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October 24, 2013

VIA FEDERAL EXPRESS

Stephen D. Berninger, Esq.
Assistant Regional Counsel
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Re: Omega Chemical Superfund Site:
Second Supplemental Response and Production of Documents of Air Liquide America L.P. to 104(e) Request for Information

Dear Mr. Berninger:

In line with my letter to you of August 27, 2013, concerning documents brought to the attention of Air Liquide by the Omega Chemical Site PRP Organized Group in the course of settlement negotiations, I have enclosed herewith the Second Supplemental Response and Production of Documents of Air Liquide America L.P. to 104(e) Request for Information.

I would also like to take this opportunity to thank you for taking the time to speak with me recently about the status of the site.

Very truly yours,

Stephen G. Mason

cc: Stephanie K. Payne, Esq.

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Attorneys for Respondent Air Liquide America L.P.

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

In Re: OMEGA SUPERFUND SITE, Real Property: 8832-8838 Dice Road Santa Fe Springs, California, APN: 8168-012-010.	SECOND SUPPLEMENTAL RESPONSE AND PRODUCTION OF DOCUMENTS OF AIR LIQUIDE AMERICA L.P. TO 104(e) REQUEST FOR INFORMATION

PRELIMINARY STATEMENT

Air Liquide America L.P. ("ALALP") hereby submits its Second Supplemental Response and Production of Documents ("SSR") to the section 104(e) Request for Information ("RFI") of the United States Environmental Protection Agency dated August 13, 2007, in respect of the above-captioned properties (the "Properties").

This SSR was prompted by, and is based on, documents brought to ALALP's attention by the Omega Chemical Site Organized PRP Group ("OPOG")

in the course of confidential settlement negotiations. The documents are a part of the records concerning the Properties maintained by the Santa Fe Springs Fire Department. They are responsive to Requests 7 through 10 of the RFI. They are produced here bearing Bates designations "Dice 02055" through "Dice 02714"; ALALP's first supplemental production of documents dated November 27, 2007 ended with "Dice 02054."

GENERAL OBJECTIONS

ALALP objects to "Instruction No. 7" to the extent it would require the disclosure of information, in whatever form held, protected by the attorney-client privilege, the attorney work product doctrine, the joint defense privilege or the common interest privilege. CERCLA section 104(e) neither preempts nor abrogates state statutory or common law privileges. Therefore, responsive "information and documents independently developed or obtained by research on the part of [ALALP or any of its affiliates by] its attorneys," or consultants, agents or employees working at the direction of counsel, may be privileged or otherwise protected from disclosure. In such cases, ALALP will provide a log listing documents withheld from production.

These General Objections shall be deemed to be incorporated by reference into each and every response below as if set forth fully and completely.

RESPONSES AND PRODUCTION OF DOCUMENTS

REQUEST NO. 7

Provide a list of employees who had knowledge of the use and disposal of hazardous substances at the Air Liquide facility at the Properties during the entire time period that Air Liquide or any of its predecessors, successors, subsidiaries, affiliates, contractors, trustees, assigns or agents, was associated with this facility. For each employee listed, provide the following information:

a. The employee's full name;

b. The employee's current or last known address(es) and telephone number(s), including the last known date on which you believe each address and telephone number was current;

c. The employee's Social Security Number;

d. Identify the entire time period that the employee worked at the facility; and

e. The position(s) the employee held with each business entity during his or her entire period of employment at the facility and the year or years that the employee held each listed position.

RESPONSE NO. 7

In addition to its General Objections, which are incorporated herein by reference, ALALP objects further on grounds that Request Nos. 7b and 7c are violative of the right of privacy expressly conferred upon citizens of the State of California by Article I, section 1 of the California Constitution. ALALP objects further on grounds that disclosing the addresses, telephone and social security numbers of current or former employees in this response makes such information part of an unprotected public record, and could subject such current or former employees to identity theft, financial fraud or other harms and invasions of privacy. ALALP objects further on grounds that disclosing such information could subject ALALP to liability for the violation of constitutional, statutory and common law privacy rights.[1]

Without waiving the foregoing objections, and subject thereto, ALALP responds as follows:

Name	Position(s) and Dates
C.W. Aldrich	Plant Manager, Plant IV, Liquid Air, Inc., 1977
Thomas I. Barber	Plant Manager, Liquid Air Corporation, 1990
Milton Bird	Plant Manager, Liquid Air, 1993
Dennis Buller	Project Engineer, Liquid Air Corporation, Industrial Gasses Division, 1981
Bill Delaney	Plant Manager, California Oxygen Company, 1962

[1] In cases where a single year is given for the dates of employment, it is because the documents produced with this SSR show the subject individual employed in that year. As of October 2013, Air Liquide is without further information concerning such individual(s). Should EPA desire to contact anyone identified in this response, ALALP will, upon EPA's written request and assuming ALALP has the necessary contact information, contact the subject individual and request authorization to provide EPA with his contact information. Individuals currently employed by ALALP or any of its affiliates are represented by ALALP counsel. Inquiries concerning current employees must be addressed to ALALP counsel.

Second Supplemental Response of Air Liquide America L.P.

I.C. Green	Foreman, Burdett Oxygen Co., 1953
Harry Hinkle	Vice President, Liquid Air, Inc., October 16, 1972 to January 31, 1999
Bryan E. Leger, Jr.	Area Technical Services Manager, Liquid Air, Inc., February 6, 1984 to March 22, 1999
Robert Mixon	Foreman, Advanco (vendor for Dice Road project), 1993
Steven L. Pebler	Regional Operations Director, Air Liquide, June 8, 1976 to present
Robert D. Predmore	Director, Cylinder Operations Manager, Liquid Air, Inc., December 6, 1973 to June 17, 2002
A.W. Sass	Manager, Instrument Engineering, Liquid Air, Inc., American Cryogenics and Industrial Air Products Divisions, 1971
David A. Simon	Manager, Regulatory Affairs, Air Liquide America Corporation, April 7, 1975 to June 30, 1998
Jack Smith	Plant Superintendent, California Oxygen Co., 1963
Ray L. Wilson	Plant Manager, Liquid Air, Inc., 1973
Mark R. Young	1989 (title/position unknown)

Documents Produced Supporting Response

See Dice 02055 through Dice 02714.

Parties Providing Information

Documents identified by OPOG.

REQUEST NO. 8

Identify and explain all of the business operations of Air Liquide (including the business operations of Liquid Air, Inc., [f/k/a American Cryogenics) at the Properties, including such information as the size of the facility, number of employees, dates of operation, product(s) manufactured and a description of the daily activities. Include a historical perspective of all changes in operations over time. In addition, provide a scaled map of the facility, which includes the locations of significant buildings and features. Indicate the locations of any maintenance shops, hazardous material or waste storage area(s), machine shops, degreasers, liquid waste tanks, clarifiers, chemical storage tanks and fuel tanks. Provide a physical description of the facility and identify the following:

a. Surface structures (e.g., buildings, tanks, containment and/or storage areas, etc.);

b. Subsurface structures (e.g., underground tanks, sumps, pits, clarifiers, etc.);

c. Groundwater and dry wells, including drilling logs, date(s) of construction or completion, details of construction, uses of the well(s), date(s) the well(s) was/were abandoned, depth to groundwater, depth of well(s) and depth to and of screened interval(s);

d. Past and present stormwater drainage system and sanitary sewer system, including septic tank(s) and subsurface disposal field(s);

e. Any and all additions, demolitions or changes of any kind to physical structures on, under or about the facility or to the property itself (e.g. excavation work), and state the date(s) on which such changes occurred; and

f. Indicate the location of all waste storage or waste accumulation areas, waste disposal areas, dumps, leach fields, burn pits and any other disposal locations.

RESPONSE NO. 8

In addition to its General Objections, which are incorporated herein by reference, ALALP objects further on grounds that Request No. 8 is burdensome and oppressive and lacks proportionality. ALALP objects further on grounds that,

by its terms, Request No. 8 purports to require ALALP to create documents for production that do not already exist and which could take years of research and years to prepare. Specifically, Request No. 8 purports to command ALALP to write a complete, narrative history of the Properties spanning more than half a century and to create a "scaled map" containing depictions of the locations of nine (9) discrete facilities or property characteristics that may have existed at the Properties over that same half century.

Without waiving the foregoing objections, and subject thereto, ALALP responds as follows:

Documents Produced Supporting Response

See Dice 02055 through 02714.

Parties Providing Information

Documents identified by OPOG.

