECTED, AND HAS BEEN ISSUED A VALID PERMIT TO CONSTRUCT OR OPERATE BY THE AQMD.  
[RULE 1150.1, 1303(a)(1)-BACT]
- 25) THE OPERATION OF THIS SYSTEM SHALL NOT RESULT IN THE RELEASE OF ANY RAW LANDFILL GAS OR CONDENSATE INTO THE ATMOSPHERE.  
[RULE 402, 1150]
- 26) THE AQMD SHALL BE NOTIFIED IN WRITING AT LEAST ONE (1) WEEK IN ADVANCE WHEN AN ADDITIONAL TRENCH, WELL, OR SET OF WELLS AND THEIR ASSOCIATED PIPING WILL BE INSTALLED. THE PROPOSED TRENCH OR WELL LOCATIONS AND PIPING SHALL BE IDENTIFIED ON DRAWINGS WHICH SHOW THE ENTIRE GAS COLLECTION SYSTEM. ESTIMATED GAS COLLECTION VOLUME, TRENCH LENGTHS AND DEPTHS, WELL DEPTHS, PIPE LENGTHS, PIPE DIAMETERS AND LAYOUTS SHALL BE INCLUDED IN THIS NOTIFICATION.  
[RULE 1150.1]
- 27) SHORT NOTICE CONSTRUCTION PROJECTS IN RESPONSE TO NOTICE-TO-COMPLY OR MITIGATION OF EXCEEDANCES PURSUANT TO RULE 1150.1 ARE EXEMPT FROM ONE (1) WEEK ADVANCE WRITTEN NOTICES. TELEPHONE, ELECTRONIC MAIL OR OTHER MEANS OF ADVANCE NOTIFICATION SHALL BE SUFFICIENT FOR PROJECT STARTUP. SUCH COMMUNICATION SHALL INCLUDE THE LOCATION AND A BRIEF DESCRIPTION OF THE PROJECT, THE CURRENT, PROPOSED, AND THE PERMIT LIMITS FOR WELL COUNTS AND HORIZONTAL TRENCH LENGTHS. WRITTEN NOTIFICATION OF THE ABOVE DESCRIBED REQUIREMENTS SHALL BE PROVIDED TO THE SCAQMD AS SOON AS POSSIBLE BUT NOT LATER THAN 30 DAYS OF THE PROJECT STARTUP DATE.  
[RULE 1150.1]
- 28) WITHIN 30 DAYS AFTER CONSTRUCTION OF A GROUP OF WELLS AND THE ASSOCIATED PIPING IS COMPLETE, THE PERMITTEE SHALL SUBMIT AS BUILT DRAWINGS IN DUPLICATE TO THE AQMD.  
[RULE 1150.1]

### **Emissions And Requirements:**

- 29) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENT OF THE FOLLOWING RULES AND REGULATION:

GASEOUS EMISSIONS: RULE 1150.1

## FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES

### PERMIT TO OPERATE

Permit No. F59255  
A/N 403083

#### Equipment Description:

LANDFILL LEACHATE / CONDENSATE TREATMENT SYSTEM, CONSISTING OF:

1. OIL/WATER SEPARATOR, GRAVITY TYPE, 2035 GALLON CAPACITY, VENTED TO THE LANDFILL GAS COLLECTION SYSTEM.
2. COLLECTION SUMP TANK, 4' DIA. X 12.5' H., VENTED TO THE LANDFILL GAS COLLECTION SYSTEM.
3. TWO (2) CONTAMINATED WATER STORAGE / EQUALIZATION TANKS, 6,500 GALLON EACH, VENTED TO THE LANDFILL GAS COLLECTION SYSTEM.
4. 120 GPM CAPACITY AIR STRIPPING SYSTEM, 4' L. X 3'-10" W. X 8' H., WITH MAXIMUM 850 CFM AIR FLOW, INDUCED BY LANDFILL GAS COLLECTION SYSTEM.
5. CLARIFIER WITH MIX TANK AND FLOCCULATION TANK, AND CAUSTIC STORAGE TANK
6. SLUDGE STORAGE TANK, VENTED TO THE LANDFILL GAS COLLECTION SYSTEM.
7. AND ASSOCIATED TRANSFER PUMPS.

#### 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) THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS USE.  
[RULE 204]
- 4) THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE OIL/WATER SEPARATOR, SUMP TANK, CONTAMINATED WATER STORAGE TANKS, AIR STRIPPER, AND SLUDGE STORAGE TANK ARE VENTED TO THE LANDFILL GAS COLLECTION SYSTEM OR TO AN AIR POLLUTION CONTROL EQUIPMENT THAT HAS BEEN ISSUED A PERMIT TO CONSTRUCT OR OPERATE BY THE SOUTH COAST AQMD.  
[RULE 1303(a)(1)-BACT]

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- 5) TANKS WITH OVERFLOW PIPES SHALL BE EQUIPPED WITH HIGH LIQUID LEVEL SHUT OFF SYSTEM TO PREVENT THE OVERFLOW OF CONTAMINATED WATER FROM THE TANKS.  
[RULE 402, RULE 1150.1]
- 6) CONTAMINATED WATER TREATED BY THIS SYSTEM SHALL NOT EXCEED 172,000 GALLONS PER DAY. NON-RESETABLE FLOW METERS SHALL BE INSTALLED AT ALL FINAL DISCHARGE POINTS OF THE SYSTEM TO INDICATE THE DAILY FLOW RATE OF TREATED WATER. IN ADDITION, RECORDS SHALL BE MAINTAINED TO INDICATE DAILY VOLUME OF CONTAMINATED WATER TREATED.  
[RULE 1303(b)(2)-OFFSET]
- 7) SLUDGE GENERATED FROM THIS SYSTEM SHALL REMAIN IN SLUDGE STORAGE TANK UNLESS IT IS REMOVED FOR TRANSPORT TO A DIFFERENT FACILITY FOR DEWATERING AND/OR DISPOSAL.  
[RULE 402]
- 8) TREATED WATER OR SLUDGE SHALL NOT BE DISPOSED BACK INTO THE LANDFILL.  
[RULE 402, RULE 1150.1]
- 9) RECORDS REQUIRED BY THIS PERMIT SHALL BE MAINTAINED FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO THE AQMD PERSONNEL UPON REQUEST. AT MINIMUM THE MOST RECENT TWO YEARS OF RECORDS SHALL BE RETAINED ON SITE.  
[RULE 3004 (a)(4)]

## FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES

### PERMIT TO OPERATE

Permit No. F82158  
A/N 440825

**Equipment Description:**

LANDFILL GAS FLARING STATION CONSISTING OF:

1. SIX (6) FLARES, EACH 8'-0" DIA X 16'-0" HIGH, WITH AUTOMATIC COMBUSTION AIR LOUVERS.
2. FOUR (4) LANDFILL GAS BLOWERS.

**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) THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.  
[RULE 204]
- 4) EACH FLARE SHALL BE EQUIPPED WITH A TEMPERATURE INDICATORS AND RECORDERS WHICH MEASURE AND RECORD THE GAS TEMPERATURE IN THE FLARE STACK. THE TEMPERATURE INDICATORS AND RECORDERS SHALL OPERATE WHENEVER THE RESPECTIVE FLARES ARE IN OPERATION.  
[RULE 1303(a)(1)-BACT]
- 5) WHENEVER A FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1500 DEGREES FAHRENHEIT (15 MINUTES AVERAGE) SHALL BE MAINTAINED IN THE FLARE STACK AS MEASURED BY THE TEMPERATURE INDICATOR AND RECORDER EXCEPT DURING PERIODS OF STARTUP AND SHUTDOWN. STARTUP IS DEFINED AS THE PERIOD FROM FLARE IGNITION TO THE TIME WHEN 1500 DEGREE FAHRENHEIT IS ACHIEVED, NOT TO EXCEED 30 MINUTES. SHUTDOWN IS THE PERIOD FROM WHEN THE GAS VALVE BEGINS TO BE SHUT, AND THE TEMPERATURE DECLINES TO ZERO DEGREES, NOT TO EXCEED 30 MINUTES.  
[RULE 1303(a)(1)-BACT]

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- 6) THE OPERATOR SHALL OPERATE AND MAINTAIN THIS EQUIPMENT ACCORDING TO THE FOLLOWING REQUIREMENTS:

CONTINUOUS EXHAUST TEMPERATURE MONITORING AND RECORDING SYSTEM SHALL BE PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A SYSTEM SHALL HAVE AN ACCURACY OF WITHIN  $\pm 1\%$  OF THE TEMPERATURE BEING MONITORED AND SHALL BE INSPECTED, MAINTAINED, AND CALIBRATED ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS USING AN APPLICABLE AQMD OR EPA APPROVED METHOD.

FOR THE PURPOSE OF THIS CONDITION, A DEVIATION SHALL BE DEFINED AS WHEN A TEMPERATURE OF LESS THAN 1,500 DEGREES FAHRENHEIT OCCURS DURING NORMAL OPERATION EXCEPT DURING STARTUPS OR SHUTDOWNS. NOT TO EXCEED 30 MINUTES. THE EXHAUST TEMPERATURE SHALL BE AVERAGED OVER A 15-MINUTE PERIOD, AND HOURLY AVERAGE SHALL BE COMPUTED FROM SUCH DATA POINTS. THE OPERATOR SHALL REVIEW THE RECORDS OF TEMPERATURE ON A DAILY BASIS TO DETERMINE IF A DEVIATION OCCURS OR SHALL INSTALL AN ALARM SYSTEM TO ALERT THE OPERATOR WHEN A DEVIATION OCCURS.

FOR EACH SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K, WHENEVER A DEVIATION OCCURS FROM 1,500 DEGREES FAHRENHEIT, THE OPERATOR SHALL TAKE IMMEDIATE CORRECTIVE ACTION, AND KEEP RECORDS OF THE DURATION AND CAUSE (INCLUDING UNKNOWN CAUSE, IF APPLICABLE) OF THE DEVIATION AND THE CORRECTIVE ACTION TAKEN.

ALL DEVIATIONS SHALL BE REPORTED TO THE AQMD ON A SEMI-ANNUAL BASIS PURSUANT TO THE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.9 AND CONDITION NOS. 22 AND 23 IN SECTION K OF THIS PERMIT.

THE OPERATOR SHALL SUBMIT AN APPLICATION WITH A QUALITY IMPROVEMENT PLAN (QIP) IN ACCORDANCE WITH 40 CFR PART 64.8 TO THE AQMD IF AN ACCUMULATION OF DEVIATIONS EXCEEDS 5 PERCENT DURATION OF THIS EQUIPMENT'S TOTAL OPERATING TIME FOR ANY SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K OF THIS PERMIT. THE REQUIRED QIP SHALL BE SUBMITTED TO THE AQMD WITHIN 90 CALENDAR DAYS AFTER THE DUE DATE FOR THE SEMI-ANNUAL MONITORING REPORT.

THE OPERATOR SHALL INSPECT AND MAINTAIN ALL COMPONENTS OF THIS EQUIPMENT ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE OPERATOR SHALL KEEP ADEQUATE RECORDS IN A FORMAT THAT IS ACCEPTABLE TO THE AQMD TO DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS SPECIFIED IN THIS CONDITION AND 40 CFR PART 64.9 FOR A MINIMUM OF FIVE YEARS.  
[RULE 3004(A) (4)-PERIODIC MONITORING, 40CFR PART 64]

- 7) EACH FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC PILOT RE-START SYSTEM APPROVED BY THE EXECUTIVE OFFICER.  
[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES

- 8) EACH FLARE SHALL BE EQUIPPED WITH A FAILURE ALARM WITH AUTOMATIC SYSTEM, WHICH HAS BEEN APPROVED BY THE EXECUTIVE OFFICER, TO AUTOMATICALLY ISOLATE THE FLARE FROM THE LANDFILL GAS SUPPLY LINE, AND SHUT OFF THE BLOWERS WHEN FAILURE OF THE ENTIRE FLARING STATION OCCURS.  
[RULE 1303(a)(1)-BACT]
- 9) AMBIENT METHANE ANALYZERS APPROVED BY THE EXECUTIVE OFFICER SHALL BE MAINTAINED AROUND THE FLARE STATION IN THE VICINITY OF THE BLOWERS AND POSITIVE PRESSURE LANDFILL GAS PIPELINES TO MONITOR FOR LINE BREAKS AND MAJOR LEAKS.  
[RULE 204, RULE 1150.1]
- 10) A PRESSURE SENSING DEVICE WITH AN AUTOMATIC BLOWER SHUT-OFF SYSTEM APPROVED BY THE EXECUTIVE OFFICER SHALL BE INSTALLED IN THE BLOWER DISCHARGE LINE TO DETECT PRESSURE DROP DUE TO LANDFILL GAS LEAKS.  
[RULE 1303(a)(1)-BACT]
- 11) THE SAFETY SYSTEM SPECIFIED IN CONDITION NUMBER 7 SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND THE RESULTS RECORDED.  
[RULE 1303(a)(1)-BACT, RULE 204]
- 12) A FLOW INDICATING AND RECORDING DEVICE APPROVED BY THE EXECUTIVE OFFICER SHALL BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE FLARE STATION TO MEASURE AND RECORD THE QUANTITY OF LANDFILL GAS BEING BURNED IN THE FLARE STATION. THIS FLOW INDICATING AND RECORDING DEVICE SHALL OPERATE WHENEVER THE FLARE STATION IS IN OPERATION.  
[RULE 1303(b)(2)-OFFSET]
- 13) ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.  
[RULE 204]
- 14) THE EMISSION OF NITROGEN OXIDES (NOX) FROM EACH FLARE SHALL NOT EXCEED 0.06 POUNDS PER MILLION BTU'S INLET GAS.  
[RULE 1303(a)(1)-BACT]
- 15) ANY BREAKDOWN OR MALFUNCTION OF THE LANDFILL GAS FLARING SYSTEM RESULTING IN THE EMISSION OF RAW LANDFILL GAS SHALL BE REPORTED TO THE AQMD WITHIN ONE HOUR AFTER OCCURRENCE, AND IMMEDIATE REMEDIAL MEASURE SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSION EMISSIONS INTO THE ATMOSPHERE IN ACCORDANCE WITH AQMD RULE 430 REQUIREMENTS.  
[RULE 430]
- 16) COMPLIANCE WITH CONDITION NUMBERS 13 AND 16 OF THIS PERMIT SHALL BE DEMONSTRATED BY USING AQMD APPROVED TEST PROCEDURES.  
RULE 1303(a)(1)-BACT, RULE 204]
- 17) LANDFILL GAS ENTERING THE FLARE STATION SHALL BE ANALYZED WEEKLY FOR METHANE CONCENTRATION. RESULTS SHALL BE RECORDED AND PROVIDED TO THE DISTRICT UPON REQUEST.  
[RULE 1150.1]

## FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES

- 18) THE FLAME IN EACH FLARE SHALL REMAIN BELOW THE HEIGHT OF THE FLARE'S TEMPERATURE INDICATOR AT ALL TIMES.  
[RULE 1303(a)(1)-BACT]
- 19) ALL RECORDS SHALL BE KEPT FOR A PERIOD OF FIVE (5) YEARS AND MADE AVAILABLE TO THE AQMD PERSONNEL UPON REQUEST.  
[RULE 1150.1, RULE 3004(a)(4)]

### **Emissions And Requirements:**

- 20) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENT OF THE FOLLOWING RULES AND REGULATION:
- CO: 2000 PPMV, RULE 407
  - SOX: 500 PPMV, RULE 407
  - PM: 0.1 GRAIN/CF, RULE 409
  - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMIT
  - VOC: 20 PPMV AS HEXANE (DRY @ 3% O<sub>2</sub>) OR 98% DESTRUCTION EFFICIENCY, RULE 1150.1

## FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES

### RULE 219 EQUIPMENT

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS.

**Periodic Monitoring:**

1. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

FOR ARCHITECTURAL APPLICATIONS WHERE NO THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN SEMI-ANNUAL RECORDS OF ALL COATINGS CONSISTING OF:

- A. COATING TYPE,
- B. VOC CONTENT AS SUPPLIED IN GRAMS PER LITER (g/l) OF MATERIALS FOR LOW-SOLIDS COATINGS'
- C. VOC CONTENT AS SUPPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

FOR OTHER ARCHITECTURAL APPLICATIONS WHERE THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN DAILY RECORDS FOR EACH COATING CONSISTING OF:

- A. COATING TYPE,
- B. VOC CONTENT AS APPLIED IN GRAMS PER LITER (g/l) OF MATERIALS USED FOR LOW-SOLIDS COATINGS'
- C. VOC CONTENT AS APPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

[RULE 3004 (a) (4)]

**Emissions And Requirements:**

2. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

**FACILITY PERMIT TO OPERATE  
LA COUNTY SANITATION DISTRICTS- PALOS VERDES**

**RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, HAND WIPING OPERATIONS.

**Emissions And Requirements:**

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

## **FACILITY PERMIT TO OPERATE LA COUNTY SANITATION DISTRICTS- PALOS VERDES**

### **RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS

**Emissions And Requirements:**

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

REFRIGERANT:           RULE 1415  
REFRIGERANT:           40CFR 82 SUBART F

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]
  - a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
  - b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
  - c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]
2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]
3. This permit does not authorize the emissions of aircontaminants in excess of those allowed by Division 26 of the Health andSafety Code of the State of California or the Rules and Regulations of theAQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations, orstatutes of other governmental agencies. [204]
4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION E: ADMINISTRATIVE CONDITIONS

5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation. [204]
6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least five years. [204]
7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]
  - a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134]
  - b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
  - c. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]
  - d. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compounds which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO<sub>2</sub>) and be averaged over 15 consecutive minutes; [407]
  - e. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO<sub>2</sub>) at standard conditions and averaged over a minimum of 15 consecutive minutes. [409]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION E: ADMINISTRATIVE CONDITIONS

- f. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O<sub>2</sub>) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]
8. The operator shall, when a source test is required by AQMD, provide a source test protocol to AQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by AQMD. The test protocol shall contain the following information: [204, 304]
  - a. Brief description of the equipment tested.
  - b. Brief process description, including maximum and normal operating temperatures, pressures, throughput, etc.
  - c. Operating conditions under which the test will be performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts and stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Brief description of sampling and analytical methods used to measure each pollutant, temperature, flow rates, and moisture.
  - f. Description of calibration and quality assurance procedures.
  - g. Determination that the testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (conflict of interest).
9. The operator shall submit a report no later than 60 days after conducting a source test, unless otherwise required by AQMD rules or equipment-specific conditions. The report shall contain the following information: [204]
  - a. The results of the source test.

