South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

SOURCE TEST REPORT

88-0075

CONDUCTED AT

Pacific Lighting Energy Systems
Penrose Landfill
8301 Tujunga
Sun Valley, California

EMISSIONS FROM AN INTERNAL COMBUSTION
ENGINE FUELED BY LANDFILL GAS

TESTED: February 24, 1988

ISSUED: JUN 01 1988

REPORTED BY: Victor Espinosa
Air Quality Engineer I

REVIEWED BY:

E. Ramirez, Senior AQ Engineer

SOURCE TESTING AND MONITORING BRANCH
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SANFORD M. WEISS
DIRECTOR, TECHNICAL SERVICES

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive, El Monte, California 91731

Test No. 88-0075

Date 2-24-88

SUMMARY OF RESULTS

Contaminant	Emissions Measured	Emissions Allowed	Applicable Rule
Sulfur Compounds as H_2S	153 ppm	800 ppm	431.1 (b)(4)
Heating Value of Landfill Gas	540 BTU/scf	Information	Information
Carbon Monoxide	12.7 lb/hr	26 lb/hr	Permit Cond.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
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TABLE I

ORGANIC MASS FLOW RATE

Inlet Gas Flow Rate 830 dscfm

Compound	Molecular Weight	Concentration (ppm)	Mass Rate (lb/hr)
Vinyl Chloride	62.5	3.80	0.031
Benzene	78.1	1.20	0.012
Toluene	92.2	40.00	0.486
Xylene	106.2	19.00	0.266
Chloroform	119.4	<0.40	<0.006
Trichloroethylene	131.4	5.60	0.097
1,1,1-Trichloroethane	133.4	<0.09	<0.002
Carbon Tetrachloride	153.8	<0.02	<0.0004
Perchloroethylene	165.3	18.00	0.392
Hydrogen Sulfide	34.1	130.0	0.585
Methyl Mercaptan	48.1	9.2	0.058
Carbonyl Sulfide	60.1	<2.0	<0.016
Dimethyl Sulfide	62.1	10.0	0.082
Carbon Disulfide	76.1	<2.0	<0.020
Methane	16.0	432,000	911.4
TNMHC as Hexane	86.2	123,000	233.0

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TABLE II

ORGANIC MASS EMISSION RATE

Exhaust Gas Flow Rate 6840 dscfm

Compound	Molecular Weight	Concentration (ppm)	Mass Rate (lb/hr)
Chloroform	119.4	0.0072	0.00093
Trichloroethylene	131.4	0.0073	0.00104
1,1,1-Trichlorroethane	133.4	0.00025	0.00004
Carbon Tetrachloride	153.8	0.00006	0.00001
Perchloroethylene	165.3	0.013	0.0023
Methane	16.0	1,540	26.8
Carbon Monoxide	28.0	418	12.7
TNMHC as Hexane	86.2	40	0.6

LN 80558-5

PACIFIC LIGHTING (PENROSE LANDFILL)

Component	Bag #1	Bag #2	Bag #3
Benzene, ppb	1300	1200	*
Toluene, ppb	41000	40000	*
Xylenes, ppb	20000	19000	*
Chloroethene (vinyl chloride), ppb	4200	3800	*
Trichloromethane (chloroform), ppb	<400	<400	7.2
1,1,1-trichloroethane (methyl chloroform), ppb	<90	<90	0.25
Tetrachloromethane (carbon tetrachloride), ppb	<20	<20	0.062
Trichloroethylene, ppb	5500	5600	7.3
Tetrachloroethene (perchloroethylene), ppb	18000	18000	13
Hydrogen sulfide, ppm	130	130	*
Carbonyl sulfide, ppm	<2	<2	*
Methyl mercaptan, ppm	9.6	9.2	*
Dimethyl sulfide, ppm	10	10	*
Carbon disulfide, ppm	<2	<2	*

* Not Analyzed - No Sample