REQUEST NO. 9

Has Air Liquide (including the operations of Liquid Air, Inc., f/k/a American Cryogenics) ever or does Air Liquide currently use, manufacture, produce, or generate any hazardous substances/materials/waste in the operations at the Properties? If your answer is anything other than an unqualified "no" for the entire period since 1950:

a. Identify the trade or brand name, chemical composition, and quantity used for each chemical or hazardous substance, and the relevant Material Safety Data Sheet for each product, and its period of use;

b. Describe the process in which the hazardous substance is or was used, manufactured, generated or produced (including any current or discontinued processes);

c. The location(s) where each chemical or hazardous substance is or was used, stored and disposed of. In addition, identify the kinds of wastes (e.g., scrap metal, construction debris, motor oil, solvents, waste water), quantities and methods of disposal for each chemical or hazardous substance;

d. Describe the waste streams from any process in which any such hazardous substance is, or was used, manufactured, generated or produced;

e. Provide copies of any permits for storage, treatment, or disposal of any waste stream from any process in which any hazardous substance is, or was used, manufactured, generated, or produced;

f. Provide copies of all hazardous material business plans and chemical inventory forms (originals and updates) submitted to city, county and/or state agencies; and

g. Provide copies of all manifests governing hazardous substances generated by your operations at the Properties.

RESPONSE NO. 9

Documents Produced Supporting Response

See Dice 02055 through 02714.

Parties Providing Information

Documents identified by OPOG.

REQUEST NO. 10

Provide copies of all information and documentation related to approval of any remediation or cleanup activities conducted during your ownership or operations at the Properties.

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Second Supplemental Response of Air Liquide America L.P.

RESPONSE NO. 10

ALALP reiterates that its General Objections are incorporated by reference into this response. ALALP therefore objects to Request No.10 to the extent it would require the disclosure of information, in whatever form held, protected by the attorney-client privilege, the attorney work product doctrine, the joint defense privilege or the common interest privilege. Without waiving the foregoing objections, and subject thereto, ALALP responds as follows:

Documents Produced Supporting Response

See Dice 02055 through 02714.

Parties Providing Information

Documents identified by OPOG.

Dated: October 24, 2013

STEPHANIE K. PAYNE
ASSISTANT GENERAL COUNSEL
AIR LIQUIDE USA LLC

STEPHEN G. MASON
COUNSELLOR AT LAW

STEPHEN G. MASON
Attorneys for Respondent Air Liquide America L.P.

REFERENCES

1. California Department of Health Services, Toxic Substances Control Division, "CERCLA Site Inspection of Burdett Oxygen Company," Burbank, California, February 17, 1989.

2. Livermore, Robert S., SCS Engineers, to David Simon, Liquid Air Corporation, letter, re: underground tank testing, July 20, 1987.

3. Esfandi, David, Los Angeles County Department of Public Works, Waste Management Division, and Christopher R. Harner, Ecology and Environment, Inc., personal communication, January 19, 1990.

4. DeVries, George, "Geotechnical Evaluation and Review of Subsurface Tank Removal at Liquid Air Corporation," November 2, 1988.

5. Shacklette, H.T., and E.G. Boerngen, Concentrations in Soils and Other Surficial Materials of the Conterminous United States, U.S. Geological Survey Professional Paper 1270, 1984.

6. Aqua Science Engineers, Inc., "Site Investigation for Acetone Contamination in Soil at Liquid Air Corporation," September 2, 1988.

7. Black, Jerry, San Gabriel Water Company, to Karen Johnson, Ecology and Environment, Inc., letter, June 7, 1987.

8. Pierce, Gene, City of Norwalk Public Works Department, to Wendell Francisco, California Department of Health Services, letter, re: regional well water used, July 20, 1989.

9. Ecology and Environment, Inc., "Site Inspection Report Review of Burdett Oxygen Company," prepared by John Chester for EPA, Region IX, September 29, 1989.

10. Whitaker Concrete Corporation, Total Recoverable Hydrocarbons EPA Method 418.1, soil samples taken 2 feet beneath waste oil tank at Liquid Air Corporation, Santa Fe Springs, California, September 28, 1988.

11. U.S. Geological Survey, map of Whittier, California, 7.5 Minute Series Quadrangle, 1965, (photorevised 1981).

12. California Department of Water Resources, Southern District, Planned Utilization of Ground Water Basins of the Coastal Plains of Los Angeles County, Bulletin 104, Appendix A, Ground Water Geology, 1961.

13. Padmuck, Sharon, City of Downey, Public Works Department, and Christopher R. Harner, Ecology and Environment, Inc., personal communication, March 1, 1990.

14. Hughes, Ron, City of Santa Fe Springs, Department of Public Works, and Christopher R. Harner, Ecology and Environment, Inc., personal communication, March 1, 1990.

15. Pearce, Gene, City of Norwalk, Department of Public Works, and Christopher R. Harner, Ecology and Environment, Inc., personal communication, March 1, 1990.

CONTACT REPORT

AGENCY/AFFILIATION: Los Angeles County Department of Public Works		
DEPARTMENT: Waste Management Division		
ADDRESS/CITY: 900 S. Fremont Avenue, Alhambra		
COUNTY/STATE/ZIP: Los Angeles County, California 91803-1331		
CONTACT(S)	**TITLE**	**PHONE**
1. David Esfandi	Engineer	(213) 458-3509
2.		
E & E PERSON MAKING CONTACT: Christopher R. Harner		**DATE:** 1/19/90
SUBJECT: Underground tank removal		
SITE NAME: Liquid Air Corporation (Burdett Oxygen)		**EPA ID#:** CAD003312600

David Esfandi originally contacted Liquid Air Corporation when a file search revealed that the underground storage tanks at the facility were not permitted. The Department issued an order for the testing of the tanks for leaks.

Testing indicated violations of leak standards in the acetone tank for which the Department of Public Works issued an order of noncompliance. The acetone tank was removed, and a site inspection conducted. Based on the results of the inspection, the Department of Public Works issued a closure report approving the removal.

Mr. Esfandi does not know whether the 1,000-gallon waste oil tank was removed. If it was, a site inspection would have been required to be submitted to the Department of Public Works within 180 days. Mr. Esfandi suggested I contact David Simon at Liquid Air for more information.

F438

CONTACT REPORT

AGENCY/AFFILIATION: City of Norwalk		
DEPARTMENT: Department of Public Works		
ADDRESS/CITY: 12700 Norwalk Boulevard, Norwalk		
COUNTY/STATE/ZIP: Los Angeles County, California 90650		
CONTACT(S)	**TITLE**	**PHONE**
1. Gene Pearce		(213) 929-2677
2.		
E & R PERSON MAKING CONTACT: Christopher R. Harner		**DATE:** 3/1/90
SUBJECT: Norwalk municipal wells		
SITE NAME: Liquid Air Corporation (Burdett Oxygen)	**EPA ID#:** CAD003312600	

Mr. Pearce provided the following information in addition to the distances of each well to the site:

State Well Number	Owner Designation	Perforated In	Distance to Site
3S/12W-13L01S	Leffingwell	Jefferson	3.75 miles
3S/11W-18L01	San Antone #2	abandoned	3.25 miles
3S/11W-18L02	San Antone #8	Lynwood Jefferson Hollydale	3.25 miles

Combined, the San Antone #8 and the Leffingwell wells supply 2200 to 2300 people.

F438

CONTACT REPORT

AGENCY/AFFILIATION: City of Downey		
DEPARTMENT: Department of Public Works		
ADDRESS/CITY: 11111 Brookshire Avenue, Downey		
COUNTY/STATE/ZIP: Los Angeles County, California 90241		
CONTACT(S)	**TITLE**	**PHONE**
1. Sharon Padmuck		(213) 869-7331
2.		
E & E PERSON MAKING CONTACT: Christopher R. Harner		**DATE:** 3/1/90
SUBJECT: Downey municipal wells		
SITE NAME: Liquid Air Corporation (Burdett Oxygen)	**EPA ID#:** CAD003312600	

Ms. Padmuck informed me that the city wells serve a population of 23,000 people in Downey. It is blended with about 10% Municipal Water District water during the dry months.

The following wells within 3 miles of the site are all in operation. They probably are perforated in the Lynwood aquifer, although Ms. Padmuck could not provide perforation depths.