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

- b. Brief description of the equipment tested.
  - c. Operating conditions under which the test was performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts and stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Field and laboratory data forms, strip charts and analyses.
  - f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.
10. The operator shall, when a source test is required, provide and maintain facilities for sampling and testing. These facilities shall comply with the requirements of AQMD Source Test Method 1.1 and 1.2. [217]
  11. Whenever required to submit a written report, notification or other submittal to the Executive Officer, AQMD, or the District, the operator shall mail or deliver the material to: Deputy Executive Officer, Engineering and Compliance, AQMD, 21865 E. Copley Drive, Diamond Bar, CA 91765-4182. [204]

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES**

**SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS**

NOT APPLICABLE

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES**

**SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR  
RECLAIM SOURCES**

NOT APPLICABLE

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICTS-PALOS VERDES**

**Permit to Construct and Temporary Permit to Operate  
(Section H)**

This section consists of a table listing all permitted equipment at the facility, facility wide requirements, all individual Permits to Construct issued to various equipment at the facility subject to source-specific requirements. 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 LA CNTY SANITATION DISTRICTS-PALOS VERDES

### PERMITTED EQUIPMENT LIST

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

| <b>Application No.</b> | <b>Equipment description</b> | <b>Page</b> |
|------------------------|------------------------------|-------------|
| 483623                 | LFG FLARING SYSTEM           | 4           |

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

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICTS-PALOS VERDES**

**FACILITY WIDE CONDITION(S)**

**Condition(s):**

1. OPERATOR SHALL COMPLY WITH ATTACHMENT B, FUGITIVE DUST CONTROL PLAN, OF THE MITIGATED NEGATIVE DECLARATION, DATED MARCH 13, 2008.  
[RULE 204]
2. PERSONNEL PROPERLY TRAINED IN OPERATION AND MAINTENANCE OF THE LANDFILL GAS COLLECTION SYSTEM AND CONTROL EQUIPMENT SHALL BE ONSITE DURING REGULAR WORKING HOURS.  
[RULE 204]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICTS-PALOS VERDES

### PERMIT TO CONSTRUCT

Granted as of 5/18/10  
A/N 483623

#### Equipment Description:

LANDFILL GAS FLARING SYSTEM CONSISTING OF:

1. LIQUID KNOCKOUT/PARTICULATE REMOVAL VESSEL, JOHN ZINK, 2'-6", DIA. X 6'-0" H.
2. THREE BLOWERS, LANDFILL GAS, EACH MAXIMUM FLOW RATE 3000 SCFM, COMMON TO THE EXISTING FLARE STATION.
3. FLARE, JOHN ZINK, ZULE, 13'-0" DIA. X 35'-0" H., 75.6 MMBTU/HR, LANDFILL GAS FIRED, AUGMENTED WITH NATURAL GAS, WITH A MULTI JET BURNER, A PROPANE GAS PILOT, ELECTRIC IGNITER, UV FLAME SENSOR, THERMOCOUPLE WITH TEMPERATURE INDICATOR AND RECORDER, AUTOMATIC SHUTDOWN AND ALARM SYSTEM, AUTOMATIC COMBUSTION AIR REGULATING SYSTEM, TEMPERATURE CONTROLLER AND FLAME ARRESTOR.

#### Conditions:

1. CONSTRUCTION AND 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. THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.  
[RULE 204]
4. NON-RESETTING FLOW MONITORING AND RECORDING DEVICES SHALL BE INSTALLED AND OPERATED IN THE LANDFILL GAS AND NATURAL GAS SUPPLY LINES TO THIS SYSTEM TO CONTINUOUSLY MEASURE AND RECORD THE LANDFILL GAS AND NATURAL GAS CONSUMPTION IN STANDARD CUBIC FEET PER MINUTE.  
[RULE 1303(b)(2)-OFFSET]
5. ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.  
[RULE 1303(b)(2)-OFFSET]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICTS-PALOS VERDES

6. THE TOTAL FLOW RATE OF LANDFILL GAS TO THE FLARE SHALL NOT EXCEED 8100 SCFM AT 150 BTU/SCF (OR EQUIVALENT).  
[RULE 1303 (b)(2)-OFFSET]
7. THE MAXIMUM HEATING VALUE TO THE FLARE SHALL NOT EXCEED 75.6 MILLION BTU PER HOUR. THE METHANE CONTENT OF THE LANDFILL GAS SHALL BE MONITORED AND RECORDED WEEKLY. THE HEATING VALUE SHALL BE CALCULATED AND RECORDED WEEKLY BASED ON THE FOLLOWING EQUATION:  
  
$$\text{MM BTU/HR} = [\text{LANDFILL GAS METHANE CONTENT (BTU/SCF)} \times \text{FLOW RATE (SCFM)} + \text{NATURAL GAS METHANE CONTENT (BTU/SCF)} \times \text{FLOW RATE (SCFM)}] \times 60 \text{ MIN/HR.}$$
  
[RULE 1303(b)(2)-OFFSET]
8. THE FLARE SHALL ONLY BE FIRED WITH LANDFILL GAS OR A BLEND OF LANDFILL GAS AND NATURAL GAS FUEL. NATURAL GAS SHALL ONLY BE USED FOR START-UP AND WHEN THE LANDFILL GAS HEATING VALUE IS NOT SUFFICIENT TO SUPPORT GOOD COMBUSTION. TO ASSIST GOOD COMBUSTION ONLY, NATURAL GAS SHALL BE BLENDED WITH LANDFILL GAS AT OR BEFORE THE FLARE INLETS.  
[RULE 1303(a)(1)-BACT]
9. THIS FLARE SHALL BE USED TO COMBUST ALL LANDFILL GAS COLLECTED EXCEPT DURING FLARE STARTUP AND MAINTENANCE PERIODS AND DURING EQUIPMENT UPSETS WHERE LANDFILL GAS CANNOT BE IMMEDIATELY HANDLED BY THIS FLARE. IN THESE CASES, THE LANDFILL GAS MAY BE DIRECTED TO THE STANDBY FLARE STATION.  
[RULE 1303(b)(2)-OFFSET]
10. ALL LANDFILL GAS COLLECTED SHALL BE DIRECTED TO A LANDFILL GAS CONTROL SYSTEM WHICH HAS BEEN ISSUED A VALID PERMIT BY THE AQMD.  
[RULE 1150.1, 1303(a)(1)-BACT]
11. WHENEVER THE FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAT 1500 DEGREES F AS MEASURED BY THE TEMPERATURE INDICATOR SHALL BE MAINTAINED IN THE FLARE STACK. THE THERMOCOUPLE USED TO MEASURE THE TEMPERATURE SHALL BE ABOVE THE FLAME ZONE AND AT LEAST 3 FEET BELOW THE TOP OF THE FLARE SHROUD AND AT LEAST 0.6 SECONDS DOWNSTREAM OF THE BURNER.  
[RULE 1150.1, 1303(a)(1)-BACT]
12. A SAMPLING PORT SHALL BE INSTALLED AT THE INLET GAS LINE TO THE FLARE.  
[RULE 217]
13. A SET OF FOUR SAMPLING PORTS SHALL BE INSTALLED IN THE FLARE SHROUD AND LOCATED AT LEAST TWO FEET ABOVE THE FLAME ZONE AND AT LEAST THREE FEET BELOW THE TOP OF THE FLARE SHROUD. EACH PORT SHALL BE INSTALLED AT 90 DEGREES APART, AND SHALL CONSIST OF FOUR INCH COUPLINGS WITH PLUGS. ADEQUATE AND SAFE ACCESS TO ALL TEST PORTS SHALL BE PROVIDED.  
[RULE 217]
14. THE SAMPLING PORTS SHALL BE MAINTAINED ON THE FLARE STACK. ADEQUATE AND SAFE ACCESS TO ALL SOURCE TEST PORTS SHALL BE PROVIDED BY THE APPLICANT WITHIN TWENTY FOUR (24) HOURS OF A REQUEST BY THE AQMD TO CONDUCT A TEST.

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICTS-PALOS VERDES

[RULE 217]

15. THE SKIN TEMPERATURE OF THE FLARE SHROUD WITHIN FOUR FEET OF ALL THE SOURCE TEST PORTS SHALL NOT EXCEED 250 DEGREES F. IF A HEAT SHIELD IS REQUIRED TO MEET THIS REQUIREMENT, ITS DESIGN SHALL BE APPROVED BY THE AQMD PRIOR TO CONSTRUCTION. THE HEAT SHIELD, IF REQUIRED TO MEET THE TEMPERATURE REQUIREMENT, SHALL BE IN PLACE WHENEVER A SOURCE TEST IS CONDUCTED BY THE AQMD.  
[RULE 217]
16. PRIOR TO OPERATING THIS EQUIPMENT, A SUFFICIENT NUMBER OF SIGHT GLASS WINDOWS SHALL BE INSTALLED IN THE FLARE TO ALLOW VISUAL INSPECTION OF THE FLAME AND THERMOCOUPLE LOCATION WITHIN THE FLARE AT ALL TIMES. PERMANENT AND SAFE ACCESS SHALL BE PROVIDED FOR ALL SIGHT GLASS WINDOWS.  
[RULE 1303(a)(1)-BACT, 217]
17. THE FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC DAMPER SYSTEM TO REGULATE THE FLOW OF COMBUSTION AIR.  
[RULE 1303(a)(1)-BACT]
18. THE FLARE SHALL BE EQUIPPED WITH A CONTINUOUS TEMPERATURE INDICATOR AND RECORDER WHICH MEASURES AND RECORDS THE GAS TEMPERATURE IN THE FLARE STACK THE TEMPERATURE INDICATOR AND RECORDER SHALL OPERATE WHENEVER THE FLARE IS IN OPERATION.  
[RULE 1150.1, 1303(a) (1)-BACT]
19. THE OPERATOR SHALL OPERATE AND MAINTAIN THIS EQUIPMENT ACCORDING TO THE FOLLOWING REQUIREMENTS:

THE EXHAUST TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM OF 1,500 DEGREES FAHRENHEIT WHENEVER THE EQUIPMENT IT SERVES IS IN OPERATION.

CONTINUOUS EXHAUST TEMPERATURE MONITORING AND RECORDING SYSTEM SHALL BE PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A SYSTEM SHALL HAVE AN ACCURACY OF WITHIN  $\pm 1\%$  OF THE TEMPERATURE BEING MONITORED AND SHALL BE INSPECTED, MAINTAINED, AND CALIBRATED ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS USING AN APPLICABLE AQMD OR EPA APPROVED METHOD.

FOR THE PURPOSE OF THIS CONDITION, A DEVIATION SHALL BE DEFINED AS WHEN A TEMPERATURE OF LESS THAN 1,500 DEGREES FAHRENHEIT OCCURS DURING NORMAL OPERATION EXCEPT DURING STARTUPS OR SHUTDOWNS. NOT TO EXCEED 30 MINUTES. THE EXHAUST TEMPERATURE SHALL BE AVERAGED OVER A 15-MINUTE PERIOD, AND HOURLY AVERAGE SHALL BE COMPUTED FROM SUCH DATA POINTS. THE OPERATOR SHALL REVIEW THE RECORDS OF TEMPERATURE ON A DAILY BASIS TO DETERMINE IF A DEVIATION OCCURS OR SHALL INSTALL AN ALARM SYSTEM TO ALERT THE OPERATOR WHEN A DEVIATION OCCURS.

FOR EACH SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K, WHENEVER A DEVIATION OCCURS FROM 1,500 DEGREES FAHRENHEIT, THE OPERATOR SHALL

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICTS-PALOS VERDES**

TAKE IMMEDIATE CORRECTIVE ACTION, AND KEEP RECORDS OF THE DURATION AND CAUSE (INCLUDING UNKNOWN CAUSE, IF APPLICABLE) OF THE DEVIATION AND THE CORRECTIVE ACTION TAKEN.

ALL DEVIATIONS SHALL BE REPORTED TO THE AQMD ON A SEMI-ANNUAL BASIS PURSUANT TO THE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.9 AND CONDITION NOS. 22 AND 23 IN SECTION K OF THIS PERMIT.

THE OPERATOR SHALL SUBMIT AN APPLICATION WITH A QUALITY IMPROVEMENT PLAN (QIP) IN ACCORDANCE WITH 40 CFR PART 64.8 TO THE AQMD IF AN ACCUMULATION OF DEVIATIONS EXCEEDS 5 PERCENT DURATION OF THIS EQUIPMENT'S TOTAL OPERATING TIME FOR ANY SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K OF THIS PERMIT. THE REQUIRED QIP SHALL BE SUBMITTED TO THE AQMD WITHIN 90 CALENDAR DAYS AFTER THE DUE DATE FOR THE SEMI-ANNUAL MONITORING REPORT.

THE OPERATOR SHALL INSPECT AND MAINTAIN ALL COMPONENTS OF THIS EQUIPMENT ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE OPERATOR SHALL KEEP ADEQUATE RECORDS IN A FORMAT THAT IS ACCEPTABLE TO THE AQMD TO DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS SPECIFIED IN THIS CONDITION AND 40 CFR PART 64.9 FOR A MINIMUM OF FIVE YEARS.  
[RULE 3004(A) (4)-PERIODIC MONITORING, 40CFR PART 64]

20. THE FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC PILOT RESTART SYSTEM APPROVED BY THE AQMD. THE AUTOMATIC PILOT RESTART SHALL BE CHECKED WEEKLY AND RESULTS RECORDED.  
[RULE 1303(a)(1)-BACT, 3004]
21. A FLARE FAILURE ALARM WITH AUTOMATIC BLOWER AND LANDFILL GAS SUPPLY VALVE SHUT-OFF SYSTEM, APPROVED BY THE AQMD, SHALL BE INSTALLED. THIS SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND RESULTS RECORDED.  
[RULE 1303(a)(1)-BACT]
22. AMBIENT METHANE ANALYZERS SHALL BE INSTALLED AROUND THE FLARE STATION IN THE VICINITY OF THE BLOWERS AND POSITIVE PRESSURE LANDFILL GAS PIPELINES TO MONITOR FOR LINE BREAKS AND MAJOR LEAKS. AN ALARM SYSTEM AND SUBSEQUENT BLOWER SHUTDOWN SHALL BE ACTIVATED BY ANY ONE OF THE MONITORS WHEN SPECIFIED CONCENTRATIONS ARE MEASURED. THIS SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND RESULTS RECORDED.  
[RULE 1303(a) (1)-BACT]
23. WITHIN 180 DAYS FROM INITIAL STARTUP, AND ANNUALLY THEREAFTER, UNLESS OTHERWISE APPROVED BY THE AQMD, APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH AQMD TEST PROCEDURES AND FURNISH THE AQMD WRITTEN RESULTS OF SUCH PERFORMANCE TESTS. WRITTEN RESULTS SHALL BE SUBMITTED WITHIN 45 DAYS OF INITIAL TEST. WRITTEN NOTICE OF THE PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD 10 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE AQMD FOR APPROVAL AT LEAST 30 DAYS PRIOR TO START OF TESTS. THE TESTS SHALL BE CONDUCTED AT THE MAXIMUM RATED HEAT INPUT WITH THE AS FUELED MIXTURE OF LANDFILL GAS

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICTS-PALOS VERDES

AND NATURAL GAS. THE TEST SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE INLET GAS TO THE FLARE AND THE EXHAUST OF THE FLARE FOR:

- A. METHANE
  - B. TOTAL NON-METHANE ORGANICS
  - C. OXIDES OF NITROGEN (EXHAUST ONLY)
  - D. CARBON MONOXIDE (EXHAUST ONLY)
  - E. TOTAL PARTICULATES (EXHAUST ONLY)
  - F. HYDROGEN SULFIDE (INLET ONLY)
  - G. C1 THROUGH C3 SULFUR COMPOUNDS (SPECIATED)
  - H. CARBON DIOXIDE
  - I. RULE 1150.1, TABLE 1 COMPOUNDS
  - J. OXYGEN
  - K. NITROGEN
  - L. MOISTURE CONTENT
  - M. TEMPERATURE
  - N. FLOW RATE
- [RULE 1303(b)(2)-OFFSET, 1401]

24. EMISSIONS RESULTING FROM THE FLARE SHALL NOT EXCEED THE FOLLOWING:

| POLLUTANT      | LBS/HR |
|----------------|--------|
| ROG, AS HEXANE | 1.23   |
| NOX            | 1.89   |
| SOX            | 3.39   |
| CO             | 4.46   |
| PM             | 1.15   |

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

25. THE OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE RELEASE OF LANDFILL GAS INTO THE ATMOSPHERE. ANY BREAKDOWN OR MALFUNCTION WHICH RESULTS IN EMISSION OF LANDFILL GAS SHALL BE REPORTED TO THE AQMD WITHIN ONE HOUR AFTER OCCURRENCE OR WITHIN ONE HOUR OF THE TIME THE OPERATING PERSONNEL KNEW OR REASONABLY SHOULD HAVE KNOWN OF THE OCCURRENCE. IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSIONS INTO THE ATMOSPHERE.
- [RULE 402, 430]

26. ALL RECORDS SHALL BE KEPT FOR A PERIOD OF AT LEAST FIVE (5) YEARS AND SHALL BE MADE AVAILABLE TO THE AQMD UPON REQUEST.
- [RULE 1150.1, 303(b)(2)-OFFSET]

### Emissions and Requirements:

27. NMOC: 20 PPMV OR 98 % WEIGHT REDUCTION, RULE 1150.1, 40 CFR 63 SUBPART AAAA  
NOX: 0.025 LBS/MMBTU, RULE 1303(a)(1)-BACT  
SOx: 150 PPMV, RULE 431.1  
CO: 0.06 LBS/MMBTU, RULE 1303(a)(1)-BACT

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICTS-PALOS VERDES**

CO: 2000 PPMV, RULE 407  
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
PM: 0.1 GR/SCF, RULE 404

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules specified below. The operator shall comply with all conditions specified in the approval of these plans .

