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

SOURCE TEST REPORT

88-0096

CONDUCTED AT

Pacific Lighting Energy Systems
(Toyon Canyon Landfill)
Mount Hollywood Dr. at Griffith Park Dr.
Los Angeles, CA

EMISSIONS FROM AN INTERNAL COMBUSTION ENGINE
FUELED BY LANDFILL GAS

TESTED: March 8, 1988

ISSUED: JUN 07 1988

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Air Quality Engineer I

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SOURCE TESTING AND MONITORING BRANCH
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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive, El Monte, California 91731

Test No. 88-0096 Date 3/8/88

SUMMARY of RESULTS

Flow Rate 19.5 dscmm (690 dscfm)

Contaminant	Emissions Measured	Emissions Allowed	Applicable Rule
Landfill Gas Heating Value	510 Btu/Cu ft.	Information	431.1 (a)(1)
Sulfur Content of gaseous fuel as H_2S	15.2 ppm	800 ppm	431.1 (b)(4)
Carbon Monoxide	6.3 lb/hr	20 lb/hr	213.1
Oxides of Nitrogen as NO_2	5.5 lb/hr	9 lb/hr	213.1

Test No. 88-0096 Date 3/8/88

TABLE 1

ORGANIC MASS FLOW RATE

Inlet Gas Flow Rate = 690 DSCFM

Compound	Molecular	Concentration (PPM)	Mass Rate (lb/hr)
Vinyl Chloride	62.5	0.42	0.003
Benezene	78.1	0.48	0.004
Toluene	92.2	8.70	0.09
Xylene	106.2	8.10	0.09
Chloroform	119.4	*	*
Trichloroethylene	131.4	0.69	0.01
1,1,1-Trichloroethane	133.4	0.08	0.001
Carbon Tetrachloride	153.8	*	*
Perchloroethylene	165.3	1.10	0.02
Hydrogen Sulfide	34.1	8.3	0.03
Methyl Mercaptan	48.1	3.3	0.02
Carbonyl Sulfide	60.1	<0.5	0.003
Dimethyl Sulfide	62.1	2.6	0.02
Carbon Disulfide	76.1	<0.5	0.004
Methane	16.0	497,000	868.6
NMHC as Hexane	86.2	9,260	87.2

* Not Analyzed due to Interference

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TABLE 2

ORGANIC MASS EMISSION RATE

Exhaust Gas Flow Rate = 5200 DSCFM

Compound	Molecular	Concentration (ppm)	Mass Rate (lb/hr)
Carbon Monoxide	28.0	273.0	6.3
Oxides of Nitrogen as NO_2	46.0	145	5.5
Vinyl Chloride	62.5	<0.0014	0.00007
Benezene	78.1	0.0530	0.003
Toluene	92.2	0.0330	0.003
Xylene	106.2	0.0082	0.0007
Chloroform	119.4	<0.0020	0.0002
Trichloroethylene	131.4	0.0054	0.0006
1,1,1-Trichloroethane	133.4	0.0010	0.0001
Carbon Tetrachloride	153.8	<0.0001	0.00001
Perchloroethylene	165.3	0.0070	0.001
Hydrogen Sulfide	34.1	<1.0	0.03
Methyl Mercaptan	48.1	<0.5	0.02
Carbonyl Sulfide	60.1	<0.5	0.02
Dimethyl Sulfide	62.1	<0.5	0.03
Carbon Disulfide	76.1	<0.5	0.03
Methane	16.0	2500	32.9
NMHC as Hexane	86.2	*	*

* Below level of detection

LN 80688-8

PACIFIC LIGHTING ENERGY SYSTEM

Component	Bag #1 Raw Landfill Gas	Bag #2 Dehumidified Landfill	Bag #3 Exhaust Ga
Benzene, ppb	340	480	53
Toluene, ppb	8300	8700	33
Xylenes, ppb	8000	8100	8.2
Chloroethene (vinyl chloride), ppb	400	420	<1.4
Trichloromethane (chloroform), ppb	*	*	<2.0
1,1,1-trichloroethane (methyl chloroform), ppb	*	81	0.96
Tetrachloromethane (carbon tetrachloride), ppb	*	*	<0.10
Trichloroethylene, ppb	620	690	5.4
Tetrachloroethene (perchloroethylene), ppb	1100	1100	7.0
Hydrogen sulfide, ppm	8.9	8.3	<1
Carbonyl sulfide, ppm	<0.5	<0.5	<0.5
Methyl mercaptan, ppm	3.9	3.3	<0.5
Dimethyl sulfide, ppm	3.5	2.6	<0.5
Carbon disulfide, ppm	<0.5	<0.5	<0.5

* Not Analyzed - Interference