State Well #	Downey Well #	Distance to Site
2S/12W-35K01	#06	3 miles
2S/12W-35P01	#10	3 miles
2S/12W-02M04	#12	3 miles

F438

CONTACT REPORT

AGENCY/AFFILIATION: City of Santa Fe Springs		
DEPARTMENT: Department of Public Works		
ADDRESS/CITY: 11714 East Telegraph Road, Santa Fe Springs		
COUNTY/STATE/ZIP: Los Angeles County, California 90670		
CONTACT(S)	**TITLE**	**PHONE**
1. Ron Hughes		(213) 868-0511
2.		
E & E PERSON MAKING CONTACT: Christopher R. Harner		**DATE:** 3/1/90
SUBJECT: Santa Fe Springs municipal wells		
SITE NAME: Liquid Air Corporation (Burdett Oxygen)	**EPA ID#:** CAD003312600	

According to Mr. Hughes, the City of Santa Fe Springs currently operates Well #1 and Well #2.

State Well #	Owner Designation	Location
3S/11W-30R03S	Well #1	Dice Road and Burke
3S/11W-20R09	Well #2	Over 4 miles from site
3S/11W-06D03	Well #4	Approximately 1 mile from site

Well #1 supplies the northern portion of the city.
Well #2 supplies the southern portion of the city.
Well #4 is a standby well.

Overall, approximately 55% of the water delivered to the city is from the Municipal Water District, while 45% is groundwater. The system is not completely blended. Mr. Hughes could not provide perforation depths when we contacted him. He also could not speculate on the population served by the wells.

F438

APPENDIX

CERCLA Site Inspection
California Department of Health Services

F438

PURPOSE: CERCLA SITE INSPECTION

SITE: Burdett Oxygen Company of California (CKA Liquid Air Corporation)
8832-8838 South Dice Road
Santa Fe Springs, CA 90670

EPA ID #: CAD 982359747

ASPIS #: 19-28-0224

INVESTIGATORS: Wendell Francisco
Hazardous Materials Specialist
Susan White
Hazardous Materials Specialist

Date of Inspection: February 17, 1989

Report Prepared By: Wendell Francisco

Report Date: June, 1989

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1.0 INTRODUCTION:

The Burdett Oxygen Company (AKA Liquid Air Corporation) currently produces acetylene and repackages gases including carbon dioxide, hydrogen, helium, nitrogen, dinitrogen oxide, oxygen, propane and fuel gas for medicinal and industrial use. The facility has been in operation in Santa Fe Springs since 1946. Historical investigations of the site have revealed releases of waste products to the environment by facility operators. On-site disposal of process wastes to unlined pits has occurred. Poor waste disposal and handling practices have also been noted. Waste parameters including pH as high as 12.4, possible high toxicity and persistence, and potential carcinogencity have been cited (1). The purpose of this report is to summarize previous investigations and make recommendations for further actions.

2.0 SITE CHARACTERIZATION:

2.1 SITE HISTORY AND DESCRIPTION:

Burdett Oxygen Company (BOC) is owned and operated by Liquid Air Corporation, 2121 N. California Blvd., Walnut Creek, CA (2). In 1957, the facility was called Burdett Oxygen of California. In 1962, the facility operated as California Oxygen Company, and by 1964 was known as the California Oxygen Division of American Cryogenics, Inc. (3,4). In 1971, the facility was known as the American Cryogenics Division of Liquid Air Inc. In 1980, the air separation plant was acquired by M.G. Burdett Gas Products Company. The entire facility is currently owned by the operator, Liquid Air Corporation (LAC) (1,2,5,6).

BOC is located at 8832-8838 Dice Road, Santa Fe Springs, CA in northeastern Los Angeles County (7) (Figure 1, Site Location Map: T2S,R11W, Section 31). The site is situated on level terrain on a panel of 4 1/2 to 5 acres. The facility has been in operation for approximately 31 years in a primarily industrial area of Santa Fe Springs.

The site configuration has changed considerably over the 31 years of operation. The present facility configuration (Figure 2) shows the facility structures and two unlined quarry pits. Structures on-site include: an administrative office, an industrial gas-cylinder fill building, a garage, an acetylene plant, a hydrogen gas plant and an air separation (Alpha gas) plant. The air separation plant and the hydrogen plant are located at the southwest end of the site. The administrative office and the industrial gas-cylinder fill building are located on the north end of the facility. The garage and acetylene plant are centrally located. The two unlined quarry pits are located on the east end of the site between two southern Pacific

Railroad spurs (2).

The site is located approximately 1 mile east of the San Gabriel Freeway. The facility is now completely paved except for the area surrounding the quarry pits. The site is enclosed by a fence with a security guard at the front gate. The Southern Pacific Railroad extends along the southern boundary of the facility.

From 1949 to 1955, periodic inspections by the Los Angeles County Department of the County Engineer (LACE), indicated that BOC was in compliance with the requirement of an industrial waste permit under Los Angeles County Ordinance 6130 (LAC Ord. 6130) (8). Waste sludge from acetylene production and coolant water were discharged under this permit to the unlined quarry pit or pits (8,9). In 1962, LACE inspectors observed an indirect waste trap that resulted in the deposit of caustic effluent into an earthen pit at the facility. The LACE inspectors ordered a direct connection of the effluent to the 1962 ~~unlined quarry pit(s)~~. A representative sample of the caustic effluent measured pH 12.4 (10). In 1963, it was discovered that liquid waste from ~~cleaning and~~ cooling tower basin was discharged into the unlined drainage channel, located south of the formerly standing cooling tower. No further actions were recommended by LACE. In 1949 and 1964, LACE inspectors discovered a violation of LAC Ordinance 6130, consisting of a caustic waste spill on the ground surface. A clean-up order was issued in 1964 (11). In 1964, LACE inspectors ordered company officials to discontinue unpermitted discharge of caustic wastes to the public sewer system (12).

In 1976, representatives of the California Regional Water Quality Control Board, Region 4 (RWQCB) reported illegal discharges of acetylene production wastes and cooling tower water to an unlined drainage channel known as North Fork Coyote Creek, for which clean-up orders were issued (13,14,15). Analysis of the process effluent revealed a measured pH of 12.2 and total dissolved solids concentrations (TDS) of 3,220 mg/l (1). As a result, in 1977, RWQCB ordered Liquid Air to comply with waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES). Effluent limits under the NPDES permit included pH 6.0-9.0 and maximum TDS of 700 mg/l (1). Later in the same year, the RWQCB documented excessive quantities of acetylene process wastes deposited in the drainage channel in violation of permit requirements (16). The NPDES permit was allowed to expire by RWQCB with the understanding that no further discharge of indicated wastes to surface waters would be conducted (17,18). In 1981, a facility drive-by conducted by DHS representatives confirmed the presence of acetylene (quarry) sludge ponds containing liquid wastes on site (19). In 1982, the facility was referred to DHS for consideration by the enforcement unit (19,20).

In 1986, it was revealed that a 6200 gallon underground acetone storage tank was leaking at a rate of 0.1566 gal/hr from the facility (21,22,23). The allowable leak rate is 0.05 gal/hour (24,25). A letter of noncompliance regarding the leaking acetone tank was issued by the Department of Public Works Waste Management Division Los Angeles County (25).

In February, 1988, it was revealed that ten or more piles of white to gray waste material were sitting on the unpaved ground surface along the southern border of the waste pit area. In March, 1988, a Santa Fe Fire Department inspection revealed the storage of twenty to thirty 55 gallon drums containing oil, paint, and other wastes near the waste pits (26,27). These drums were relocated to a properly paved storage area and segregated according to compatibility (2). As of July 21, 1989, DHS received a letter from Liquid Air Corporation stating that the 55 gallon drums containing oil, paint and other waste have been properly disposed of or recycled (28).

The facility is currently under permit as Alpha Gas by the South Coast Air Quality Management District (SCAQMD). The SCAQMD has no record of any enforcement action taken at the facility (29).

2.2 Process Description:

The company manufactures acetylene and repackages gases including carbon dioxide, hydrogen, nitrogen, dinitrogen, oxygen, propane and fuel gas for medicinal and industrial uses. The acetylene manufacturing process uses the reaction of calcium carbide stock with water to produce acetylene and slaked lime as shown below:

$CaC_2 + 2H_2O$ --- $Ca(OH)_2 + C_2H_2$ (gas)...typically with a variety of trace impurities (30,31).

The company excavated two pits, estimated at 500,000 cubic feet in volume, to accumulate sludge by-product, principally slaked lime (8,9). The gas repackaging process consists of vaporizing liquid gases, then repumping and compressing the gases into cylinders (2). Some liquid gases are repackaged and shipped as liquid product while others are vaporized and pumped into cylinders for transport as vaporized gas. There are no by-products produced from the vaporization process (2).