Documents pertaining to the plan applications listed below are available for public review at AQMD Headquarters. Any changes to plan applications will require permit modification in accordance with Title V permit revision procedures.

List of approved plans:

| Application | Rule   |
|-------------|--------|
| 343040      | 1150.1 |
| 526306      | 3003   |

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.



# South Coast Air Quality Management District

21865 E. Copley Drive, Diamond Bar, CA 91765-4182  
(909) 396-2000 • <http://www.aqmd.gov>

June 9, 2000

LA CO, SANITATION DISTRICTS  
P O BOX 4998  
WHITTIER, CA 90607-4998

Attention: CHARLOTTE NESBIT

## RULE 1150.1 COMPLIANCE PLAN

Reference is made to your Application for a Rule 1150.1 Compliance Plan for the following landfill.

|                   |                       |           |                |
|-------------------|-----------------------|-----------|----------------|
| Facility ID:      | 24520                 | Sector:   | LL             |
| Application No:   | 343040                | Phone No: | (562) 699-7411 |
| Common Name:      | Palos Verdes          |           |                |
| Location Address: | 25706 HAWTHORNE BLVD  |           |                |
| City:             | ROLLING HILLS ESTATES | , CA      | 90274-2514     |

South Coast Air Quality Management District (AQMD) has reviewed your application and approved the following alternatives to Rule 1150.1 requirements for your landfill. Rule 1150.1 Compliance Plans may be submitted by each owner or operator responsible for that section of the rule directly under their control, or by the owner or operator responsible for the entire landfill. Compliance under the alternative provision is achieved if only one owner or operator with responsibility submits a compliance plan for the applicable section of the rule. Only one alternative to each rule requirement shall be allowed for multiple Compliance Plans issued to one landfill. The approved alternative shall be written into each Compliance Plan. The AQMD reserves the right to deny any or all of these alternatives if it is determined that the alternative(s) allow emissions from the landfill that would not have occurred if the owner or operator was complying with the rule requirements.

Where no Rule 1150.1 alternatives are specified below, compliance with provisions of Rule 1150.1 is required. You are further advised that other governmental agencies may require approval for the operation of this landfill and it is the responsibility of the

applicant to obtain approval from each agency. This compliance plan will remain in force until either a new plan is filed and approved or the applicant is notified by the Executive Officer of revisions to this plan. The AQMD shall not be responsible or liable for any losses resulting from measures required or taken pursuant to the requirements of this approved Rule 1150.1 Compliance Plan.

If you have any questions regarding this matter, please phone Hassan Namaki, Air Quality Engineer at (909) 396-2699.

Sincerely,

Larry M. Bowen  
Senior Manager

cc: Michael Haynes  
Air Quality Inspector

Issue Number: 1

(Adopted April 5, 1985)(Amended April 10, 1998)  
(Amended March 17, 2000)

**RULE 1150.1. CONTROL OF GASEOUS EMISSIONS FROM  
MUNICIPAL SOLID WASTE LANDFILLS**

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**The reference numbers in the left hand margin of the rule refer to sections of  
40 CFR, Part 60, Subpart WWW (NSPS)**

**RULE 1150.1. CONTROL OF GASEOUS EMISSIONS FROM MUNICIPAL  
SOLID WASTE LANDFILLS**

(a) Purpose

The rule is intended to limit Municipal Solid Waste (MSW) landfill emissions to prevent public nuisance and possible detriment to public health caused by exposure to such emissions.

(b) Applicability

This rule applies to each active and inactive MSW landfill.

(c) Definitions

Terms used but not defined in this rule have the meaning given them in 40 CFR, Part 60, Section 60.751 (Definitions):

- (1) ADMINISTRATOR means the Executive Officer of the South Coast Air Quality Management District (District).
- (2) ACTIVE LANDFILL means an MSW landfill that has received waste on or after November 8, 1987.
- (3) BACKGROUND means the local ambient concentration of total organic compounds (TOC) measured as methane determined by holding the instrument probe approximately 5 to 6 feet above the landfill surface.
- (4) CLOSED LANDFILL means a disposal facility that has ceased accepting waste and was closed in accordance with all applicable federal, state and local statutes, regulations, and ordinances in effect at the time of closure.
- (5) INACTIVE LANDFILL means an MSW landfill where solid waste had been disposed of before November 8, 1987 and no more subsequent solid waste disposal activity has been conducted within the disposal facility.
- (6) MSW LANDFILL means an entire disposal facility in a contiguous geographical space where solid waste is placed in or on land. An MSW landfill may be either active or inactive.
- (7) OPERATOR means the person:
  - (A) Operating the MSW landfill, or
  - (B) Operating the MSW landfill gas collection or control system.
- (8) OWNER means the person holding Title to the property.

- (9) PERIMETER means the outer boundary of the entire waste disposal property.
- (10) PROFESSIONAL ENGINEER means an engineer holding a valid certificate issued by the State of California Board of Registration for Professional Engineers and Land Surveyors or a state offering reciprocity with California.
- (11) TOXIC AIR CONTAMINANT (TAC) means an air contaminant which has been identified as a hazardous air pollutant pursuant to Section 7412 of Title 42 of the United States Code; or has been identified as a TAC by the Air Resources Board pursuant to Health and Safety Code Section 39655 through 39662, or which may cause or contribute to an increase in mortality or an increase in serious illness, or potential hazard to human health.

(d) Active Landfill Design and Operation Requirements

The MSW landfill owner or operator shall comply with the provisions of paragraphs (d)(1) through (d)(11):

- (1) If a valid Permit to Construct or Permit to Operate for the collection and control system that meets the requirements of subparagraphs (d)(1)(A) through (d)(1)(C) has not been issued by the District by the adoption date of this rule, submit a site-specific collection and control system design plan. The design plan shall be prepared by a Professional Engineer and sent to the Executive Officer with applications for Permits to Construct or Permits to Operate no later than one year after the adoption of this rule. The Executive Officer shall review the collection and control system design and either approve it, disapprove it, or request that additional information be submitted.

752(b)(2)(i)  
752(b)(2)(i)(D)

- (A) The collection and control system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that requires control, to minimize migration of subsurface gas to comply with paragraph (d)(4), and to collect gas at an extraction rate to comply with paragraphs (d)(5) and (d)(6). For the purposes of calculating the maximum expected gas generation flow rate from the landfill, one of the equations in 40 CFR, Part 60, Section 60.755(a)(1) shall be used. Another method may be used

752(b)(2)(ii)(A)(1), (3), (4)  
755(a)(1)  
758(b)(1)(i)

to determine the maximum gas generation flow rate, if the method has been approved by the Executive Officer.

- (B) If a valid Permit to Construct or Permit to Operate has not been issued by the District for the collection and control system, the collection and control system design plan shall either conform with specifications for active collection systems in 40 CFR, Part 60, Section 60.759 or include a demonstration to the Executive Officer's satisfaction of the sufficiency of the alternative provisions describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. Alternatives to this rule shall be submitted as specified in subdivision (i).

752(b)(2)(i)(C)  
756(e)

- (C) The design plan shall provide for the control of collected MSW landfill emissions through the use of a collection and control system meeting the applicable requirements in clauses (d)(1)(C)(i) and (d)(1)(C)(ii):

752(b)(2)(iii)

- (i) Route all the collected gas to a control system designed and operated to either reduce NMOC by at least 98 percent by weight or reduce the outlet NMOC concentration to less than 20 parts per million by volume (ppmv), dry basis as hexane at 3 percent oxygen. The required reduction efficiency or ppmv shall be established by an initial source test, required under 40 CFR, Part 60, Section 60.8 and annually thereafter using the test methods specified in paragraph (j)(1). The annual source test shall be conducted no later than 45 days after the anniversary date of the initial source test.

**ALTERNATIVE: THE FOLLOWING FREQUENCY SHALL BE USED FOR SOURCE TESTING IDENTICAL FLARES LISTED ON ONE PERMIT TO OPERATE AND FOR SOURCE TESTING IDENTICAL BOILERS WHERE IDENTICAL MEANS, BUT IS NOT LIMITED TO: MAKE AND MODEL, BURNERS, OPERATIONAL SETTINGS, MAINTENANCE AND FUELS.**

**SINGLE BACKUP FLARE- AFTER EVERY 4000 HOURS OF OPERATION.**

**MULTIPLE BACKUP FLARES - ONE FLARE AFTER EVERY 4000 HOURS OF CUMULATIVE BACKUP OPERATION FOR ALL FLARES LISTED ON THE PERMIT TO OPERATE. ALTERNATE TESTING OF THE FLARES SUCH THAT EACH FLARE IS TESTED.**

**NON-BACKUP FLARES AND BOILERS: AT LEAST ONE FLARE AND BOILER EVERY YEAR AND THEN ALTERNATE ALL OTHERS SUCH THAT EACH IS SOURCE TESTED AT LEAST ONCE EVERY THREE YEARS.**

(I) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. Where the landfill gas is the primary fuel for the boiler or process heater, introduction of the landfill gas stream into the flame zone is not required.

(II) The control device shall be operated within the operating parameter ranges established during the initial or most recent compliant source test. The operating parameters to be monitored are specified under paragraph (e)(6).

(ii) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of clause (d)(1)(C)(i).

(2) Install and operate the collection and control system no later than 18 months after the submittal of the design plan.

752(b)(2)(ii)

(3) If the District has not issued prior written approval for subsurface refuse boundary sampling probes, design and install subsurface refuse boundary sampling probes as specified in Section 1.1, Attachment A, to determine

whether landfill gas migration exists. Installation of the refuse boundary probes shall be no later than 18 months after the submittal of the collection and control design plan as specified in paragraph (d)(1).

**ALTERNATIVE: THE SUBSURFACE REFUSE BOUNDARY PROBES APPROVED IN THE PAST OR SUBMITTED WITH THIS APPLICATION, ARE APPROVED. ALL FUTURE DESIGNS AND INSTALLATIONS NOT MEETING THE RULE REQUIREMENTS, SHALL BE SUBMITTED FOR AQMD PRE-CONSTRUCTION APPROVAL WITH A COMPLIANCE PLAN APPLICATION.**

- (4) Operate the collection system to prevent the concentration of TOC measured as methane from exceeding five percent by volume in the subsurface refuse boundary sampling probes constructed for the purposes of detecting lateral migration of landfill gas away from the waste mass, as determined from collected samples.
- (5) Operate the collection system to prevent the concentration of TOC measured as methane from exceeding 50 ppmv as determined by integrated samples taken on numbered 50,000 square foot landfill grids.
- (6) Operate the collection system to prevent the concentration of TOC measured as methane from exceeding 500 ppmv above background as determined by instantaneous monitoring at any location on the landfill, except at the outlet of any control device.
- (7) Operate the control or treatment system at all times when the collected gas is routed to the system. In the event the collection, treatment or control system is inoperable, the gas conveying system shall be shut down and all valves in the collection, treatment and control system contributing to venting of the gas to the atmosphere shall be closed no later than one hour after such breakdown or no later than one hour after the time the owner or operator knew or reasonably should have known of its occurrence.
- (8) Operate the collection, treatment and control system until all the exemption criteria under subdivision (k) has been met and the reports specified in subparagraph (f)(2)(D) have been submitted to the Executive Officer.
- (9) Design, install and operate a wind speed and direction monitoring system with a continuous recorder of the requirements in subparagraphs (d)(9)(A) and (d)(9)(B), at a site which is representative of the wind speed and

direction in the areas being sampled. The wind velocity shall be recorded throughout the sampling period. The wind direction transmitter shall be oriented to true north using a compass. The monitor shall be installed according to the criteria set forth in 40 CFR, Part 50.

- (A) For wind speed use a 3 cup assembly, with a range of 0 to 50 miles per hour, with a threshold of 0.75 mile per hour or less.
- (B) For wind direction use a vane, with a range of 0 to 540 degrees azimuth, with a threshold of plus-minus 2 degrees.

**ALTERNATIVE: THE WIND SPEED MAY BE MEASURED WITH AN APPROVED HAND-HELD ANEMOMETER DURING INTEGRATED SURFACE MONITORING.**

- (10) Comply with the requirements of Section 21140 – Final Cover, of California Code of Regulations Title 27, Subchapter 5 – Closure and Post-Closure Maintenance, upon closure of a MSW landfill unit, incorporated herein as Attachment B.
- (11) Comply with the requirement of Section 20200 – State Water Resources Conservation Board (SWRCB) Applicability and Classification Criteria of California Code of Regulations Title 27, Article 2 – SWRCB, Waste Classification and Management, with respect to the disposal of liquids and semi-solid waste at Class III landfills, incorporated herein as Attachment C.

(e) **Active Landfill Sampling and Monitoring Requirements**

The MSW landfill owner or operator shall comply with the provisions of paragraphs (e)(1) through (e)(6), after installation of the landfill gas control system:

- (1) Monitor and collect samples for analysis as specified in Section 1.0, Attachment A, to determine the concentrations of TOC and TAC each month from the subsurface refuse boundary sampling probes, to assure continued compliance. Any measurement of 5 percent TOC by volume or greater shall be recorded as an exceedance and the actions specified in subparagraphs (e)(1)(A) through (e)(1)(C) shall be taken.

**ALTERNATIVE: TOC MONTHLY/TAC QUARTERLY**

- (A) The probe shall be identified and the location recorded as specified in Section 1.6, Attachment A.

- (B) Adjustments to the vacuum of adjacent wells to increase the gas collection in the vicinity of the probe with the exceedance shall be made and the probe resampled no later than 10 calendar days after detecting the exceedance.
  - (C) If the resampling of the probe shows a second exceedance, additional corrective action shall be taken and the probe shall be resampled again no later than 10 calendar days after the second exceedance. If the resampling shows a third exceedance, it is a violation unless the owner or operator determines that a new or replacement gas collection well is needed. The owner or operator must install and operate the new or replacement well no later than 45 days after detecting the third exceedance.
- (2) Collect monthly integrated samples for analysis as specified in Section 2.0, Attachment A, to determine the concentrations of TOC and TAC from the landfill surface, to assure continued compliance. Any reading of 50 ppmv or greater shall be recorded as an exceedance and the actions specified in subparagraphs (e)(2)(A) through (e)(2)(C) shall be taken.

**ALTERNATIVE: QUARTERLY**

- (A) The grid shall be identified and the location recorded as specified in Section 2.8, Attachment A.
  - (B) Cover maintenance or adjustments to the vacuum of adjacent wells to increase the gas collection in the vicinity of the grid with the exceedance shall be made and the grid resampled no later than 10 calendar days after detecting the exceedance. If measurable precipitation occurs within the 10 calendar days, all resampling and analysis shall comply with Section 2.2.2, Attachment A.
  - (C) If the resampling of the grid shows a second exceedance, additional corrective action shall be taken and the grid shall be resampled again no later than 10 calendar days after the second exceedance. If the resampling shows a third exceedance, it is a violation unless the owner or operator determines that a new or replacement gas collection well is needed. The owner or operator must install and operate the new or replacement well no later than 45 days after detecting the third exceedance.
- (3) Monitor instantaneously as specified in Section 3.0, Attachment A, to determine the concentration of TOC each calendar quarter, to assure

continued compliance. Any reading of 500 ppmv TOC or greater shall be recorded as an exceedance and the actions specified in subparagraphs (e)(3)(A) through (e)(3)(C) shall be taken. Any closed landfill that has no monitored exceedances of the 500 ppmv standard in three consecutive quarterly monitoring periods may monitor annually. Any reading of 500 ppmv TOC or more above background detected during the annual monitoring or compliance inspections shall result in a return to quarterly monitoring for that landfill.

