



South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 672-6200

SOURCE TEST REPORT

88-0075

CONDUCTED AT

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

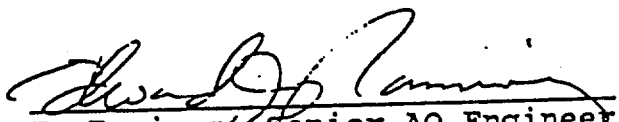
EMISSIONS FROM AN INTERNAL COMBUSTION
ENGINE FUELED BY LANDFILL GAS

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
JOHN HIGUCHI, MANAGER

SANFORD M. WEISS
DIRECTOR, TECHNICAL SERVICES

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

Test No. 88-0075

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Date 2-24-88

SUMMARY OF RESULTS

Contaminant	<u>Emissions</u>		Applicable Rule
	Measured	Allowed	
Sulfur Compounds as H ₂ S	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.

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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-Trichloroethane	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