Cylinders containing the following gases are currently produced at the BOC site: oxygen, nitrogen, argon, helium, carbon dioxide, compressed air, acetylene, hydrogen, propane, and speciality gas-mixtures (2,32).

In 1946, the acetylene manufacturing plant was established. In 1957, an air separation plant for the production of oxygen was installed. In 1971, the acetylene plant was reconstructed due to its destruction

by fire in the previous year (33). In 1980, the air separation or liquid plant was closed and has remained inoperative to the present day (2,5).

In the Industrial Gas-Cylinder Fill building oxygen, nitrogen, argon, helium, carbon dioxide, compressed air and hydrogen are transferred from large (truck tankers) to smaller cylinders (2). In the Acetylene plant, acetylene, produced in a controlled reaction of calcium carbide and water, is stored under pressure in cylinders and the lime by-product is hauled away by sub contractors. One 55 gallon drum of sulfuric acid per year is used to clean the piping in the acetylene manufacturing plant. In the garage 200-400 gallons of oil per year is used for trucks and compressors. In the maintenance building, one 55 gallon drum of III trichloroethane per year is used for cleaning pipes on the oxygen tanks used by hospitals and also as a cleaning solvent for engine parts (2).

2.3. Waste Management Practices:

No waste products are produced in the Industrial Gas-Cylinder Fill plant, since the process is principally transferring gas from one container to another. In the Acetylene plant, slaked lime ($Ca(OH)_2$) is produced as a liquid-sludge waste product. The lime is daily deposited in two large 500,000 cubic feet unlined slurry pits. Slaked lime is produced at BOC at a rate of 92 tons of dry lime per month. Approximately 55 gallons of spent liquid sulfuric acid is generated per year from the Acetylene plant. About 200-400 gallons of spent motor oil is generated per year from the company garage. Approximately 55 gallons of spent III Trichloroethane is generated per year from the maintenance building (2).

A tractor is used to transport lime sludge from the quarry pits to an adjacent milling machine. After the lime has been milled, it is hauled away by large trucks. Spent sulfuric acid, waste oil, and TCE are all stored in an enclosed, paved area in the former air separation plant located on the west side of the facility. Drums are grouped based on chemical characteristics. ENSCO Environmental Services of Irvine has been contracted to haul drummed waste products (2).

There are four above ground storage tanks located southeast of the plant office. Liquid argon, nitrogen and oxygen are separately stored in the three above ground storage tanks. All three tanks are sitting on the paved ground surface and have been in use since 1980. In the Industrial Gas Cylinder Filling area, water is constantly dripping over the valves of the cylinders being filled. This is a safety measure to assure that a spark that may produce a chain reaction of explosions does not occur (2).

In 1976, the RWQCB, Region 4 issued clean up orders for the illegal discharges of acetylene production wastes and cooling water to the North Fork Coyote Creek, an unlined drainage channel (13,14,15). Analysis of the process waste effluent revealed a measured pH of 12.2 and total dissolved solids concentration of 3,320 mg/l (1). Later in the same year, RWQCB documented excessive quantities of acetylene process waste deposited in the drainage channel in violation of permit requirements (16). BOC eventually allowed the National Pollutant Discharge Elimination System (NPDES) permit to expire and begin discharging acetylene process and cooling waters into two large onsite unlined pits (17,18,19). The lime pits are located on the east portion of the BOC site. The acetylene waste water is pumped from the Acetylene plant through a rubber hose out to the lime pits. The pits appear to be greater than 50 feet deep and there is an opaque-green liquid standing on the bottom of the two pits. A floor drainage system collects acetylene process run-off and pumps it out to the lime pits (2).

2.4. Permit:

BOC is not listed in the RCRA data base. In 1977, the RWQCB ordered BOC to comply with waste discharge under the National Pollutant Discharge Elimination System (NPDES). Effluent limits under the NPDES permit included pH 6.0-9.0 and maximum TDS of 700 mg/l (1). In 1976, BOC was not in compliance with the NPDES permit. The NPDES permit was allowed to expire by the RWQCB with the understanding that there would be no further discharges of the indicated wastes to nearby surface waters (17,18). BOC no longer discharged to U.S. Waters, but instead directed effluent to the slurry pits at the east of the facility (19,20). Currently, BOC does not discharge process waste by-products to the sewer.

2.5. Remedial Action:

BOC was ordered by the RWQCB to clean-up the North Fork Coyote Creek, an unlined drainage channel. There is an ongoing removal of lime sludge from the the acetylene slurry pits on-site. This lime is milled and hauled away to be used on roads and agricultural fields.

3.0. Environmental Setting:

3.1. Surrounding Area:

The BOC site is situated on the Santa Fe Springs Plain in the northeast portion of the Los Angeles Coastal Plain. The Santa Fe

Springs plain is a low, slightly rolling topographic feature that has been shaped by the Santa Fe Springs Coyote Hills anticlinal system. The plain dips moderately to the northeast toward Whittier and to the southwest towards the Downey Plain. Total elevation difference ranges from 175 to 200 feet above sea level (34).

The San Gabriel River Channel is located 1 mile west of the site and a percolation basin is located less than 3 miles northwest of the site. The Sorenson Avenue storm drain, located 1/4 mile northeast of the site, is tributary to Coyote Creek which is located approximately 3 miles southeast of the site (Figure 1).

The surrounding population of the City of Santa Fe Springs is 15,000. Distance to Southern California Chemical Company which has the nearest off site building is less than 500 feet west of the site. Witco Organics Company is less than 1,000 feet northwest of the site. An upaved lot is located less than 200 ft. southwest of the facility on the east side of the Dice Rd. (Figure 3). There are no sensitive environments within the site vicinity such as wetlands, nature preserves, or critical habitats.

One year, 24-hour rainfall for the area is 2 inches (Figure 4). Net seasonal precipitation is -.30 inches (35). Local streams are intermittent due to the seasonal nature of the climate.

3.2. Geology:

The site is located on Upper Pleistocene alluvium of the Lakewood Formation. The Lakewood Formation unconformably overlies the Lower Pleistocene San Pedro Formation, the Pleistocene Pico, the Repette, and Miocene Puente formations (34). Underlying the site are the Lakewood and San Pedro formations which are fresh water bearing units containing Hollydale, Jefferson, Silverado, and Sunnyside Aquifers at increasing depth (1,34,36).

The site is located on the surface exposure of the Bellflower aquiclude, a low permeability layer of the Lakewood Formation. The aquitard, which is 15 - 20 feet thick, consists of gravelly clays, silts, silty clays, and sandy clays (34,37). The lower portion of the Lakewood Formation is the Gage Aquifer which is composed of fine to medium sands approximately 20 feet thick (Figure 5 and 6). Soil borings taken at a nearby facility (Southern California Chemical Company) indicate the base of the Gage Aquifer is located at a depth of 30 feet, however it is dry beneath the nearby site (34,37). The San Pedro Formation unconformably underlies the Lakewood Formation and its uppermost layer is an aquitard comprised of clayey silts and silty clays. It is 5 to 30 feet thick, according to nearby site boring logs, and separates the Gage from the Hollydale aquifer (38).

The Hollydale Aquifer is encountered at a depth of 60 feet below the site surface to approximately 100 feet (34,37). Regional groundwater flow is towards the south to southwest (36,37).

3.3. Hydrology:

3.3.1. Surface Water:

Drainage off of the site flows to the Sorenson Avenue storm drain, a concrete lined channel located 1/4 mile northeast of the facility. The storm drain is tributary to Coyote Creek which is located 3 miles to the southeast. The San Gabriel River is located 1 mile to the west and the San Gabriel percolation basin is located further upstream. The Rio Hondo River and percolation basin are located approximately 3 miles northwest of the site (see Figure 1).

3.3.2. Groundwater:

The site is located on a surface exposure of the Bellflower Aquiclude, a low permeability portion of the Lakewood, Formation, a late pleistocene alluvial formation approximately 20-25 feet thick in the vicinity location (34,37). Boring logs for monitoring wells in the vicinity of the site reveal 10-15 foot thickness of the Bellflower Aquiclude which is comprised mainly of clays (37,38). The unsaturated zone is comprised of gravelly clay, silty clay and clay with a permeability or hydraulic conductivity of 10^{-5} to 10^{-7} cm/sec and less (37,38,39).