- (A) The location of each monitored exceedance shall be marked on the landfill or identified by using a global positioning system and the location recorded as specified in Section 3.4, Attachment A.
  - (B) Cover maintenance or adjustments to the vacuum of adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored no later than 10 calendar days after detecting the exceedance.
  - (C) If the remonitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be remonitored again no later than 10 days after the second exceedance. If the remonitoring shows a third exceedance, it is a violation unless the owner or operator determines that a new or replacement gas collection well is needed. The owner or operator must install and operate the new or replacement well no later than 45 days after detecting the third exceedance.
- (4) Collect a monthly landfill gas sample for analysis as specified in Section 4.0, Attachment A, to determine the concentrations of TOC and TAC from the main gas collection header line entering the gas treatment and/or gas control systems.

**ALTERNATIVE: QUARTERLY**

- (5) Collect monthly ambient air samples for analysis as specified in Section 5.0, Attachment A, to determine the concentrations of TOC and TAC from the landfill property boundary.

**ALTERNATIVE: QUARTERLY**

- (6) Monitor the collection and control system equipment specified under subparagraphs (e)(6)(A) and (e)(6)(B) in order to comply with subparagraph (d)(1)(C).

756(b)

(A) For an enclosed combustor install, calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

(i) A temperature monitoring device equipped with a continuous recorder and having an accuracy of plus-minus 1 percent of the temperature being measured expressed in degrees Celsius or Fahrenheit. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.

(ii) At least one gas flow rate measuring device that shall record the flow to the control device(s) at least every 15 minutes.

756(d)

(B) For a device other than an enclosed combustor, demonstrate compliance with subparagraph (d)(1)(C) by providing information satisfactory to the Executive Officer describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. Alternatives to this rule shall be submitted as specified in subdivision (i). The Executive Officer may specify additional appropriate monitoring procedures.

(f) Active Landfill Recordkeeping and Reporting Requirements

758(a)

The MSW landfill owner or operator shall keep all records up-to-date, readily accessible and maintained for at least a period of 5 years and made available to District staff upon request. Records older than 2 years may be maintained off-site, if they are retrievable no later than 4 hours after request.

(1) The records required in subparagraphs (f)(1)(A) through (f)(1)(H) shall be maintained at the facility.

**ALTERNATIVE: RECORDS SHALL BE MAINTAINED AT THE JOINT ADM. OFFICE AND MADE AVAILABLE WITHIN 4 HOURS AFTER REQUEST.**

758(b)

(A) For the life of the control equipment as measured during the initial source test or compliance determination:

(i) The control device vendor specifications.

(ii) The maximum expected gas generation flow rate as calculated in subparagraph (d)(1)(A).

(iii) When seeking to demonstrate compliance with subparagraph (d)(1)(C) through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

(I) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the source test.

**ALTERNATIVE: FOR FLARE(S),  
CONTINUOUSLY RECORD THE  
INSTANTANEOUS COMBUSTION  
TEMPERATURE.**

**FOR BOILERS AND TURBINES THIS  
REQUIREMENT IS NOT APPLICABLE.**

(II) The reduction of NMOC determined as specified in clause (d)(1)(C)(i) achieved by the control device.

(iv) When seeking to demonstrate compliance with subclause (d)(1)(C)(i)(I) through the use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the source testing.

(B) The data required to be recorded under Section 1.6, Attachment A, for subsurface refuse boundary sampling probes and all remedial actions taken for exceedances of the 5 percent TOC standard required in paragraph (d)(4).

(C) The data required to be recorded under Section 2.8, Attachment A, for integrated samples and all remedial actions taken for exceedances of the 50 ppmv TOC standard required in paragraph (d)(5).

(D) The data required to be recorded under Section 3.4, Attachment A, for instantaneous monitoring and all remedial actions taken for exceedances of the 500 ppmv TOC standard required in paragraph (d)(6).

758(e)

(E) The data required to be recorded under Section 4.5, Attachment A, for landfill gas samples collected from the main gas collection header line entering the gas treatment and/or gas control systems.

(F) The data required to be recorded under Section 5.7, Attachment A, from ambient air collected at the landfill property boundary.

757(f)(3)

(G) A description and the duration of all periods when the collection, treatment or control device was not operating for a period exceeding one hour and the length of time the system was not operating.

758(c)

(H) Continuous records of the equipment operating parameters specified to be monitored under paragraph (e)(6) as well as records for periods of operation during which the parameter boundaries established during the most recent source test are exceeded.

(i) The following constitute exceedances that shall be recorded:

(I) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28° C (82° F) below the average combustion temperature during the most recent source test at which compliance with subparagraph (d)(1)(C) was determined.

(II) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under clause (f)(1)(A)(iv).

(ii) Records of the indication of flow to the control device specified under paragraph (e)(6)(A)(ii).

(iii) Each owner or operator who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with subparagraph (d)(1)(C) shall keep records of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant

to other State, local, Tribal, or Federal regulatory requirements.)

- (2) The reports required in subparagraphs (f)(2)(A) through (f)(2)(D) shall be submitted to the Executive Officer (Either paper copy or electronic formats are acceptable).
- (A) The initial source test report no later than 180 days after start-up and each succeeding complete annual source test report no later than 45 days after the anniversary date of the initial source test, for all control systems required in subparagraph (d)(1)(C).
- (B) A report no later than 45 days after the last day of each calendar quarter with the information required in clauses (f)(2)(B)(i) and (f)(2)(B)(ii).
- (i) All exceedances of the emission standards required in paragraphs (d)(4), (d)(5) and (d)(6) in the format required under Sections 1.6, 2.8 and 3.4, Attachment A. All exceedance resampling/remonitoring and each corrective action required under paragraphs (e)(1), (e)(2) and (e)(3). If there are no exceedances, submit a letter stating there were no exceedances for that quarter.
- (ii) All TAC analyses required in paragraphs (e)(1) through (e)(5).
- (C) A closure report to the Executive Officer no later than 30 days after waste acceptance cessation. The Executive Officer may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR, Part 258, Section 258.60 or the applicable federal, state and local statutes, regulations, and ordinances in effect at the time of closure. If a closure report has been submitted to the Executive Officer, no additional wastes shall be placed into the landfill without filing a notification of modification as described under 40 CFR, Part 60, Section 60.7(a)(4).
- (D) A decommissioning report to the Executive Officer 30 days prior to well capping, removal or cessation of operation of the collection, treatment or control equipment. The decommissioning report shall contain all of the items as specified in clauses (f)(2)(D)(i) through (f)(2)(D)(iii):

757(d)

757(e)

- (i) A copy of the closure report submitted in accordance with subparagraph (f)(2)(C).
- (ii) A copy of the initial source test report demonstrating that the collection and control system has been installed a minimum of 15 years.
- (iii) All records needed to verify the landfill meets the exemption criteria under subdivision (k).

(g) Active Landfill Compliance Schedule

The MSW landfill owner or operator shall comply with the active landfill requirements of this rule or submit alternatives to this rule as specified in subdivision (i) no later than 90 days after April 10, 1998. Rule 1150.1 Compliance Plans previously submitted to the District shall remain in effect during the 90 days after April 10, 1998, or until the owner or operator has received an approved alternative Rule 1150.1 Compliance Plan submitted as specified in subdivision (i).

(h) Inactive Landfill Requirements

The MSW landfill owner or operator shall comply with either the applicable requirements in paragraphs (h)(1) and (h)(2) or submit alternatives to this rule as specified in subdivision (i).

- (1) Inactive landfills that have a landfill gas collection system shall meet all of the active landfill requirements. For those inactive landfills without a gas collection system and determined to need one, meet all of the active landfill requirements, except the collection and control system design plan and applications for permits shall be submitted no later than one year after notification by the Executive Officer.
- (2) Inactive landfills without a gas collection system:
  - (A) Upon discovery of TOC measured as methane exceeding 500 ppmv at any location on the landfill surface, apply mitigation measures such as compaction, additional cover, and/or watering to reduce the emissions to less than 500 ppmv. The procedure used for measurement of TOC shall meet the requirements of Section 3.0, Attachment A.
  - (B) Submit the following Data and/or meet the required action in paragraph (h)(1):

- (i) At any time after the adoption of this rule, but not later than 30 days after the receipt of a request, submit to the Executive Officer a screening questionnaire pursuant to California Air Resources Board Health and Safety Code (H & S) 41805.5.
- (ii) No later than 90 days after the date of a second request, submit to the Executive Officer a solid waste air quality assessment test (SWAT) report pursuant to H & S 41805.5, to determine whether or not a landfill gas collection and control system and/or a subsurface refuse boundary probe sampling system shall be required to be installed.
- (iii) If additional time is needed to provide the information required in clauses (h)(2)(B)(i) and (h)(2)(B)(ii), a written request for an extension may be submitted in writing to the Executive Officer, indicating the amount of time that is needed to obtain such information. Such a request for an extension may be submitted to the Executive Officer no later than 30 days after the receipt of the Executive Officer's requests as specified in clauses (h)(2)(B)(i) and (h)(2)(B)(ii).
- (iv) Upon notification by the Executive Officer that a landfill gas collection and control system and/or a subsurface refuse boundary probe sampling system shall be required, comply with paragraph (h)(1).

(i) Alternatives:

Because of the many site-specific factors involved in the design and operation of landfill gas systems, alternatives to the requirements, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of this rule may be necessary. All alternatives to the requirements of this rule shall be submitted to the Executive Officer in a Rule 1150.1 Compliance Plan. The Executive Officer shall review the Rule 1150.1 Compliance Plan and either approve it, disapprove it, or request that additional information be submitted. The Executive Officer shall deny the plan unless he determines that it will provide equivalent levels of emission control and enforceability, as would compliance with the requirements of this rule.

752(b)(2)(i)(B)

## (j) Test Methods

## (1) Methods of Analysis

754(d)

(A) Either U.S. EPA Reference Method 25 or U.S. EPA Reference Method 18, 40 CFR, Part 60, Appendix A shall be used to determine the efficiency of the control system in reducing NMOC by at least 98 percent by weight. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The equation in subparagraph (j)(1)(B) shall be used to calculate efficiency.

(B) U.S. EPA Reference Method 25, 40 CFR, Part 60, Appendix A shall be used to determine the efficiency of the control system in reducing the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane at 3 percent oxygen. Until, but not after District Method 25.3 has met equivalency as specified in paragraph (j)(2), U.S. EPA Reference Method 18, 40 CFR, Part 60, Appendix A may be used for this source test. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

$\text{NMOC}_{\text{in}}$  = mass of NMOC entering control device

$\text{NMOC}_{\text{out}}$  = mass of NMOC exiting control device

## (2) Equivalent Test Methods

Any other method demonstrated to be equivalent and approved in writing by the Executive Officers of the District, the California Air Resources Board (CARB), and the Regional Administrator of the United States Environmental Protection Agency (U.S. EPA), Region IX, or their designees, may be used to determine compliance with this rule.

## (k) Exemptions

An MSW landfill may be temporarily exempt from all or any portion of the requirements of this rule if the owner or operator can demonstrate to the Executive Officer that the MSW landfill emissions meet the requirements of paragraphs

(k)(1) through (k)(4). Temporary exemption may be independently determined by the Executive Officer, if the MSW landfill emissions meet the requirements of paragraphs (k)(1) through (k)(4). MSW landfills issued temporary exemption letters by the Executive Officer shall remain exempt, subject to periodic review, provided:

- (1) The MSW landfill complies with the requirements of paragraphs (d)(4), (d)(5) and (d)(6).
- (2) The MSW landfill emits less than 55 tons per year of NMOC as specified in 40 CFR, Part 60, Section 60.752(b) or, for a closed landfill, as specified in 40 CFR, Part 60, Section 60.752(b)(2)(v)(C).
- (3) The MSW landfill constitutes an insignificant health risk. In making this determination the Executive Officer shall consider the listed factors in subparagraphs (k)(3)(A) through (k)(3)(G). Where not specified, in evaluating the cancer risks and hazard indexes, the Executive Officer shall be guided by the definitions in District Rule 1401 - New Source Review of Carcinogenic Air Contaminants, and Rule 1402 - Control of Toxic Air Contaminants From Existing Sources:
  - (A) The proximity to, and any adverse impacts on, residences, schools, hospitals or other locations or structures which have children, or elderly or sick persons.
  - (B) The emission migration beyond the landfill property boundary.
  - (C) The complaint history.
  - (D) The age and closure date.
  - (E) The amount and type of waste deposited.
  - (F) That the emissions of carcinogenic air contaminants, specified in Table 1, Attachment A, from the landfill will not result in a maximum individual cancer risk greater than one in one million ( $1 \times 10^{-6}$ ) at any receptor location.
  - (G) That the emissions of TAC, specified in Table 1, Attachment A, from the landfill will not result in a total acute or chronic Hazard Index of greater than 1.
- (4) The MSW landfill is in compliance with District Nuisance Rule 402.

Such temporary exemption shall be reviewed periodically by the Executive Officer, to consider the land use surrounding the landfill and gaseous emissions,

and the impact on the public. Depending upon the results of the review, the Executive Officer may extend or terminate the exemption.

(1) Loss of Exemption

If an MSW landfill should have its temporary exemption terminated, the owner or operator shall comply with the active landfill requirements of this rule.

ATTACHMENT A

1.0 SUBSURFACE REFUSE BOUNDARY SAMPLING PROBES  
Paragraph (d)(4) and (e)(1) Requirements of Rule 1150.1

1.1 Subsurface Probe Design and Installation

Landfills which are subject to Rule 1150.1 must install and maintain a subsurface refuse boundary probe sampling system of adequate design to determine if gas migration exists for the ultimate purpose of preventing surface emissions. The California Integrated Waste Management Board also requires the installation of refuse boundary probes for purposes of detecting and ultimately preventing subsurface migration of landfill gas past the permitted property boundary of the landfill/disposal site as well as the prevention of the accumulation of landfill gas in on-site structures. It is the District's intent that the subsurface refuse boundary probes required by paragraph (d)(3) of Rule 1150.1 be designed and installed in such a manner as to comply with the requirements of the California Integrated Waste Management Board (whenever possible) and Sections 1.1.1 through 1.1.4.

1.1.1 The probes shall be installed within the landfill property line and outside the refuse disposal area.

1.1.2 Wherever accessible, the probes shall be located no further than 100 feet from the refuse boundary.

**ALTERNATIVE: WHEREVER ACCESSIBLE AND THE PROBES ARE GREATER THAN 100 FEET FROM THE REFUSE, MONITOR INSTANTANEOUSLY FROM THE REFUSE BOUNDARY TO THE PROBE, USING THE GRID METHOD EVERY QUARTER AND WHEN PROBES EXCEED 2% TOC.**

1.1.3 The spacing between probes shall be based on the adjacent land use no further than 1320 feet (1/4 mile) from the refuse boundary and shall be determined as follows:

| LAND USE                                   | SPACING   |
|--|-----------|
| Residential/Commercial                     | 100 feet  |
| Public Access                              | 500 feet  |
| Undeveloped Open Space, (No Public Access) | 650 feet  |
| Landfill with Liners                       | 1000 feet |

1.1.4 Each probe shall be capped, sealed, have a sampling valve and be of multiple-depth design for which the depth shall be determined based on the depth of refuse no further than 500 feet from the probe as follows:

|              |  |
|--------------|--|
| First Depth  | 10 feet below surface.   |
| Second Depth | 25% of refuse depth or 25 feet below surface, whichever is deeper. |
| Third Depth  | 50% of refuse depth or 50 feet below surface, whichever is deeper. |
| Fourth Depth | 75% of refuse depth or 75 feet below surface, whichever is deeper. |

Second, third, or fourth depth probes may be deleted if the required depth of such probe is deeper than the depth of the refuse.

1.2 Number of Samples

All refuse boundary gas probes at each depth shall be monitored monthly for TOC measured as methane using a portable flame ionization detector (FID) meeting the requirements of Section 3.2 and with a tube connected to the probe sampling valve. In addition, samples shall be taken as specified in Section 1.2.1 or 1.2.2 to determine the concentration of both TOC and TAC. The Executive Officer may require additional probes to be sampled upon written request.

1.2.1 If the TOC concentration measured with the FID does not exceed 5% by volume in any of the probes, collect one bag sample from one probe with the highest concentration, or

**ALTERNATIVE: IF THE TOC CONCENTRATION MEASURED WITH THE FID OR APPROVED ALTERNATIVE DOES NOT EXCEED 5% BY VOLUME IN ANY OF THE PROBES, NO BAG SAMPLES ARE REQUIRED FOR TOC ANALYSIS. HOWEVER, EACH QUARTER COLLECT ONE BAG SAMPLE FOR TAC ANALYSIS FROM THE PROBE WITH THE HIGHEST CONCENTRATION DURING ANY ONE OF THE MONTHLY MONITORING PERIODS, OR**

1.2.2 If the TOC concentration measured with the FID for any of the probes exceeds 5% by volume, collect one bag sample per probe from the probes with the highest concentrations above 5% by volume, from at least five probes.