The Gage Aquifer is found 5-15 feet beneath the aquiclude and is 15-30 feet thick beneath the site and consists of sands and is comprised of clays and lies beneath the site surface at a depth of 30 to 60 feet (38). The Lynwood Aquifer lies beneath the San Pedro aquiclude and beneath the site at a depth of 200 feet and extends for 80 feet. The Silverado aquifer lies beneath the site at 300 feet and extends 200 feet in thickness. The Sunnyside aquifer is found at a depth of 560 feet below the surface at depth of approximately 850 feet. The Gage, Hollydale, Jefferson, and Lynwood aquifers are hydrologically interconnected within 3 miles of the site. The Silverado and Sunnyside aquifers are not hydrologically interconnected within a 3 mile radius of the site (Figure 6). General regional groundwater flow in the area is south to southwest (37).

Depth to groundwater in the Central Basin of the Los Angeles Plain occurs at 30 to 35 feet depth to the Gage Aquifer beneath the surface (37). Depth to groundwater beneath the site is approximately 42 feet (34).

A hydrogeologic assessment conducted in the vicinity of the site, indicated that a confined aquifer exists beneath the site at a depth from 42 to 45 feet. Low permeability soils were encountered 10 feet below the ground surface. A second low permeability zone was encountered approximately 25 feet below the surface (38,39,40).

The area is served by several water purveyors within a 1 mile radius of the site. The San Gabriel Valley Water Co., has 2 active wells at State well location 2S/11W-18Q, Plant 1. The wells reach depths of 530 to 552 feet and are perforated at several depths in several of the local aquifers. These two active wells serve The Community of Whittier, California at a population of 17,000 people (41). The City of Norwalk Public Works operates one well within a 3 mile radius of the site and the population served is 7734. It is state well no. 3 s/11W-18M02 and is 1002 feet in total depth. The well is perforated in the Jefferson and Lynwood aquifers (42). The City of Santa Fe Springs Water Department operates State well no, 2S/11W-30RS that is located at the Santa Fe Springs Fire Station, 1180 feet north of the site. It is the nearest well to the site and is used for municipal supply (43). The well is 900 feet in depth and is perforated in the Lynwood, Silverado, and Sunnyside aquifers (42,43). The population served by municipal wells within a 1-mile radius of the site is 15,067 (41,42). There are over 50 wells within a 3-mile radius of the site (Figure 7).

~~Depth to the aquifer of concern for the site is 200 feet to the Lynwood Aquifer which extends 80 feet (Figure 6). Wells used for municipal supply located within a 1 mile radius of the site indicate perforations within these depths (41,42,43). The Gage Aquifer is dry within the vicinity of the site, however a perched groundwater condition was discovered at 42 feet beneath the site (37).~~ Depth to aquifer of concern is 42 feet due to aquifer interconnecti

4.0. SUMMARY OF INVESTIGATIVE EFFORTS:

4.1. Previous Activities By Other Agencies/Responsible Party:

Sampling by DHS was not conducted by BOC. Ralph Stone and Company (RSC) on June 24, 1987 obtained samples for the waste classification of waste produced by Liquid Air Corporation. The RSC report was submitted to the RWQCB and was also to satisfy all requirements of the TOXIC PITS Clean-up Act (TPCA) of 1984 (44).

The objective of this sampling effort was to determine if the lime pits were hazardous or non hazardous. Based on the sampling protocol, laboratory test results, chain of custody documentation and sampling locations, the BOC site lime pits were found to be non hazardous (44).

4.1.1 Discussion and Evaluation of Previous Sampling/Testing Results:

Previous sampling has been performed at the facility by RSC, Inc. There are currently two pits used by Liquid Air Corp. Since each pit is filled with fresh, hot liquid lime, allowed to solidify, then excavated, a composite sample from one pit should represent both pits. There is no variation of raw material being fed into the acetylene generator, therefore there should be no variation of the chemical constituents in each of the lime pits. One lime pit contains liquid lime while the other pit contains solid lime. Eight samples were taken from the solid lime pit (S1 thru S8) and four samples were taken from the liquid lime pit (L1 thru L4) (Figure 8).

Figure 8: Dates and Locations of Collected Samples.

Type of Sample Collected	Sample Location	Date Collected	Field Sample
Grab samples	Solid lime pit	6/4/87	S1 thru S8
Grab samples	Liquid lime pit	6/4/87	L1 thru L4

In the solid pit, grab samples were taken using clean equipment and samples jars. The equipment was cleaned after each sample with distilled water. In the liquid pit, a glass jar was attached to twenty feet of PVC pipe. Samples were scooped into the jar and poured into a clean glass sample jar. The jar attached to the PVC pipe was cleaned after each sample was taken. Collected samples were stored in an ice chest. Each sample was properly labeled and the caps were secured with electrical tape. Upon completion of sampling, samples were promptly delivered to the testing laboratory in an ice chest sealed with chain of custody tape. The laboratory was instructed to place samples in a refrigerator (44).

Sample locations for each respective lime pit are available on figure 9 and 10. Results of analysis performed on samples are found in Table 1, 2, and 3.

TABLE 1

Report of Analytical Results for Solid Slurry Pit.

Log No.	Sample Description, Soil Samples	Date Sampled
06-086-1	Comp. S(1-8)	04 Jun 87
06-086-2	S1	04 Jun 87
06-086-3	S2	04 Jun 87
06-086-4	S3	04 Jun 87
06-086-5	S4	04 Jun 87

Parameter	06-086-1	06-086-2	06-086-3	06-086-4	06-086-5
Selenium, mg/kg	<0.4	—	—	—	—
Silver, mg/kg	3.4	—	—	—	—
Thallium, mg/kg	<5	—	—	—	—
Vanadium, mg/kg	17	—	—	—	—
Zinc, mg/kg	2.0	—	—	—	—
Nitric Acid Digestion Date	6/11/87	—	—	—	—

TABLE 2

Report of Analytical Results for Solid Slurry Pit.

Log No.	Sample Description, Soil Samples	Date Sampled
06-086-1	Composite S(1-8)	04 Jun 87
06-086-2	S1	04 Jun 87
06-086-3	S2	04 Jun 87
06-086-4	S3	04 Jun 87
06-086-5	S4	04 Jun 87

Parameter	06-086-1	06-086-2	06-086-3	06-086-4	06-086-5
RCRA Reactivity Requirements					
Cyanide Generation, mg/kg	<10	—	—	—	—
Reactivity with H20/ Acid/Base, mg/kg	NR	—	—	—	—
Sulfide Generation, mg/kg	<1	—	—	—	—

Parameter	06-086-1	06-086-2	06-086-3	06-086-4	06-086-5
CN Amenable to chlorination					
Cyanide, Total,mg/kg	UTD	—	—	—	—
CN amenable to chlorination,mg/kg	UTD	—	—	—	—
Hexavalent Chromium, mg/kg	<5	—	—	—	—
Sulfide, mg/kg	43	—	—	—	—
pH, Units	11.9	—	—	—	—
Sample Held, Not Analyzed					
Fluoride, mg/kg	<1	—	—	—	—
Antimony, mg/kg	<8	—	—	—	—
Arsenid, mg/kg	0.6	—	—	—	—
Barium, mg/kg	13	—	—	—	—
Beryllium, mg/kg	0.09	—	—	—	—
Cadmium, mg/kg	<0.5	—	—	—	—
Chromium, mg/kg	1	—	—	—	—
Cobalt, mg/kg	<1	—	—	—	—
Copper, mg/kg	2.9	—	—	—	—
Lead, mg/kg	<5	—	—	—	—
Molybdenum, mg/kg	<5	—	—	—	—
Nickel	11	—	—	—	—

TABLE 3

Report of Analytical Results for Liquid Slurry Pit.

Log No.	Sample Description, Soil Samples	DATE SAMPLED
06-086-1	Composite L(1-4)	04 Jun 87
06-086-2	L1	04 Jun 87
06-086-3	L2	04 Jun 87
06-086-4	L3	04 Jun 87
06-086-5	L4	04 Jun 87

Parameter	06-086-1	06-086-2	06-086-3	06-086-4	06-086-5
Hexavalent Chromium, mg/kg	<5	—	—	—	—
pH, Units	11.9	—	—	—	—
Sample Held, Not Analyzed	—	—	—	—	—

Further results for analysis performed on samples are found in Appendix D. Generally, no hazardous constituents were found during the analytical analysis of the sample from the BOC lime pits (44).

Soil sampling was performed by Bruce Glasberg, R.E.A. of Ralph Stone and Company, Inc. The samples were taken to Brown & Caldwell Laboratories for analysis. Results of samples submitted to the laboratory indicate that the lime pits are non hazardous. No parameter was found to exceed state standards (44).

4.2. DHS Site Inspection:

4.2.1. DHS Activities:

A CERCLA site inspection was conducted on February 17, 1989 for the purpose of gaining the most recent information regarding the site processes, waste management practices, and site layout and condition of acetylene sludge pits. The site investigation does not include sampling as previous sampling of the acetylene sludge pits has indicated that the pits are non-hazardous. For purposes of this site investigation-only a site reconnaissance visit was performed.

5.0. HRS FACTORS:

There is no documented evidence which supports an observed release to groundwater, surface water or air from Burdett Oxygen Corporation site.

Fire and Explosion:

It has been documented that in 1971, the acetylene plant was reconstructed due to its destruction by fire in the previous year (33).

Direct Contact:

There is no record of direct contact or exposure with the public. The facility is well secured, fenced and guarded.

Waste Type:

Yearly wastes generated on-site consist of 55 gallons of spent sulfuric acid, 55 gallons of TCE, 200-400 gallons of spent motor oil and 1104 tons of dry lime (2). Waste sulfuric acid, oil, and TCE are all stored in an enclosed, paved area in the former air

separation plant to the west of the facility. Drums are grouped based on chemical characteristics. ENSCO Environmental Services of Irvine has been contracted to haul away drums (2). The slaked lime (calcium hydroxide) is deposited in two lime pits (125 ft. x 80 ft. x 50 ft. deep and 125 ft. x 80 ft. x 50 ft. deep) (44).

Sulfuric acid is a colorless, oily liquid which is extremely irritating, corrosive and toxic to tissue. TCE is an organic solvent about that decomposes and emits toxic fumes of Cl- when heated. Slake lime or sodium hydroxide consists of colorless crystals can cause dermatitis and irritation to eyes and mucus membranes upon contact for sodium hyphoxide dust (45).

Waste Quantity: waste quantity only includes hazardous substances with a ~~zero~~ non-zero containment score. Dry lime doesn't count since it is non hazardous. TCE, sulfuric acid probably don't count since they are stored in intact drums.

Yearly, 55 gallons of sulfuric acid and TCE are generated by the facility. 200-400 gallons of spent oil and 1104 tons of dry lime is generated by BOC on a yearly basis (2).

Groundwater:

Soil boring logs from monitoring wells drilled in the vicinity of BOC show a depth to water of about 42 to 45 feet and indicate that the Gage Aquifer is dry in the vicinity of the site (38). Screened intervals for other monitoring wells in the area are approximately 45 to 75 feet below the surface. ~~The aquifer of concern for the site vicinity is the Lynwood Aquifer, found at a depth of 200 feet beneath the ground surface (38). Several municipal wells located within a 1 mile radius of the site are perforated in this aquifer (41,42,43).~~

The City of Santa Fe Springs Water Department operates State well no. 25/11W-30RS that is located at the Santa Fe Springs Fire Station, 1180 feet north of the site. It is the nearest well to the site and is used for municipal supply (43). The well is 900 feet in depth and is perforated in the Lynwood, Silverado, and Sunnyside aquifers (42,43). The population served by municipal wells within a 1-mile radius of the site is 15,067 (41,42). There are over 50 wells within a 3-mile radius of the site (Figure 9).

Surface Water:

Surface water bodies located within a 3 mile radius of the site are not used for municipal, irrigation, or recreational uses. The San Gabriel River, located 1 mile west of the facility is a flood control channel. Drainage off site flows to the Sorenson Avenue Drain, located 1/4 mile northeast of the site. Facility slope is nearby level and it does not appear that surface runoff from the site would affect surface water bodies except via the Sorenson Avenue storm drain.

6.0. RECOMMENDATIONS AND CONCLUSIONS:

Burdett Oxygen Company CKA Liquid Air Corporation located at 8838 Dice road, Santa Fe Springs, CA has operated an acetylene manufacturing plant, and a repackaging of industrial and medicinal gas operation using such gases as CO_2, H_2, He, N_2, N_2O, O_2, propane, and fuel gas. The BOC site has been in operation since 1957.

Samples were taken from the two slurry pits at the site to determine whether hazardous substances were being stored in them. Ralph Stone and Company, Inc. conducted the sampling effort which revealed that the slurry pits at the BOC were non-hazardous.

It is therefore unlikely that this site will be eligible to be listed on the NPL due to a lack of documented on-site hazardous waste.

EPA: No further Remedial Action Planned Under CERCLA based on a low potential to quality for the NPL.

DHS: No further Remedial Action recommended for the state since waste constituents in the facility sludge ponds are considered non-hazardous.

7.0 References

1. Preliminary Assessment, Burdett Oxygen Corporation (BOC), Prepared by John Hostak: March, 1988.

2. CERCLA Site Reconnaisance Visit; telephone conversations (2-2-89,5-25-89) BOC, Tom Barber-Plant Manager; February 17, 1989.

3. LACE Request for Name Change, Burdett Oxygen Co. to Cal. Oxygen Co,; June 7, 1962.

4. City of Santa Fe Springs Industrial Waste Permit Application, American Cryogenics, Inc.; March 31, 1964.

5. Letter from M.G. Burdett to LACE; August 5, 1981.

6. LACE Request for Name Change, American Cryogenics to Liquid Air; June 4, 1975.

7. TRW Parcel List, Real Estate Information Services, First Dice Road Co.

8. LACE Inspection Reports, 1949-1955.

9. LACE Application for Industrial Waste Permit for Burdett Oxygen Company; October 25, 1946.

10. LACE Internal Memo, Bob Moore; January 2, 1963.

11. LACE Inspector's Report, R. Cathey; February 24, 1964.

12. LACE Internal Memo-Sewer Stoppage File, J.H. Stewart; September 10, 1964.

13. RWQCB Letter to Liquid Air; May 1976.

14. RWQCB Inspection Report, N.O. Acedera; July 6, 1976.

15. RWQCB Letter to Liquid Air; July 1976.

16. RWQCB Letter to Liquid Air Inc; November 4, 1977.

17. RWQCB Compliance Inspection Report, T.R. Bell; August 3, 1981.

18. RWQCB Letter to Liquid Air Corporation; December 14, 1981.

19. DHS-ASPIS Data File; March 21, 1987.

20. DHS Internal Memo, Maria Duraul; July 15, 1982 (with attachments).

21. County of Los Angeles O.P.W. Letter to SCS Engineers; December 17, 1986.

22. Work Plan Proposal, Underground Tank Investigation for Liquid Air Corporation, by SCS Engineers; October 31, 1986. (excerpts).

23. Memo to File/Contact Report, March 3, 1988, Kent Madenwald.

24. Letter from SCE Engineers to Liquid Air Corporation: Tank Test Results; July 20, 1987.

25. County of Los Angeles DPW Notice of Non compliance, Hazardous Materials Underground Storage Permit for Liquid Air Corporation; March 8, 1988.

26. Memo to File/Contact Report, March 11, 1988, Dave Klunk.

27. Memo to File/Contact Report, March 15, 1988, Ken Smith.

28. Letter from David N. Simon, Liquid Air Corporation to Wendell Francisco, Department of Health Services, July 11, 1989.

29. Memo to File/Contact Report, March 8, 1988, Larry Stiles.

30. Internal Report from Charles E. Rozzelle, Regional Planning Commission; October 29, 1946.

31. Encylopedia of Chemical Technology, Vol., pp. 206-211; Witey-Interscience, 3rd. Ed. (1981).

32. DHS Abandoned Industrial Waste Disposal Site Survey for Liquid Air; January 15, 1981.

33. Letter from Twyman Engineering Co. to LACE, Janurary 19, 1971.

34. LA Region, RWQCB, Comprehensive Ground Water Monitoring Evaluation of the Southern California Chemical, Co., EPA ID NO. CAD008488025; June 3, 1988.

35. U.S. Dept. of Commerce, Climatic Atlas of the United States, July 1968.

36. Preliminary Assessment, SCC, Inc., Prepared by Greg Ratiliff; November 30, 1987.

37. DWR, Southern District, Bulletin 104, Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology of the Coastal Plain of Los Angeles County, Areal Geology.

38. J.H. Kleinfelder & Assoc., Southern California Chemical Company, Santa Fe Springs, Log of Borings.

39. J.H. Kleinfelder & Assoc., Hydrogeologic Assessment, Pond Number 1, SCCC, Santa Fe Springs, CA.

40. Davis S.N., Porosity and Permeability of Natural Materials in Flow-Through Porous Media, R.J.M. DeWest ed., Academic Press, New York, 1969.

41,. Letter from, Jerry Black, San Gabriel Valley Water Co.; to Karen Johnson, Ecology and Environment, June 7, 1989. 1987.