**ALTERNATIVE: IF THE TOC CONCENTRATION MEASURED WITH THE FID OR APPROVED ALTERNATIVE EXCEEDS 5% BY VOLUME IN ANY OF THE PROBES, EACH QUARTER COLLECT ONE BAG SAMPLE FOR TOC/TAC ANALYSIS FROM THE PROBE WITH THE HIGHEST CONCENTRATION DURING ANY ONE OF THE MONTHLY MONITORING PERIODS.**

1.3 Subsurface Refuse Boundary Probe Sampling Procedure

1.3.1 Prior to collecting gas samples, evacuate the probe (the probes must be sealed during evacuation) until the TOC concentration remains constant for at least 30 seconds.

1.3.2 The constant TOC concentration shall be measured using an FID that meets the requirements in Section 3.2.

**ALTERNATIVE: PORTABLE ANALYZERS ON AN APPROVED LIST OF EQUIPMENT MAINTAINED BY THE AQMD MAY BE USED AS ALTERNATIVES FOR THE SAMPLER/INSTRUMENT REQUIREMENTS OF THIS RULE.**

1.3.3 Collect approximately a 10-liter gas sample in a Tedlar (Dupont trade name for polyvinyl) bag or equivalent container over a continuous ten-minute period using the evacuated container sampling procedure described in Section 7.1.1 of EPA Method 18 or direct pump sampling procedure described in Section 7.1.2 of EPA Method 18. The container shall be LIGHT-SEALED.

1.4 Subsurface Refuse Boundary Probe Analytical Procedures

All samples collected shall be analyzed no later than 72 hours after collection for TOC using U.S. EPA Method 25, 40 CFR, Part 60, Appendix A analysis or a portable FID that meets the requirements in Section 3.2 and for the TAC specified in Table 1 and upon written request, Table II, using U.S. EPA Compendium Method TO-14.

1.5 Chain of Custody (Required for samples sent to the lab)

A custody sheet shall accompany the bag samples. Each time a bag changes hands, it shall be logged on the custody sheet with the time of custody transfer recorded. Laboratory personnel shall record the condition of the sample (full,

three-fourths full, one-half full, one-fourth full, or empty). An example of a custody sheet is shown in Figure 4.

1.6 Recording the Results

1.6.1 Record the volume concentration of TOC measured as methane for each individually identified refuse boundary probe (at each depth) and the volume concentration of TAC for selected probes on a quality control sheet as shown in Figure 3. Include a topographic map drawn to scale with the location of both the refuse boundary probes and the gas collection system clearly marked and identified.

1.6.2 Maintain and submit the results as specified in subdivision (f) of Rule 1150.1.

2.0 INTEGRATED LANDFILL SURFACE SAMPLING  
Paragraph (d)(5) and (e)(2) Requirements of Rule 1150.1

2.1 Number of Samples

The number of samples collected will depend on the area of the landfill surface. The entire landfill disposal area shall be divided into individually identified 50,000 square foot grids. One monthly sample shall be collected from each grid for analysis. Any area that the Executive Officer deems inaccessible or dangerous for a technician to enter may be excluded from the sampling grids monitored by the landfill owner or operator. To exclude an area from monitoring, the landfill owner or operator shall file a written request with the Executive Officer. Such a request shall include an explanation of the requested exclusion and photographs of the area. The Executive Officer shall notify the landfill owner or operator in writing of the decision. Any exclusion granted shall apply only to the monitoring requirement. The 50 ppmv limit specified in paragraph (d)(5) of Rule 1150.1 applies to all areas.

**ALTERNATIVE: MONITORING IS NOT REQUIRED FOR THE  
FOLLOWING LANDFILL SURFACES:  
PORTIONS OF SLOPES 30 DEGREES AND GREATER, PAVED  
SURFACES EXCEPT FOR CRACKS, AND THE ACTIVE WORKING  
FACE.**

2.2 Integrated Surface Sampling Conditions

2.2.1. The average wind speed during this sampling procedure shall be five miles per hour or less. Surface sampling shall be terminated when the average wind speed exceeds five miles per hour or the instantaneous wind speed exceeds ten miles per hour. Average wind speed is determined on a 15-minute average.

2.2.2. Surface sampling shall be conducted when the landfill is dry. The landfill is considered dry when there has been no measurable precipitation for the preceding 72 hours prior to sampling. Most major newspapers report the amount of precipitation that has fallen in a 24-hour period throughout the Southern California area. Select the nearest reporting station that represents the landfill location or provide for measurable precipitation collection at the MSW landfill wind monitoring station.

### 2.3 Integrated Surface Sampler Equipment Description

An integrated surface sampler is a portable self-contained unit with its own internal power source. The integrated sampler consists of a stainless steel collection probe, a rotameter, a pump, and a 10-liter Tedlar bag enclosed in a **LIGHT-SEALED CONTAINER** to prevent photochemical reactions from occurring during sampling and transportation. The physical layout of the sampler is shown in Figure 1.

**ALTERNATIVE: THE INTEGRATED SAMPLER SHALL INCLUDE A TEDLAR BAG ANYWHERE FROM ONE TO 10-LITERS IN SIZE.**

An alternate integrated surface sampler may be used, provided that the landfill owner or operator can show an equivalency with the sampler specifications in Section 2.4 and shown in Figure 1. All alternatives shall be submitted as specified in subdivision (i) of Rule 1150.1.

### 2.4 Integrated Surface Sampler Equipment Specifications

2.4.1 Power: Batteries or any other power source.

2.4.2 Pump: The diaphragm shall be made of non-lubricated Viton (Dupont trade name for co-polymer of hexafluoropropylene and vinylidene fluoride) rubber.

2.4.3 Bag: One 10-liter Tedlar bag with a valve. The Tedlar bag shall be contained in a **LIGHT-SEALED CONTAINER**. The valve shall be leak

free and constructed of aluminum, stainless steel, or non-reactive plastic with a Viton or Buna-N (butadiene acrylonitrile co-polymer) o-ring seal.

2.4.4 Rotameter: The rotameter shall be made of borosilicate glass or other non-reactive material and have a flow range of approximately 0-to-1 liter per minute. The scale shall be in milliliters or an equivalent unit. The graduations shall be spaced to facilitate accurate flow readings.

2.4.5 Air Flow Control Orifice: Needle valve in the rotameter.

2.4.6 Funnel: 316 stainless steel.

2.4.7 Fittings, Tubing and Connectors: 316 stainless steel or Teflon.

## 2.5 Integrated Surface Sampling Procedure

2.5.1 An integrated surface sampler as described in Section 2.4 shall be used to collect a surface sample approximately 8-to-10 liters from each grid.

2.5.2 During sampling, the probe shall be placed 0-to-3 inches above the landfill surface.

2.5.3 The sampler shall be set at a flow rate of approximately 333 cubic centimeters per minute

2.5.4 Walk through a course of approximately 2,600 linear feet over a continuous 25-minute period. Figure 2 shows a walk pattern for the 50,000 square foot grid.

## 2.6 Integrated Surface Sample Analytical Procedures

All samples collected shall be analyzed no later than 72 hours after collection for TOC using U.S. EPA Method 25, 40 CFR, Part 60, Appendix A analysis or a portable FID that meets the requirements in Section 3.2. In addition, the samples specified in Section 2.6.1 or 2.6.2 must be analyzed no later than 72 hours after collection for the TAC specified in Table 1 and upon written request, Table II, using U.S. EPA Compendium Method TO-14.

2.6.1 Ten percent of all samples which have a concentration of TOC greater than 50 ppmv as methane, or

2.6.2 Two samples if all samples are 50 ppmv or less of TOC or two samples if there are less than 20 samples above 50 ppmv.

The Executive Officer may require more samples to be tested for TAC if he determines there is a potential nuisance or public health problem.

## 2.7 Chain of Custody (Required for samples sent to the lab)

A custody sheet shall accompany the bag samples. Each time a bag changes hands, it shall be logged on the custody sheet with the time of custody transfer recorded. Laboratory personnel shall record the condition of the sample (full, three-fourths full, one-half full, one-fourth full, or empty). An example of a custody sheet is shown in Figure 4.

2.8 Recording the Results

2.8.1 Record the volume concentration of both TOC measured as methane for each grid and the volume concentration for the required TAC on a quality control sheet as shown in Figure 3. Include a topographic map drawn to scale with the location of the grids and the gas collection system clearly marked and identified.

2.8.2 Record the wind speed during the sampling period using the wind speed and direction monitoring system required in paragraph (d)(9) of Rule 1150.1.

2.8.3 Maintain and submit the results as specified in subdivision (f) of Rule 1150.1.

3.0 **INSTANTANEOUS LANDFILL SURFACE MONITORING**  
Subparagraph (d)(6) and (e)(3) Requirements of Rule 1150.1

3.1 Monitoring Area

The entire landfill disposal area shall be monitored once each calendar quarter. Any area of the landfill that the Executive Officer deems as inaccessible or dangerous for a technician to enter may be excluded from the area to be monitored by the landfill owner or operator. To exclude an area from monitoring, the landfill owner or operator shall file a petition with the Executive Officer. Such a request shall include an explanation of why the area should be excluded and photographs of the area. Any excluded area granted shall only apply to the monitoring requirement. The 500 ppmv limit specified in paragraph (d)(6) of Rule 1150.1 applies to all areas.

**ALTERNATIVE: MONITORING IS NOT REQUIRED FOR THE  
FOLLOWING LANDFILL SURFACES:  
PORTIONS OF SLOPES 30 DEGREES AND GREATER, PAVED  
SURFACES EXCEPT FOR CRACKS, AND THE ACTIVE WORKING  
FACE.**

3.2 Equipment Description and Specifications

A portable FID shall be used to instantaneously measure the concentration of TOC measured as methane at any location on the landfill. The FID shall meet the specifications listed in Sections 3.2.1 through 3.2.4 and shall be kept in good operating condition.

3.2.1 The portable analyzer shall meet the instrument specifications provided in Section 3 of U.S. EPA Method 21, except that:

3.2.1.1 "Methane" shall replace all references to VOC.

3.2.1.2 A response time of 15 seconds or shorter shall be used instead of 30 seconds.

3.2.1.3 A precision of 3% or better shall be used instead of 10%.

In addition the instrument shall meet the specifications in Sections 3.2.1.4 through 3.2.1.6.

3.2.1.4 A minimum detectable limit of 5 ppmv (or lower).

3.2.1.5 A flame-out indicator, audible and visual.

3.2.1.6 Operate at an ambient temperature of 0 - 50°C.

3.2.2 The calibration gas shall be methane, diluted to a nominal concentration of 10,000 ppmv in air for subsurface refuse boundary probe monitoring and sample analysis to comply with paragraph (e)(1) of Rule 1150.1, 50 ppmv in air for integrated sample analyses to comply with paragraph (e)(2) of Rule 1150.1 and 500 ppmv in air for instantaneous monitoring to comply with paragraph (e)(3) of Rule 1150.1.

3.2.3 To meet the performance evaluation requirements in Section 3.1.3 of U.S. EPA Method 21, the instrument evaluation procedures of Section 4.4 of U.S. EPA Method 21 shall be used.

3.2.4 The calibration procedures provided in Section 4.2 of U.S. EPA Method 21 shall be followed at the beginning of each day before commencing a surface monitoring survey.

3.3 Monitoring Procedures

3.3.1 The owner or operator shall monitor the landfill disposal area for TOC measured as methane using the described portable equipment.

3.3.2 The sampling probe shall be placed at a distance of 0-3 inches above any location of the landfill to take the readings.

3.3.3 At a minimum, an individually identified 50,000 square foot grid shall be used and a walk pattern as illustrated in Figure 2 shall be implemented including areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.

3.4 Recording the Results

- 3.4.1 Record the location and concentration of TOC measured as methane for any instantaneous reading of 500 ppmv or greater on a topographic map of the landfill, drawn to scale with the location of both the grids and the gas collection system clearly marked and identified.
- 3.4.2 Maintain and submit the results as specified in subdivision (f) of Rule 1150.1.

4.0 LANDFILL GAS SAMPLE FROM GAS COLLECTION SYSTEM  
Subparagraph (e)(4) Requirement of Rule 1150.1

4.1 Number of Samples

Collect one monthly sample of landfill gas for analysis from the main gas collection header line entering the gas treatment and/or gas control system(s).

4.2 Sampling Procedure

Collect approximately a 10-liter sample in a Tedlar bag or equivalent container over a continuous ten-minute period.

4.3 Analytical Procedures

Samples collected shall be analyzed no later than 72 hours after collection for TOC using U.S. EPA Method 25, 40 CFR, Part 60, Appendix A analysis and for the TAC specified in Table 1 and upon written request, Table II, using U.S. EPA Compendium Method TO-14.

4.4 Chain of Custody (Required for samples sent to the lab)

A custody sheet shall accompany the bag samples. Each time a bag changes hands, it shall be logged on the custody sheet with the time of custody transfer recorded. Laboratory personnel shall record the condition of the sample (full, three-fourths full, one-half full, one-fourth full, or empty). An example of a custody sheet is shown in Figure 4.

4.5 Recording the Results

- 4.5.1 Record the volume concentration of both TOC measured as methane and the volume concentration for the required TAC on a quality control sheet as shown in Figure 3. Include a topographic map drawn to scale with the location of the gas collection and control system clearly marked and identified.
- 4.5.2 Maintain and submit the results as specified in subdivision (f) of Rule 1150.1.

**5.0 AMBIENT AIR SAMPLES AT THE LANDFILL PROPERTY BOUNDARY**

**Subparagraph (e)(5) Requirement of Rule 1150.1**

**5.1 Number of Samples**

Monthly ambient air samples shall be collected for analysis at the landfill property boundary from both an upwind and downwind sampler sited to provide good meteorological exposure to the predominant offshore (drainage land breeze) and onshore (sea breeze) wind flow patterns. The upwind and downwind samples shall be collected simultaneously over two 12 hour periods beginning between 9:00 a.m. and 10:00 a.m., and 9:00 p.m. and 10:00 p.m. on the same day or different days.

**5.2 Ambient Air Sampling Conditions**

Ambient air sampling shall be conducted on days when stable (offshore drainage) and unstable (onshore sea breeze) meteorological conditions are representative for the season. Preferable sampling conditions are characterized by the following meteorological conditions:

5.2.1 Clear cool nights with wind speeds of two miles per hour or less, and

5.2.2 Onshore sea breezes with wind speeds ten miles per hour or less.

No sampling will be conducted if the following adverse meteorological conditions exist:

5.2.3 Rain,

5.2.4 Average wind speeds greater than 15 miles per hour for any 30-minute period, or

5.2.5 Instantaneous wind speeds greater than 25 miles per hour.

Continuously recorded on-site wind speed and direction measurements required in paragraph (d)(9) of Rule 1150.1 will characterize the micrometeorology of the site

and serve to verify that the meteorological criteria have been met during sampling.

5.3 Ambient Air Sampler Equipment Description

An ambient air sampling unit consists of a 10-liter Tedlar bag, a DC-operated pump, stainless steel capillary tubing to control the sample rate to the bag, a bypass valve to control the sample flow rate (and minimize back pressure on the pump), a Rotameter for flow indication to aid in setting the flow, a 24-hour clock timer to shut off the sampler at the end of the 24-hour sampling period, and associated tubing and connections (made of stainless steel, Teflon, or borosilicate glass to minimize contamination and reactivity). The physical layout of the sampler is shown in Figure 5.

An alternate ambient air sampler may be used, provided that the landfill owner or operator can show an equivalency with the sampler specifications in Section 5.3 and shown in Figure 5. All alternatives shall be submitted as specified in subdivision (i) of Rule 1150.1.

5.4 Ambient Air Sampler Equipment Specifications

The equipment used when conducting air samples at any landfill property boundary shall meet the following specifications:

5.4.1 Power: one 12V DC marine battery. The marine battery provides 12V DC to the pump and the clock.

5.4.2 Pump: one 12V DC pump. The diaphragm shall be made of non-lubricated Viton rubber. The maximum pump unloaded flow rate shall be 4.5 liters per minute.

5.4.3 Bag: One 10-liter Tedlar bag with a valve. The Tedlar bag shall be enclosed in a LIGHT-SEALED CONTAINER. The valve is a push-pull type constructed of aluminum and stainless steel, with a Viton or Buna-N (butadiene acrylonitrile co-polymer) o-ring seal.

**ALTERNATIVE: SUMMA-CANNISTERS**

5.4.4 Rotameter - made of borosilicate glass and has a flow range of 3-to-50 cubic centimeters per minute. The scale is in millimeters (mm) with major graduations (labeled) every 5 mm and minor graduations every 1 mm.

5.4.5 Air flow control orifice: 316 stainless steel capillary tubing.

5.4.6 Bypass valve.

5.4.7 Fittings, tubing, and connectors -- 315 stainless steel or Teflon.

5.4.8 Clock timer with an accuracy of better than 1%.

5.5 Ambient Air Sample Analytical Procedures

Samples collected must be analyzed no later than 72 hours after collection for TOC using U.S. EPA Method 25, 40 CFR, Part 60, Appendix A analysis or a portable FID that meets the requirements in Section 3.2 and for the TAC specified in Table 1 and upon written request, Table II, using U.S. EPA Compendium Method TO-14.

5.6 Chain of Custody (Required for samples sent to the lab)

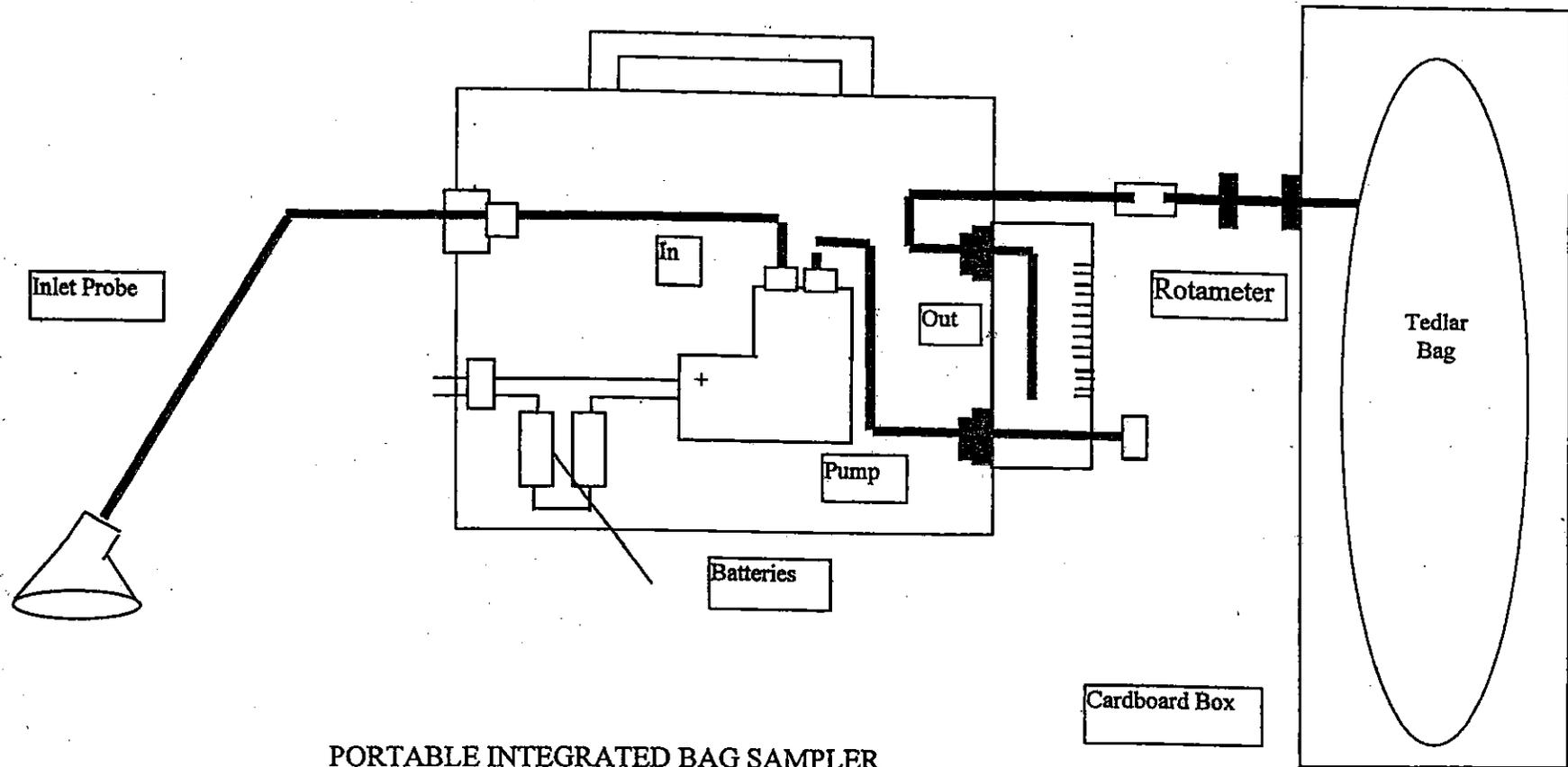
A custody sheet shall accompany the bag samples. Each time a bag changes hands, it shall be logged on the custody sheet with the time of custody transfer recorded. Laboratory personnel shall record the condition of the sample (full, three-fourths full, one-half full, one-fourth full, or empty). An example of a custody sheet is shown in Figure 4.

5.7 Recording the Results

5.7.1 Record the volume concentration of TOC measured as methane and the volume concentration of TAC for each sample on a quality control sheet as shown in Figure 3. Include a topographic map drawn to scale with the location of both the upwind and downwind samplers and the gas collection and control system clearly marked and identified.

5.7.2 Record the wind speed and direction during the 24-hour sampling period using the wind speed and direction monitoring system required in paragraph (d)(9) of Rule 1150.1.

5.7.3 Maintain and submit the results as specified in subdivision (f) of Rule 1150.1.



PORTABLE INTEGRATED BAG SAMPLER  
Physical Layout

Figure 1

Typical Landfill Walk Pattern  
for a 50,000 Square Foot Grid

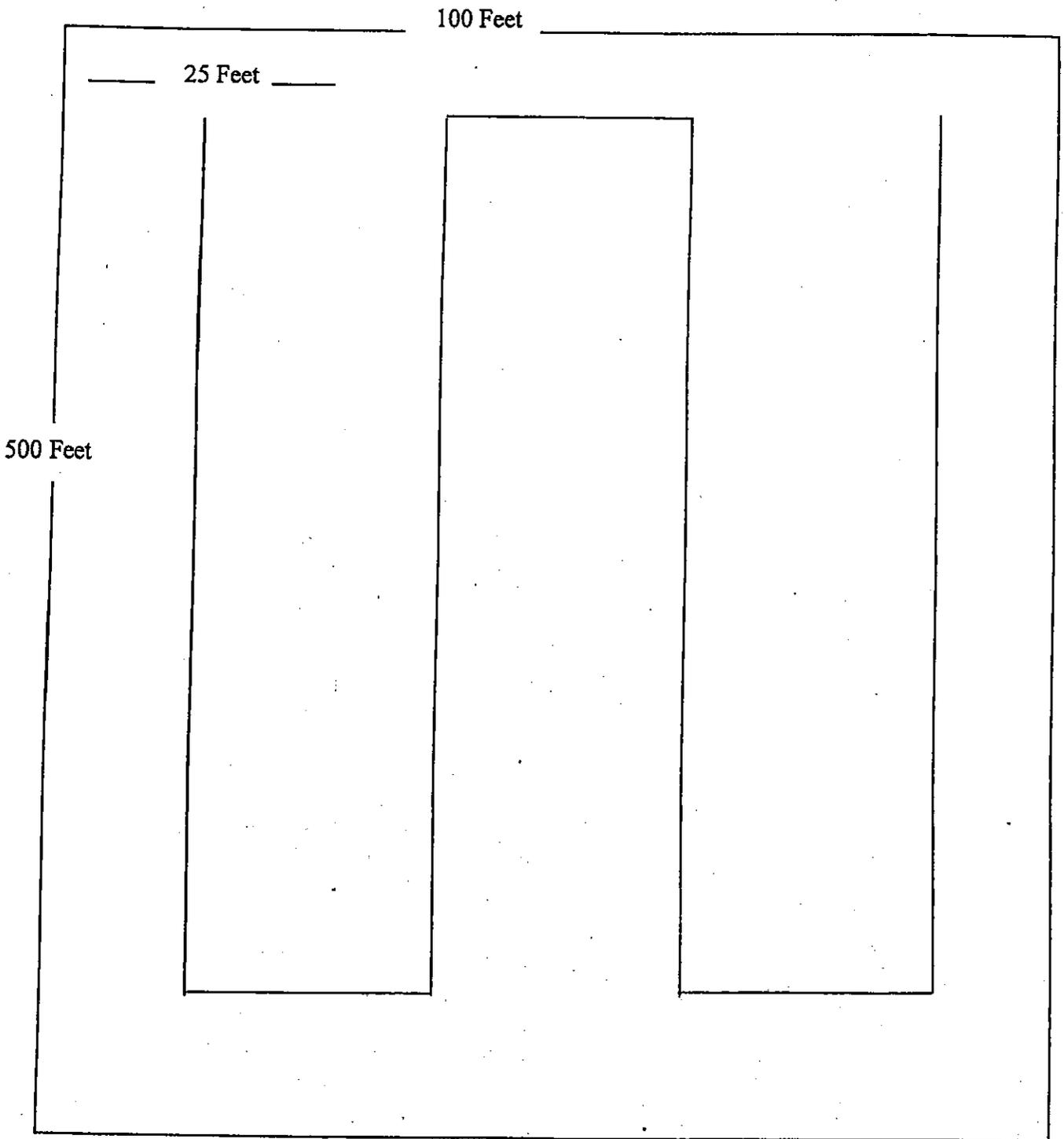


Figure 2



**BAG SAMPLE CUSTODY FORM**

Project \_\_\_\_\_

Date: \_\_\_\_\_

|                            |  |  |  |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|--|--|--|
| Bag (I.D. #)               |  |  |  |  |  |  |  |  |  |
| Condition Received in Lab* |  |  |  |  |  |  |  |  |  |

Bags Prepared By: \_\_\_\_\_ Time: \_\_\_\_\_  
Date: \_\_\_\_\_

Bags Taken Out By: \_\_\_\_\_ Time: \_\_\_\_\_

Bags Taken to Lab By \_\_\_\_\_

Bags Received In Lab By: \_\_\_\_\_ Time \_\_\_\_\_

\* F = 1/2 full to full, O = Overfull (Bulging), L = 1/4 to 1/2 full,  
E = Less than 1/4 full but contains some sample, N = No sample at all.

**Figure 4**

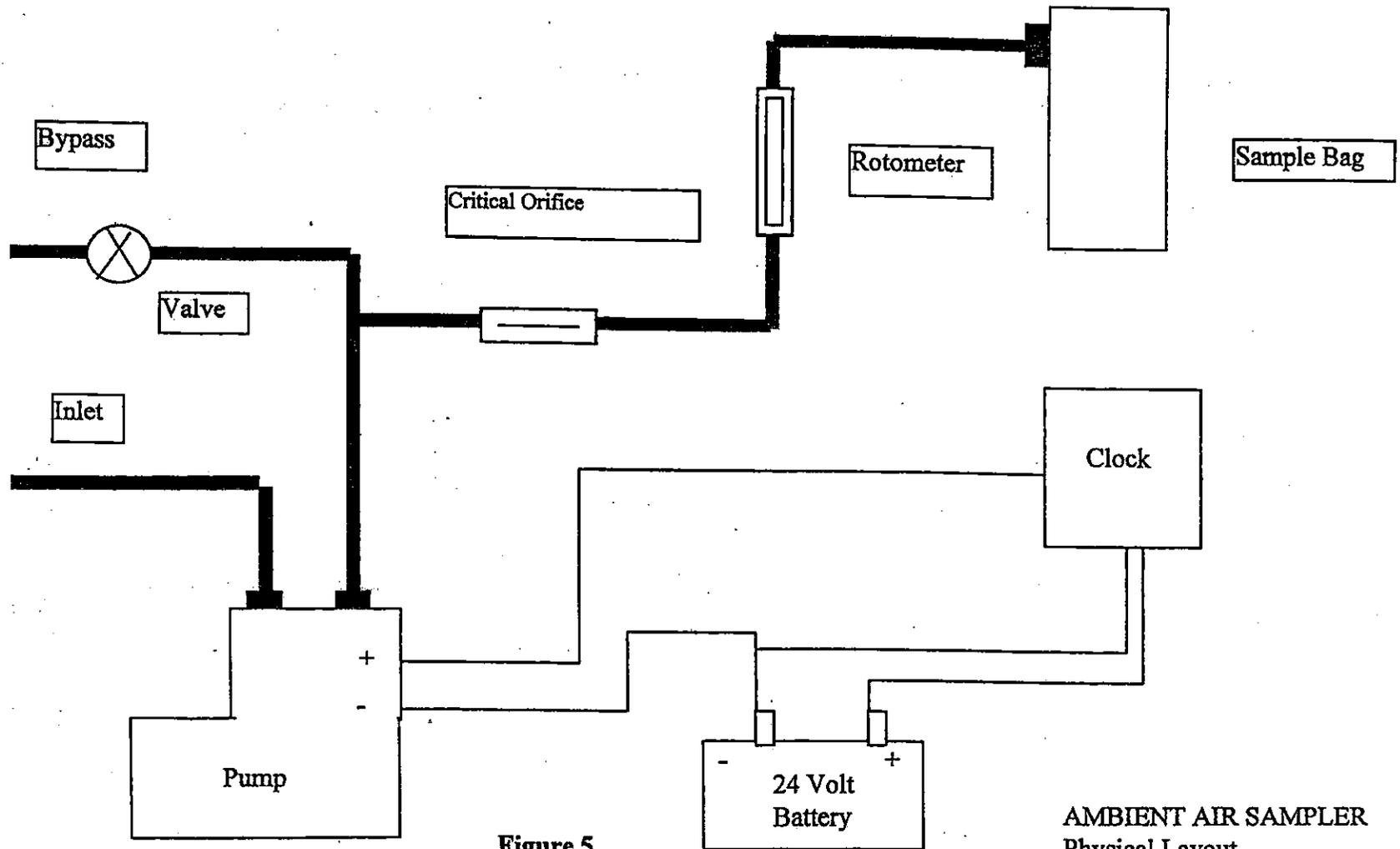


Figure 5

AMBIENT AIR SAMPLER  
Physical Layout

TABLE 1 - CARCINOGENIC AND TOXIC AIR CONTAMINANTS  
(Core Group)

Paragraph (e)(2), Subparagraphs (k)(3)(F) and (k)(3)(G) Requirements of  
Rule 1150.1

|     |   |                  |
|-----|---|------------------|
| 1.  | Benzene                                   | $C_6H_6$         |
| 2.  | Benzyl Chloride                           | $C_6H_5H_2Cl$    |
| 3.  | Chlorobenzene                             | $C_6H_5Cl$       |
| 4.  | 1,2 Dibromoethane (Ethylene Dibromide)    | $BrCH_2CH_2Br$   |
| 5.  | Dichlorobenzene                           | $C_6H_4Cl_2$     |
| 6.  | 1,1 Dichloroethane (Ethylidene Chloride)  | $CH_3CHCl_2$     |
| 7.  | 1,2 Dichloroethane (Ethylene Dichloride)  | $C1H_2H_2Cl$     |
| 8.  | 1,1 Dichloroethene (Vinylidene Chloride)  | $CH_2 : CC1_2$   |
| 9.  | Dichloromethane (Methylene Chloride)      | $CH_2Cl_2$       |
| 10. | Hydrogen Sulfide                          | $H_2S$           |
| 11. | Tetrachloroethylene (Perchloroethylene)   | $C1_2C : CC1_2$  |
| 12. | Tetrachloromethane (Carbon Tetrachloride) | $CC1_4$          |
| 13. | Toluene                                   | $C_6H_5CH_3$     |
| 14. | 1,1,1 Trichloroethane (Methyl Chloroform) | $CH_3CC1_3$      |
| 15. | Trichloroethylene                         | $CHC1 : CC1_2$   |
| 16. | Trichloromethane (Chloroform)             | $CHC1_3$         |
| 17. | Vinyl Chloride                            | $CH_2 : CHC1$    |
| 18. | Xylene                                    | $C_6H_4(CH_3)_2$ |

TABLE 2 - CARCINOGENIC AND TOXIC AIR CONTAMINANTS  
(Supplemental Group)

Paragraph (e)(2), Subparagraphs (k)(3)(F) and (k)(3)(G) Requirements of  
Rule 1150.1

|     |                                   |   |
|-----|-----------------------------------|---|
| 1.  | Acetaldehyde                      | CH <sub>3</sub> CHO   |
| 2.  | Acrolein                          | CH <sub>2</sub> CHCHO   |
| 3.  | Acrylonitrile                     | H <sub>2</sub> C : CHCN   |
| 4.  | Allyl Chloride                    | H <sub>2</sub> C : CHCH <sub>2</sub> Cl                           |
| 5.  | Bromomethane (Methyl Bromide)     | CH <sub>3</sub> Br  |
| 6.  | Chlorinated Phenols               |   |
| 7.  | Chloroprene                       | H <sub>2</sub> C : CHCCl : CH <sub>2</sub>                        |
| 8.  | Cresol                            | CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OH                  |
| 9.  | Dialkyl Nitrosamines              |   |
| 10. | 1,4 - Dioxane                     | OCH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> |
| 11. | Epichlorohydrin                   | CH <sub>2</sub> OCHCH <sub>2</sub> Cl                             |
| 12. | Ethylene Oxide                    | CH <sub>2</sub> CH <sub>2</sub> O                                 |
| 13. | Formaldehyde                      | HCHO  |
| 14. | Hexachlorocyclopentadiene         | C <sub>5</sub> Cl <sub>6</sub>                                    |
| 15. | Nitrobenzene                      | C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>                     |
| 16. | Phenol                            | C <sub>6</sub> H <sub>5</sub> OH                                  |
| 17. | Phosgene                          | COCl <sub>2</sub>   |
| 18. | Polychlorinated Dibenzo-P-Dioxin  |   |
| 19. | Polychlorinated Dibenzo Furan     |   |
| 20. | Polychlorinated Biphenols         |   |
| 21. | Polynuclear Aromatic Hydrocarbons |   |
| 22. | Propylene Oxide                   | CH <sub>2</sub> -CH-CH <sub>3</sub>                               |
| 23. | Tetrahydrothiophene               | CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> S |
| 24. | Thiophene                         | CHCHCHCHS   |

**Attachment B**

**TITLE 27. Environmental Protection**

**Division 2. Solid Waste**

**Subdivision 1. Consolidated Regulations for Treatment, Storage, Processing or Disposal of Solid**

**Chapter 3. Criteria for All Waste Management Units, Facilities, and Disposal Sites**

**Subchapter S. Closure and Post-Closure Maintenance**

**Article 2. Closure and Post-Closure Maintenance Standards for Disposal Sites and  
Landfills**

**§21140. Section CIWMB -- Final Cover. (T14:§17773)**

- (a) The final cover shall function with minimum maintenance and provide waste containment to protect public health and safety by controlling at a minimum, vectors, fire, odor, litter and landfill gas migration. The final cover shall also be compatible with postclosure land use.
- (b) In proposing a final cover design meeting the requirements under §21090, the owner or operator shall assure that the proposal meets the requirements of this section. Alternative final cover designs shall meet the performance requirements of ¶(a) and, for MSWLF units, 40 CFR 258.60(b); shall be approved by the enforcement agency for aspects of ¶(a).
- (c) The EA may require additional thickness, quality, and type of final cover depending on, but not limited to the following:
- (1) a need to control landfill gas emissions and fires;
  - (2) the future reuse of the site; and
  - (3) provide access to all areas of the site as needed for inspection of monitoring and control facilities, etc.