42. Memo of Call, Gene Pierce, City of Norwalk Public Works; July 20, 1989.

43. Memo of Call, Ron Hughes, City of Santa Fe Springs Water Dept.; July 17, 1987.

44. Ralph Stone and Company , Inc., Liquid Air Corporation, Santa Fe Springs, Waste Classification Form Submission For Liquid Air Corporation, Santa Fe Springs, CA June 24, 1987.

45. Dangerous Properties of Industrial Materials, Sixth Edition. Sax N.I, Van Nostrand Reinhold Comapny, 1984.

Plan Check No. _____

Santa Fe Springs
JURISDICTION

Region No. _____

I-File No. 225-1H

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

PLAN CHECK INSTRUCTION SHEET

8832 Dice Rd. — BUILDING ADDRESS
Santa Fe Springs — LOCALITY

Liquid Air, Inc. — OWNER
1 Embacadero Ctr., 12th Floor, S.F. CA 94111 — MAILING ADDRESS
TELE. NO.

Environmental Services Div.-ENV, Inc. — ARCHITECT OR ENGINEER
716 W. 14th St. L.B. CA 90813 — TELE. NO.

Att'n: Mr. Paul Yu Tel. 435-4868

(Please submit, complete, or correct the items encircled below.)

The clearance of plans and specifications does not permit the violation of any section of the Sanitary Sewer and Industrial Waste Ordinance, Plumbing Code, or other County Ordinance or State Law.

1. Complete and sign the County Sanitation Districts' Permit Application form, attached, for the additional sewer connection serving the cylinder filling dock.
2. Complete and sign the County Engineer Industrial Waste Permit Application form.
3. Complete and sign the City of _____ Industrial Waste Permit Application form.
4. Submit application fee of $ 15.00, payable to ~~Harvey T. Brandt~~, the County Engineer, for the above additional connection.
5. Furnish chemical analyses and other data required on the attached County Sanitation Districts' Critical Parameter Report Form.
6. Six copies of all corrected drawings and other data must be provided.
7. Place the name and address of the company having the wastewater discharge at the lower right-hand corner of the plans.
8. A plot plan drawn to scale showing adjacent streets and north arrow is required.
9. A site drainage plan is required.
   See item no. 27
10. Unroofed areas drained to the public sewer must be either roofed or provided with a rainwater diversion system.
11. Six copies of the industrial wastewater sewerage plan must be provided. Plans must show all sewers and associated facilities for the handling of industrial wastewater from point of origin to the connection with the public sewer.
12. Sanitary wastes from rest rooms, lavatories, drinking fountains, etc., must be separate from industrial process wastewater until all industrial wastewater pretreatment or flow measuring steps are completed.
13. All equipment or facilities generating wastewater flow must be identified on plans.

DICE 02081

14. Scaled drawings for all existing wastewater pretreatment facilities are required. See item 22, below.

15. A gravity separation interceptor of _____ gallon capacity with sampling box on downstream end must be provided.

16. An automatic full-time total flow measurement system with flow indication, totalization, and recording must be provided and shown on the drawings.

17. An automatic effluent pH control and recording system for ~~acid~~ high ph wastes must be provided. See item 28, below.

18. Provide a schematic mass balance flow diagram of the plant wastewater sources from water supply to wastewater discharge. Show water and wastewater flow rates, evaporation losses, losses to product, etc.

19. A description of liquid waste materials leaving the plant other than in the industrial wastewater discharged to the sewerage system must be provided, indicating types of materials and daily quantities.

20. One-pass cooling water is not permitted in the public sewer.

21. Show _____ facilities and associated piping.

22. ~~Other~~: Show existing interceptor located on south side of cylinder filling dock & provide dimensioned details.

23. Static water level on interceptor detail is shown incorrectly.

24. Show existing sludge pits & holding tanks, indicating source of waste, constituents (contaminants) & method of treatment & final disposal. Also, show how waste material is prevented from entering adjacent property during rainy weather.

25. One pass uncontaminated water is not allowed to discharge to the public sewer. Show how ~~xxx~~ uncontaminated one pass water is to be eliminated.

26. Show existing sump located at north end of the caustic tower and submit dimensioned detail drawings. Also, explain the function of the sump and final disposal of contents.

27. On 1/28/76, evidence was found that contaminated waste may have entered the area drain, located west of the Acetylene plant, from the caustic tower area. To prevent accidental discharge, caustic tower area must be provided with spill containment facilities.

28. A ph control & recording system for neutralizing excessively high

29. Recent inspection of the facilities disclosed an excessive amount of oil and sludge in the interceptor north of the Compressor room area. Additional pretreatment facilies must be provided to prevent unacceptable materials from entering the public sewer.

may be required to skim oil ahead of interceptor, at after cooler. Looks like pure oil dripping to interceptor

Please submit within 30 days from receipt of this instruction sheet.

30. Show all fuel lines from compressor room

Address all correspondence to:
HARVEY T. ERANDT,
County Engineer
~~108 W. Second St.~~
Los Angeles, CA 90012
~~Attn. Mr. C. G. Brisley, Jr.~~

15

COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL MANAGEMENT -- HAZARDOUS MATERIALS CONTROL PROGRAM

REPORT OF INVESTIGATION SUMMARY

DATE _____ DATE OF INVESTIGATION 5-12-89

INVESTIGATING OFFICER(S) Chris Johnson HMS2, Miguel Garcia HMS2, Anthony Payne HMS I

PHONE (213) 744-3223

NAME OF SUSPECT(S) / DEFENDANT(S) / AKA(S) LIQUID AIR CORPORATION

ADDRESS 8832 Dice Road, Santa Fe Springs, CA 90670

BUSINESS STRUCTURE AND DESCRIPTION Corporation

SERVICE OR PRODUCT PRODUCED Compressed Gases

SEC. STATE HEALTH LAW Health and Safety Code, Sections 25189.6, 25191 (d).

LOCATION OF VIOLATION(S) 8832 Dice Road, Santa Fe Springs, CA 90670

BRIEF STATEMENT OF VIOLATION(S) Defendants did knowingly store hazardous waste at their facility without a permit from the Department of Health Services and with reckless disregard for the risk of storing wastes without consideration of chemical compatibilities.

TYPE OF WASTE DISCHARGED _____

DEFENDANT(S) PREVIOUS RECORD _____

REVIEWED BY _____

DATE _____

HMP (4/87)

DICE 02084

SIC. 2813

HAZARDOUS WASTE CONTROL PROGRAM

DATE: [illegible]

COMPANY NAME	STREET	CITY & ZIP	DISTRICT
LIQUID AIR CORPORATION	8832 DICE ROAD.	SANTA FE SPRINGS, 90670	SOUTHEAST
OWNER CORPORATION	PERSON INTERVIEWED & TITLE	PHONE NO. (213) 945-1383	NO. EMPLOYEES
T. I BARBER PLANT Mgr	T.I. BARBER PLANT MGR	EMERGENCY NO.	70

L.A. CO. PHL NO.	INDUSTRIAL WASTE NO.	EPA NO.
520165	—	CAL000021160

SAFETY SHOWER OK

EATING AREA

TOILET & WASHING FACILITIES ADEQUATE

PLANT SANITATION ADEQUATE

TYPE OF FACILITY & DESCRIPTION OF OPERATION/PRODUCTS:

PRESSURIZED GAS

HAZARDOUS WASTE

PROCESS	MATERIAL	TYPE	VOL/LBS	STORAGE METHOD	DISPOSAL METHOD	MANIFEST	CONTROL	I.H. HAZAR
GAS BOTTLING	O_2, N_2, ARGON, NO, CO_2, METHANE, PROPANE	COMPRESSOR OIL	100 GAL	→ 55 GAL DRUMS	I.T. CORP, DEKKWD/HEDDACH 2000 N. ALAMEDA ST Compton, CA. 90222	88002553	12/1/88	
ACETYLENE GENERATION $CaC_2 + 2H_2O \rightarrow C_2H_2 + Ca(OH)_2$		CALCIUM HYDROXIDE		→ DEPOSITED IN VERY LARGE QUARRY LIKE FORMATION AT REAR OF SITE. FILLED WITH WATER.	HALF OF WHICH IS			
		COOLING WATER		→ STORAGE POND ON SITE	→ EVAPORATION			
PIPE CLEANING		ACETIC ACID		→	SEWER			
TANK REPAIR	SHOT BLASTER	PAINT DUST		→ BAG HOUSE	→ TRASH			
	PAINTING	SOLVENT		→ ISSA DRUM	→ STORED ON SITE	NOV		
					PIPE!			