**NOTE**

Authority cited: Sections 40502 and 43020, Public Resources Code; and Section 66796.22 (d), Government Code. Reference: Sections 43021 and 43103, Public Resources Code; and Section 66796.22(d), Government Code.

**HISTORY**

1. New section filed 6-18-97; operative 7-18-97 (Register 97, No. 25).

Attachment C

TITLE 27. Environmental Protection

Division 2. Solid Waste

Subdivision 1. Consolidated Regulations for Treatment, Storage, Processing or Disposal of Solid

Chapter 3. Criteria for All Waste Management Units, Facilities, and Disposal Sites

Subchapter 2. Siting and Design

Article 2. SWRCB -- Waste Classification and Management

§20200. SWRCB -- Applicability and Classification Criteria. (CI5: §2520)

(a) Concept--This article contains a waste classification system which applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management units (Units) for treatment, storage, or disposal in accordance with the requirements of this division. Wastes which can be discharged directly or indirectly (*e.g., by percolation*) to waters of the state under effluent or concentration limits that implement applicable water quality control plans (*e.g., municipal or industrial effluent or process wastewater*) are not subject to the SWRCB-promulgated provisions of this division. This waste classification system shall provide the basis for determining which wastes may be discharged at each class of Unit. Waste classifications are based on an assessment of the potential risk of water quality degradation associated with each category of waste.

(1) The waste classifications in this article shall determine where the waste can be discharged unless the waste does not consist of or contain municipal solid waste (MSW) and the discharger establishes to the satisfaction of the RWQCB that a particular waste constituent or combination of constituents presents a lower risk of water quality degradation than indicated by classification according to this article.

(2) Discharges of wastes identified in §20210 or §20220 of this article shall be permitted only at Units which have been approved and classified by the RWQCB in accordance with the criteria established in Article 3 of this subchapter, and for which WDRs have been prescribed or waived pursuant to Article 4, Subchapter 3, Chapter 4 of this subdivision (§21710 et seq.). Table 2.1 (of this article) presents a summary of discharge options for each waste category.

(b) Dedicated Units/Cells For Certain Wastes--The following wastes shall be discharged only at dedicated Units [or dedicated landfill cells (*e.g., ash monofill cell*)] which are designed and constructed to contain such wastes:

(1) wastes which cause corrosion or decay, or otherwise reduce or impair the integrity of containment structures;

(2) wastes which, if mixed or commingled with other wastes can produce a violent reaction (including heat, pressure, fire or explosion), can produce toxic byproducts, or can produce any reaction product(s) which:

- (A) requires a higher level of containment;
- (B) is a restricted waste; or
- (C) impairs the integrity of containment structures.

(c) Waste Characterization--Dischargers shall be responsible for accurate characterization of wastes, including determinations of whether or not wastes will be compatible with containment features and other wastes at a Unit under ¶(b), and whether or not wastes are required to be managed as hazardous wastes under Chapter 11 of Division 4.5 of Title 22 of this code.

(d) Management of Liquids at Landfills and Waste Piles--The following requirements apply to discharges of liquids at Class II waste piles and at Class II and Class III landfills, except as otherwise required for MSW landfills by more-stringent state and federal requirements under SWRCB Resolution No. 93-62 section 2908 of Title 23 of this Code (see 40CFR258.28) [Note: see also definitions of "leachate" and "landfill gas condensate" in §20164]:

(1) [Reserved.];

(2) wastes containing free liquids shall not be discharged to a Class II waste pile. Any waste that contains liquid in excess of the moisture-holding capacity of the waste in the Class II landfill, or which contains liquid in excess of the moisture-holding capacity as a result of waste management operations, compaction, or settlement shall only be discharged to a surface impoundment or to another Unit with containment features equivalent to a surface impoundment; and

(3) liquids or semi-solid waste (i.e., waste containing less than 50 percent solids, by weight), other than dewatered sewage or water treatment sludge as described in §20220(c), shall not be discharged to Class III landfills. Exceptions may be granted by the RWQCB if the discharger can demonstrate that such discharge will not exceed the moisture-holding capacity of the landfill, either initially or as a result of waste management operations, compaction, or settlement, so long as such discharge is not otherwise prohibited by applicable state or federal requirements

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES**

**SECTION J: AIR TOXICS**

NOT APPLICABLE

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

#### GENERAL PROVISIONS

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]
2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

#### Permit Renewal and Expiration

3. (A) Except for solid waste incineration facilities subject to standards under section 129(e) of the Clean Air Act, this permit shall expire five years from the date that this Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]  
  
(B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]
4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

#### Duty to Provide Information

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

#### Payment of Fees

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

#### Reopening for Cause

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:
- (A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.
  - (B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - (C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

#### **COMPLIANCE PROVISIONS**

8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:
- (A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or
  - (B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **SECTION K: TITLE V Administration**

9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:
  - (A) Enter the operator's premises where emission-related activities are conducted, or records are kept under the conditions of this permit;
  - (B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - (C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]
  
10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]
  
11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]
  
12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]
  
13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]
15. Nothing in this permit or in any permit shield can alter or affect:
- (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;
  - (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;
  - (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;
  - (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;
  - (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and
  - (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]
16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration EMERGENCY PROVISIONS

17. An emergency<sup>1</sup> constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limit only if:
- (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:
    - (1) An emergency occurred and the operator can identify the cause(s) of the emergency;
    - (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;
    - (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,
    - (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - (B) The operator complies with the breakdown provisions of Rule 430 – Breakdown Provisions, or subdivision (i) of Rule 2004 – Requirements, whichever is applicable. [3002(g), 430, 2004(i)]
18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

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<sup>1</sup> "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **SECTION K: TITLE V Administration RECORDKEEPING PROVISIONS**

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:
- (A) The date, place as defined in the Title V permit, and time of sampling or measurements;
  - (B) The date(s) analyses were performed;
  - (C) The company or entity that performed the analyses;
  - (D) The analytical techniques or methods used;
  - (E) The results of such analyses; and
  - (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]
20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(t)]
21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

### **REPORTING PROVISIONS**

22. The operator shall comply with the following requirements for prompt reporting of deviations:
- (A) Breakdowns shall be reported as required by Rule 430 – Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

- (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.
  - (C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.
  - (D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]
23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]
24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:
- (A) Identification of each permit term or condition that is the basis of the certification;

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **SECTION K: TITLE V Administration**

- (B) The compliance status during the reporting period;
- (C) Whether compliance was continuous or intermittent;
- (D) The method(s) used to determine compliance over the reporting period and currently, and
- (E) Any other facts specifically required by the Executive Officer to determine compliance.

The EPA copy of the certification shall be sent to: Director of the Air Division Attn:  
Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]

25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

### **PERIODIC MONITORING**

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the TitleV application file. [3004(a)(4)]

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

#### *FACILITY RULES*

*This facility is subject to the following rules and regulations*

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

| <b>RULE SOURCE</b>     | <b>Adopted/Amended Date</b> | <b>FEDERAL Enforceability</b> |
|------------------------|-----------------------------|-------------------------------|
| RULE 104               | 1-9-1976                    | Federally enforceable         |
| RULE 1113              | 11-8-1996                   | Federally enforceable         |
| RULE 1113              | 6-9-2006                    | Non federally enforceable     |
| RULE 1150              | 10-15-1982                  | Non federally enforceable     |
| RULE 1150.1            | 3-17-2000                   | Federally enforceable         |
| RULE 1150.1            | 4-1-2011                    | Non federally enforceable     |
| RULE 1171              | 11-7-2003                   | Federally enforceable         |
| RULE 1171              | 7-14-2006                   | Non federally enforceable     |
| RULE 118               | 12-7-1995                   | Non federally enforceable     |
| RULE 1303(a)(1)-BACT   | 12-6-2002                   | Non federally enforceable     |
| RULE 1303(a)(1)-BACT   | 5-10-1996                   | Federally enforceable         |
| RULE 1303(b)(2)-Offset | 12-6-2002                   | Non federally enforceable     |
| RULE 1303(b)(2)-Offset | 5-10-1996                   | Federally enforceable         |
| RULE 1401              | 9-10-2010                   | Non federally enforceable     |
| RULE 1402              | 3-4-2005                    | Non federally enforceable     |
| RULE 1415              | 10-14-1994                  | Non federally enforceable     |
| RULE 204               | 10-8-1993                   | Federally enforceable         |
| RULE 217               | 1-5-1990                    | Federally enforceable         |
| RULE 218               | 5-14-1999                   | Federally enforceable         |
| RULE 218               | 8-7-1981                    | Federally enforceable         |
| RULE 218.1             | 5-14-1999                   | Federally enforceable         |
| RULE 219               | 7-14-2006                   | Non federally enforceable     |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### SECTION K: TITLE V Administration

| <b>RULE SOURCE</b>                  | <b>Adopted/Amended Date</b> | <b>FEDERAL Enforceability</b> |
|-------------------------------------|-----------------------------|-------------------------------|
| RULE 219                            | 9-4-1981                    | Federally enforceable         |
| RULE 3002                           | 11-14-1997                  | Federally enforceable         |
| RULE 3003                           | 11-14-1997                  | Federally enforceable         |
| RULE 3003                           | 3-16-2001                   | Non federally enforceable     |
| RULE 3004                           | 12-12-1997                  | Federally enforceable         |
| RULE 3004(a)(4)-Periodic Monitoring | 12-12-1997                  | Federally enforceable         |
| RULE 3004(c)-Permit Shield          | 8-11-1995                   | Federally enforceable         |
| RULE 3005                           | 11-14-1997                  | Federally enforceable         |
| RULE 3005                           | 3-16-2001                   | Non federally enforceable     |
| RULE 3007                           | 10-8-1993                   | Federally enforceable         |
| RULE 304                            | 6-9-2006                    | Non federally enforceable     |
| RULE 401                            | 11-9-2001                   | Non federally enforceable     |
| RULE 401                            | 3-2-1984                    | Federally enforceable         |
| RULE 402                            | 5-7-1976                    | Non federally enforceable     |
| RULE 403                            | 12-11-1998                  | Federally enforceable         |
| RULE 404                            | 2-7-1986                    | Federally enforceable         |
| RULE 405                            | 2-7-1986                    | Federally enforceable         |
| RULE 407                            | 4-2-1982                    | Federally enforceable         |
| RULE 408                            | 5-7-1976                    | Federally enforceable         |
| RULE 409                            | 8-7-1981                    | Federally enforceable         |
| RULE 430                            | 7-12-1996                   | Non federally enforceable     |
| RULE 431.1                          | 11-17-1995                  | Non federally enforceable     |
| RULE 431.1                          | 6-12-1998                   | Federally enforceable         |
| RULE 431.2                          | 5-4-1990                    | Federally enforceable         |
| RULE 431.2                          | 9-15-2000                   | Non federally enforceable     |
| RULE 461                            | 4-21-2000                   | Federally enforceable         |
| RULE 461                            | 6-3-2005                    | Federally enforceable         |
| RULE 475                            | 10-8-1976                   | Federally enforceable         |
| RULE 475                            | 8-7-1978                    | Non federally enforceable     |
| RULE 476                            | 10-8-1976                   | Federally enforceable         |
| RULE 701                            | 6-13-1997                   | Federally enforceable         |
| 40CFR 82 Subpart F                  | 5-14-1993                   | Federally enforceable         |

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES**

**SECTION K: TITLE V Administration**

| <b>RULE SOURCE</b> | <b>Adopted/Amended Date</b> | <b>FEDERAL Enforceability</b> |
|--------------------|-----------------------------|-------------------------------|
| 40CFR Part 64      | 10-22-1997                  | Federally enforceable         |

**FACILITY PERMIT TO OPERATE  
LA CNTY SANITATION DISTRICT-PALOS VERDES**

**APPENDIX A: NOX AND SOX EMITTING EQUIPMENT EXEMPT FROM WRITTEN  
PERMIT PURSUANT TO RULE 219**

NONE

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-08-1996]

- (1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, or manufacture, blend, or repackage such a coating for use within the District.
- (2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified.

### TABLE OF STANDARDS

#### VOC LIMITS

#### Grams of VOC Per Liter of Coating, Less Water And Less Exempt Compounds

| COATING                         | Limit* | Effective Date of Adoption | Effective 1/1/1998 | Effective 1/1/1999 | Effective 7/1/2001 | Effective 1/1/2005 | Effective 7/1/2008 |
|---------------------------------|--------|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Bond Breakers                   | 350    |                            |                    |                    |                    |                    |                    |
| Clear Wood Finishes             |        |                            |                    |                    |                    |                    |                    |
| Varnish                         | 350    |                            |                    |                    |                    |                    |                    |
| Sanding Sealers                 | 350    |                            |                    |                    |                    |                    |                    |
| Lacquer                         | 680    |                            | 550                |                    |                    | 275                |                    |
| Concrete-Curing Compounds       | 350    |                            |                    |                    |                    |                    |                    |
| Dry-Fog Coatings                | 400    |                            |                    |                    |                    |                    |                    |
| Fire-proofing Exterior Coatings | 350    | 450                        |                    | 350                |                    |                    |                    |
| Fire-Retardant Coatings         |        |                            |                    |                    |                    |                    |                    |
| Clear                           | 650    |                            |                    |                    |                    |                    |                    |
| Pigmented                       | 350    |                            |                    |                    |                    |                    |                    |
| Flats                           | 250    |                            |                    |                    | 100                |                    |                    |
| Graphic Arts (Sign) Coatings    | 500    |                            |                    |                    |                    |                    | 50                 |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-08-1996]

|                             |     |     |     |     |  |     |
|-----------------------------|-----|-----|-----|-----|--|-----|
| Industrial Maintenance      |     |     |     |     |  |     |
| Primers and Topcoats        |     |     |     |     |  |     |
| Alkyds                      | 420 |     |     |     |  |     |
| Catalyzed Epoxy             | 420 |     |     |     |  |     |
| Bituminous Coatings         | 420 |     |     |     |  |     |
| Materials                   |     |     |     |     |  |     |
| Inorganic Polymers          | 420 |     |     |     |  |     |
| Vinyl Chloride Polymers     | 420 |     |     |     |  |     |
| Chlorinated Rubber          | 420 |     |     |     |  |     |
| Acrylic Polymers            | 420 |     |     |     |  |     |
| Urethane Polymers           | 420 |     |     |     |  |     |
| Silicones                   | 420 |     |     |     |  |     |
| Unique Vehicles             | 420 |     |     |     |  |     |
| Japans/Faux Finishing       | 350 | 700 |     | 350 |  |     |
| Coatings                    |     |     |     |     |  |     |
| Magnesite Cement Coatings   | 600 |     |     | 450 |  |     |
| Mastic Coatings             | 300 |     |     |     |  |     |
| Metallic Pigmented Coatings | 500 |     |     |     |  |     |
| Multi-Color Coatings        | 420 |     | 250 |     |  |     |
| Pigmented Lacquer           | 680 |     | 550 |     |  | 275 |
| Pre-Treatment Wash Primers  | 780 |     |     |     |  |     |
| Primers, Sealers, and       | 350 |     |     |     |  |     |
| Undercoaters                |     |     |     |     |  |     |
| Quick-Dry Enamels           | 400 |     |     |     |  |     |
| Roof Coatings               | 300 |     |     |     |  |     |
| Shellac                     |     |     |     |     |  |     |
| Clear                       | 730 |     |     |     |  |     |
| Pigmented                   | 550 |     |     |     |  |     |
| Stains                      | 350 |     |     |     |  |     |
| Swimming Pool Coatings      |     |     |     |     |  |     |
| Repair                      | 650 |     |     |     |  |     |
| Other                       | 340 |     |     |     |  |     |
| Traffic Coatings            | 250 |     | 150 |     |  |     |
| Waterproofing Sealers       | 400 |     |     |     |  |     |
| Wood Preservatives          |     |     |     |     |  |     |
| Below-Ground                | 350 |     |     |     |  |     |
| Other                       | 350 |     |     |     |  |     |

\* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

### TABLE OF STANDARDS (cont.)

#### VOC LIMITS

#### Grams of VOC Per Liter of Material

| COATING            | Limit |
|--------------------|-------|
| Low-Solids Coating | 120   |

## **FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-09-2006]**

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
  
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-09-2006] TABLE OF STANDARDS VOC LIMITS

**Grams of VOC Per Liter of Coating,  
 Less Water and Less Exempt Compounds**

| COATING CATEGORY   | Ceiling Limit* | Current Limit | Effective Date |        |        |        |        |        |
|--|----------------|---------------|----------------|--------|--------|--------|--------|--------|
|  |                |               | 1/1/03         | 1/1/04 | 1/1/05 | 7/1/06 | 7/1/07 | 7/1/08 |
| Bond Breakers  | 350            |               |                |        |        |        |        |        |
| Clear Wood Finishes  | 350            |               |                |        |        | 275    |        |        |
| Varnish  | 350            |               |                |        |        | 275    |        |        |
| Sanding Sealers  | 350            |               |                |        |        | 275    |        |        |
| Lacquer  | 680            | 550           |                |        | 275    |        |        |        |
| Clear Brushing Lacquer                                     | 680            |               |                |        | 275    |        |        |        |
| Concrete-Curing Compounds                                  | 350            |               |                |        |        |        | 100    |        |
| Concrete-Curing Compounds<br>For Roadways and<br>Bridges** | 350            |               |                |        |        |        |        |        |
| Dry-Fog Coatings   | 400            |               |                |        |        |        | 150    |        |
| Fire-Proofing Exterior Coatings                            | 450            | 350           |                |        |        |        |        |        |
| Fire-Retardant Coatings***                                 |                |               |                |        |        |        |        |        |
| Clear  | 650            |               |                |        |        |        |        |        |
| Pigmented  | 350            |               |                |        |        |        |        |        |
| Flats  | 250            | 100           |                |        |        |        |        | 50     |
| Floor Coatings   | 420            |               | 100            |        |        | 50     |        |        |
| Graphic Arts (Sign) Coatings                               | 500            |               |                |        |        |        |        |        |
| Industrial Maintenance (IM)<br>Coatings                    | 420            |               |                | 250    |        | 100    |        |        |
| High Temperature IM<br>Coatings                            |                |               | 420            |        |        |        |        |        |
| Zinc-Rich IM Primers                                       | 420            |               | 340            |        |        | 100    |        |        |
| Japans/Faux Finishing Coatings                             | 700            | 350           |                |        |        |        |        |        |
| Magnesite Cement Coatings                                  | 600            | 450           |                |        |        |        |        |        |
| Mastic Coatings  | 300            |               |                |        |        |        |        |        |
| Metallic Pigmented Coatings                                | 500            |               |                |        |        |        |        |        |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-09-2006]

| COATING CATEGORY                             | Ceiling Limit* | Current Limit | Effective Date |        |        |        |        |        |
|--|----------------|---------------|----------------|--------|--------|--------|--------|--------|
|  |                |               | 1/1/03         | 1/1/04 | 1/1/05 | 7/1/06 | 7/1/07 | 7/1/09 |
| Multi-Color Coatings                         | 420            | 250           |                |        |        |        |        |        |
| Nonflat Coatings                             | 250            |               | 150            |        |        | 50     |        |        |
| Nonflat High Gloss                           | 250            |               | 150            |        |        |        | 50     |        |
| Pigmented Lacquer                            | 680            | 550           |                |        | 275    |        |        |        |
| Pre-Treatment Wash Primers                   | 780            |               | 420            |        |        |        |        |        |
| Primers, Sealers, and Undercoaters           | 350            |               | 200            |        |        | 100    |        |        |
| Quick-Dry Enamels                            | 400            |               | 250            |        |        | 150    | 50     |        |
| Quick-Dry Primers, Sealers, and Undercoaters | 350            |               | 200            |        |        | 100    |        |        |
| Recycled Coatings                            |                |               | 250            |        |        |        |        |        |
| Roof Coatings                                | 300            |               | 250            |        | 50     |        |        |        |
| Roof Coatings, Aluminum                      | 500            |               |                |        | 100    |        |        |        |
| Roof Primers, Bituminous                     | 350            |               | 350            |        |        |        |        |        |
| Rust Preventative Coatings                   | 420            |               | 400            |        |        | 100    |        |        |
| Shellac                                      |                |               |                |        |        |        |        |        |
| Clear  | 730            |               |                |        |        |        |        |        |
| Pigmented                                    | 550            |               |                |        |        |        |        |        |
| Specialty Primers                            | 350            |               |                |        |        | 250    | 100    |        |
| Stains                                       | 350            |               | 250            |        |        |        | 100    |        |
| Stains, Interior                             | 250            |               |                |        |        |        |        |        |
| Swimming Pool Coatings                       |                |               |                |        |        |        |        |        |
| Repair                                       | 650            |               | 340            |        |        |        |        |        |
| Other  | 340            |               |                |        |        |        |        |        |
| Traffic Coatings                             | 250            | 150           |                |        |        |        | 100    |        |
| Waterproofing Sealers                        | 400            |               | 250            |        |        | 100    |        |        |
| Waterproofing Concrete/Masonry Sealers       | 400            |               |                |        |        | 100    |        |        |
| Wood Preservatives                           |                |               |                |        |        |        |        |        |
| Below-Ground                                 | 350            |               |                |        |        |        |        |        |
| Other  | 350            |               |                |        |        |        |        |        |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-09-2006]

- \* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.
- \*\* Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.
- \*\*\* The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.

### TABLE OF STANDARDS (cont.) VOC LIMITS

#### Grams of VOC Per Liter of Material

| COATING            | Limit |
|--------------------|-------|
| Low-Solids Coating | 120   |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 11-07-2003]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

| SOLVENT CLEANING ACTIVITY  | CURRENT LIMITS         |
|--|------------------------|
|  | VOC<br>g/l<br>(lb/gal) |
| (A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application |                        |
| (i) General  | 25<br>(0.21)           |
| (ii) Electrical Apparatus Components & Electronic Components   | 500<br>(4.2)           |
| (iii) Medical Devices & Pharmaceuticals  | 800<br>(6.7)           |
| (B) Repair and Maintenance Cleaning  |                        |
| (i) General  | 25<br>(0.21)           |
| (ii) Electrical Apparatus Components & Electronic Components   | 900<br>(7.5)           |

**FACILITY PERMIT TO OPERATE  
 LA CNTY SANITATION DISTRICT-PALOS VERDES**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1171 11-07-2003]**

| SOLVENT CLEANING ACTIVITY                                   | CURRENT LIMITS         |
|---|------------------------|
|   | VOC<br>g/l<br>(lb/gal) |
| (iii) Medical Devices & Pharmaceuticals                     |                        |
| (A) Tools, Equipment, & Machinery                           | 800<br>(6.7)           |
| (B) General Work Surfaces                                   | 600<br>(5.0)           |
| (C) Cleaning of Coatings or Adhesives Application Equipment | 550<br>(4.6)           |
| (D) Cleaning of Ink Application Equipment                   |                        |
| (i) General   | 25<br>(0.21)           |
| (ii) Flexographic Printing                                  | 25<br>(0.21)           |
| (iii) Gravure Printing                                      |                        |
| (A) Publication   | 750<br>(6.3)           |
| (B) Packaging   | 25<br>(0.21)           |
| (iv) Lithographic or Letter Press Printing                  |                        |

**FACILITY PERMIT TO OPERATE  
 LA CNTY SANITATION DISTRICT-PALOS VERDES**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1171 11-07-2003]**

| SOLVENT CLEANING ACTIVITY   | CURRENT LIMITS         |
|---|------------------------|
|   | VOC<br>g/l<br>(lb/gal) |
| (A) Roller Wash – Step 1  | 600<br>(5.0)           |
| (B) Roller Wash-Step 2,<br>Blanket Wash, & On-Press Components                            | 800<br>(6.7)           |
| (C) Removable Press Components  | 25<br>(0.21)           |
| (v) Screen Printing   | 750<br>(6.3)           |
| (vi) Ultraviolet Ink/ Electron Beam Ink<br>Application Equipment (except screen printing) | 800<br>(6.7)           |
| (vii) Specialty Flexographic Printing   | 600<br>(5.0)           |
| (E) Cleaning of Polyester Resin Application Equipment                                     | 25<br>(0.21)           |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 07-14-2006]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

|  | <b>CURRENT<br/>LIMITS*</b>      | <b>EFFECTIVE<br/>1/1/2008</b>   |
|--|---------------------------------|---------------------------------|
| <b>SOLVENT CLEANING ACTIVITY</b>   | <b>VOC<br/>g/l<br/>(lb/gal)</b> | <b>VOC<br/>g/l<br/>(lb/gal)</b> |
| (A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application |                                 |                                 |
| (i) General  | 25<br>(0.21)                    |                                 |
| (ii) Electrical Apparatus Components & Electronic Components   | 100<br>(0.83)                   |                                 |
| (iii) Medical Devices & Pharmaceuticals  | 800<br>(6.7)                    |                                 |
| (B) Repair and Maintenance Cleaning  |                                 |                                 |
| (i) General  | 25<br>(0.21)                    |                                 |
| (ii) Electrical Apparatus Components & Electronic Components   | 100<br>(0.83)                   |                                 |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 07-14-2006]

|   | <b>CURRENT<br/>LIMITS*</b>      | <b>EFFECTIVE<br/>1/1/2008</b>   |
|---|---------------------------------|---------------------------------|
| <b>SOLVENT CLEANING ACTIVITY<br/>(cont.)</b>                | <b>VOC<br/>g/l<br/>(lb/gal)</b> | <b>VOC<br/>g/l<br/>(lb/gal)</b> |
| (iii) Medical Devices & Pharmaceuticals                     |                                 |                                 |
| (A) Tools, Equipment, & Machinery                           | 800<br>(6.7)                    |                                 |
| (B) General Work Surfaces                                   | 600<br>(5.0)                    |                                 |
| (C) Cleaning of Coatings or Adhesives Application Equipment | 25<br>(0.21)                    |                                 |
| (D) Cleaning of Ink Application Equipment                   |                                 |                                 |
| (i) General   | 25<br>(0.21)                    |                                 |
| (ii) Flexographic Printing                                  | 25<br>(0.21)                    |                                 |
| (iii) Gravure Printing                                      |                                 |                                 |
| (A) Publication   | 100<br>(0.83)                   |                                 |
| (B) Packaging   | 25<br>(0.21)                    |                                 |
| (iv) Lithographic (Offset) or Letter Press Printing         |                                 |                                 |
| (A) Roller Wash, Blanket Wash, & On-Press Components        |                                 |                                 |
| (I) Newsprint   | 100<br>(0.83)                   |                                 |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 07-14-2006]

|  | <b>CURRENT<br/>LIMITS*</b>      | <b>EFFECTIVE<br/>1/1/2008</b>   |
|--|---------------------------------|---------------------------------|
| <b>SOLVENT CLEANING ACTIVITY<br/>(cont.)</b>   | <b>VOC<br/>g/l<br/>(lb/gal)</b> | <b>VOC<br/>g/l<br/>(lb/gal)</b> |
| (II) Other Substrates  | 500<br>(4.2)                    | 100<br>(0.83)                   |
| (B) Removable Press Components   | 25<br>(0.21)                    |                                 |
| (v) Screen Printing  | 500<br>(4.2)                    | 100<br>(0.83)                   |
| (vi) Ultraviolet Ink/ Electron Beam Ink<br>Application Equipment (except<br>screen printing) | 650<br>(5.4)                    | 100<br>(0.83)                   |
| (vii) Specialty Flexographic Printing  | 100<br>(0.83)                   |                                 |
| (E) Cleaning of Polyester Resin Application<br>Equipment                                     | 25<br>(0.21)                    |                                 |

\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

The operator shall not discharge into the atmosphere from this equipment, particulate matter in excess of the concentration at standard conditions, shown in Table 404(a).

Where the volume discharged is between figures listed in the Table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

**TABLE 404(a)**

| Volume Discharged Calculated as Dry Gas At Standard Conditions |             | Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions |                       | Volume Discharged Calculated as Dry Gas At Standard Conditions |       | Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions |                       |
|--|-------------|--|-----------------------|--|-------|--|-----------------------|
|  |             | Milligrams per Cubic Meter   | Grains per Cubic Foot |  |       | Milligrams per Cubic Meter   | Grains per Cubic Foot |
| 25 or less   | 883 or less | 450  | 0.196                 | 900  | 31780 | 118  | 0.0515                |
| 30   | 1059        | 420  | .183                  | 1000   | 35310 | 113  | .0493                 |
| 35   | 1236        | 397  | .173                  | 1100   | 38850 | 109  | .0476                 |
| 40   | 1413        | 377  | .165                  | 1200   | 42380 | 106  | .0463                 |
| 45   | 1589        | 361  | .158                  | 1300   | 45910 | 102  | .0445                 |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

| Volume Discharged<br>Calculated as Dry<br>Gas<br>At Standard<br>Conditions |                                | Maximum Concentration<br>of Particulate<br>Matter <sup>2</sup> Allowed in<br>Discharged Gas<br>Calculated as Dry<br>Gas at Standard<br>Conditions |                          | Volume Discharged<br>Calculated as Dry Gas<br>At Standard Conditions |                                | Maximum Concentration<br>of Particulate Matter<br>Allowed in Discharged<br>Gas Calculated as Dry Gas<br>at<br>Standard Conditions |                             |
|--|--------------------------------|---|--------------------------|--|--------------------------------|---|-----------------------------|
| Cubic<br>meters<br>Per<br>Minute   | Cubic<br>feet<br>Per<br>Minute | Milligrams<br>per<br>Cubic<br>Meter   | Grains per<br>Cubic Foot | Cubic<br>meters<br>Per Minute  | Cubic<br>feet<br>Per<br>Minute | Milligrams<br>per<br>Cubic Meter  | Grains per<br>Cubic<br>Foot |
| 50   | 1766                           | 347   | .152                     | 1400   | 49440                          | 100   | .0437                       |
| 60   | 2119                           | 324   | .141                     | 1500   | 52970                          | 97  | .0424                       |
| 70   | 2472                           | 306   | .134                     | 1750   | 61800                          | 92  | .0402                       |
| 80   | 2825                           | 291   | .127                     | 2000   | 70630                          | 87  | .0380                       |
| 90   | 3178                           | 279   | .122                     | 2250   | 79460                          | 83  | .0362                       |
| 100  | 3531                           | 267   | .117                     | 2500   | 88290                          | 80  | .0349                       |
| 125  | 4414                           | 246   | .107                     | 3000   | 105900                         | 75  | .0327                       |
| 150  | 5297                           | 230   | .100                     | 4000   | 141300                         | 67  | .0293                       |
| 175  | 6180                           | 217   | .0947                    | 5000   | 176600                         | 62  | .0271                       |
| 200  | 7063                           | 206   | .0900                    | 6000   | 211900                         | 58  | .0253                       |
| 250  | 8829                           | 190   | .0830                    | 8000   | 282500                         | 52  | .0227                       |
| 300  | 10590                          | 177   | .0773                    | 10000  | 353100                         | 48  | .0210                       |
| 350  | 12360                          | 167   | .0730                    | 15000  | 529700                         | 41  | .0179                       |
| 400  | 14130                          | 159   | .0694                    | 20000  | 706300                         | 37  | .0162                       |
| 450  | 15890                          | 152   | .0664                    | 25000  | 882900                         | 34  | .0148                       |

## FACILITY PERMIT TO OPERATE LA CNTY SANITATION DISTRICT-PALOS VERDES

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

| Volume Discharged<br>Calculated as Dry<br>Gas<br>At Standard<br>Conditions |                                | Maximum Concentration<br>of Particulate<br>Matter Allowed in<br>Discharged Gas<br>Calculated as Dry<br>Gas at Standard<br>Conditions |                          | Volume Discharged<br>Calculated as Dry Gas<br>At Standard Conditions |                                | Maximum Concentration<br>of Particulate Matter<br>Allowed in Discharged<br>Gas Calculated as Dry Gas<br>at<br>Standard Conditions |                             |
|--|--------------------------------|--|--------------------------|--|--------------------------------|---|-----------------------------|
|  |                                | Milligrams<br>per<br>Cubic<br>Meter  | Grains per<br>Cubic Foot |  |                                | Milligrams<br>per<br>Cubic Meter  | Grains per<br>Cubic<br>Foot |
| Cubic<br>meters<br>Per<br>Minute   | Cubic<br>feet<br>Per<br>Minute |  |                          | Cubic<br>meters<br>Per Minute  | Cubic<br>feet<br>Per<br>Minute |   |                             |
| 500  | 17660                          | 146  | .0637                    | 30000  | 1059000                        | 32  | .0140                       |
| 600  | 21190                          | 137  | .0598                    | 40000  | 1413000                        | 28  | .0122                       |
| 700  | 24720                          | 129  | .0563                    | 50000  | 1766000                        | 26  | .0114                       |
| 800  | 28250                          | 123  | .0537                    | 70000<br>or more   | 2472000<br>or more             | 23  | .0100                       |