NUMBER OF UNDERGROUND STORAGE TANKS: 1

VOLUME & TYPE OF WASTE IN UNDERGROUND TANK(S): ACETONE 1000 GAL NOT IN USE YET

PRIVATE DISPOSAL SYSTEMS ON PREMISES: YES ___ NO X

ACCESS TO STORM INLET ON PREMISES: Yes X No ___

CHLORINATED HYDROCARBON USED: YES X NO ___

SEWER CONNECTION ON PREMISES: YES ___ NO X

REMARKS: CONTINUALLY PLAN

4 REMOVED [illegible] OIL 1 TR AGO 1 ACETONE [illegible] OIL

VIOLATIONS: NOV ISSUED: 1) DISPOSE OF ALL HAZARDOUS WASTE ON SITE
2) MANIFEST
3) STORAGE
4) LABELING
5) COMPATIBILITY OF CHEMICALS

REFERRAL TO:

ACTION:

SURVEY CONDUCTED BY: C. JOHNSON, M. GARCIA, A. RAYNE

DICE 02085

3/28/88 15 DRUMS

CONT READ LABELS!

111 T.E

[illegible]

666-BMED STORAGE CYLINDER ENAMEL FLAMMABLE } 100 DRUMS WASTE ? STORAGE CORROSIVES MIXED W PAINT!

[illegible] O_2 N_2 ARGON NO CO_2 } [illegible] → PUT IN CYLINDER

PROPANE

TANK REPAIR METHANE

PAINT

LIQUID CAUSTIC [illegible]

STORM DRAIN

CYLINDER [illegible] BLAST

SHOT BLASTER → BAGHOUSE

CALCIUM CARBIDE W

GENERATOR HOPPER

[illegible] + CACABIDE H_2O → ACETYLENE + LIME

↓

DRYERS

↓ COOLED W/WATER

COMPRESSOR

↓

FILLED BY NT. CYLINDERS

ACETONE

COOLED W/WATER

ACETIC ACID – PIPE CLEANING

COOLANT WATER

PHOSPHINE SILANE ARGON } STORAGE

CYANOGEN CHLORIDE

DICE 02086

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS CONTROL PROGRAM
2615 South Grand Avenue Room 607
Los Angeles, California 90007
Phone (213) 744-3223

ADMINISTRATIVE HEARING

5-7-89
Date

Chris Johnson
Health Officer

Representative THOMAS IRVIN BARBER Driver's License # U6071119
Title Plant Manager Sex: Female () Male (X)
Company Name (DBA) Liquid Air Corp Color of Hair BRN
Business Address ~~217 [illegible] California~~ Color of Eyes BRN
Home Address 1260 Winslow Street, Upland Height 6'5 Weight 260
Home Telephone Number ( ) Birthdate 6-26-39
Bus Address 8832 Dice Rd. Santa Fe Springs

This Administrative Office Hearing was scheduled as a courtesy to you to discuss the reason compliance has not been fully obtained with the Official Notice of Violation(s), dated 5-12-89 which specified violations of CAC TITLE 26 / CALIF. H&S CODE SEC. Storage of Hazardous Waste and also to allow you to present your plans for correcting the existing violation(s).

At the hearing, the necessary corrections and a mutual date for compliance were discussed. It was also fully explained that non-compliance with any cited section of the California Administrative Code, Title 26 and/or California Health and Safety Code constitutes a criminal violation which is subject to prosecution by the District or City Attorney.

Therefore, full compliance has been mutually agreed upon by 7-31-89 (date). You are also requested to submit copies the following documents.

		DATE
(X)	1989 Hazardous Waste Manifest(s)	7-31-89
()	A Site Mitigation Plan	
()	Los Angeles County Public Health License	
()	_____ Documents/permits (agencies)	
(X)	Varances issued by SDOHS and/or EPA	7-31-89
(X)	EPA number document	7-31-89
(X)	Others documents All items are N.O.K Dated 4-20-88 and 5-12-89	

Acknowledge as to the above [signature]
(Signature)

Hearing Conducted By: Miguel Garcia

Southern California District Office

17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.

a subsidiary of environmental system company

March 2, 1989

Mr. Thomas I. Barber
Plant Manager
Liquid Air Corporation
Industrial Gases Division
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Barber:

I would like to take this opportunity to thank you for giving Ensco Environmental Services the opportunity to manage the disposal of your hazardous waste material. As we discussed, it is necessary for us to sample and analyze the contents of the drummed material due to the fact that IT is unable to provide inventory data sheets. We intend to utilize the HAZCAT methodology to find the category of the materials and then analyze a bulk composite of the categories. Upon receipt of analytical data, we will be able to propose the appropriate disposal facility and provide accurate cost data. The cost for performing these services is detailed below.

Identification and profiling of wastes. $ 6,315.00

A. Includes disposal options
B. Hazard categorization
C. Determination of packaging
D. Profiling of bulk and lab packs
E. Segregation for disposal
F. Inventory of lab packs

Please note that the costs above include all labor and their personal protective equipment. It is expected that this portion of the work will take no longer than four days on site. Approximately ten working days are necessary to obtain the analytical results, however, this can be expedited to a 24 hour turnaround at three times the normal cost. Once the analytical is complete, a report will be submitted for your review describing the current contents and their appropriate disposal options and costs.

Please feel free to give me a call at (714) 756-8666, if you have any questions or wish to further discuss this matter. I look forward to working with you.

Sincerely,

Wayne Nastri
District Sales Manager

Southern California
District Office

17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.
a subsidiary of environmental system company

March 22, 1989

Mr. Thomas I. Barber
Plant Manager
Liquid Air Corporation
Industrial Gases Division
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Barber:

I would like to take this opportunity to thank you for giving Ensco Environmental Services the opportunity to manage the disposal of your hazardous waste material. As we discussed, it is necessary to sample and analyze the contents of the drummed material due to the fact that IT Corp. is unable to provide detailed inventory data sheets. However, given the available limited information (see attached), we can provide a rough estimate of the costs for transportation and disposal (incineration). Briefly, the cost for transportation and disposal to our incinerator facility in El Dorado, AR is estimated at $29, 520.00. Actual costs would be determined once the initial inventory and profile is complete.

Please feel free to give me a call at (714) 756-8666, if you have any questions or wish to further discuss this matter. I look forward to working with you.

Sincerely,

Wayne Nastri
District Sales Manager

KG

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012

FEB 7 - 1977

RECEIVED
FEB 8 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

COUNTY ENGINEER
FILE TO
REPT
SJK JTR THA
CJF CWJ RTR

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

I-225-1H

ATTENTION: Mr. Bill Aldrich, Plant Manager

RE: Waste Discharge Requirements (NPDES Permit No. CA0058335)

ADOPTED

Gentlemen:

Reference is made to our letter dated December 17, 1976, which transmitted a draft of tentative requirements for your disposal of cooling water and process wastes.

Pursuant to Division 7 of the Water Code of the State of California, this California Regional Water Quality Control Board, at a public hearing held on January 24, 1977, reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 77-3 (copy attached) relative to this waste discharge. This Order serves as a permit under the National Pollutant Discharge Elimination System, and expires January 10, 1982. Please note that you must file an application for a new permit at least 180 days in advance of that date.

Your attention is directed to the provision in the Monitoring and Reporting Program (copy attached) which requires you to submit a technical report to this Board no later than 30 days after receipt of this permit relative to the operation and maintenance of the waste disposal facility. You are also required to implement the monitoring program as stated in the Monitoring and Reporting Program within 60 days of the effective date of this Order. Your first monitoring report is due by January 15, 1978, for spray cooling water, and/or by the first Report Due date subsequent to commencement of discharge for acetylene production process wastes. Please reference all technical and monitoring reports to our Compliance File No. 6301.

Very truly yours,

Original signed by
Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: Environmental Protection Agency, Region IX,
Regional Administrator, ATTN: Permits Branch
United States Army Corps of Engineers
State Water Resources Control Board, Legal Div., H. Schueller
Department of Fish and Game, Region 5
Department of Health, Water Sanitation Section
Departmentof Water Resources
Los Angeles County Flood Control District
County of Los Angeles, Department of Health Services
NOAA, National Marine Fisheries Service
Los Angeles County Engineer, Project Planning and
Pollution Control Division
City of Santa Fe Springs

DICE 02091

Look up in blue cards and get old file

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 77-3

NPDES NO. CA0058335

WASTE DISCHARGE REQUIREMENTS
FOR
LIQUID AIR INC.

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Liquid Air Inc., has filed a report of waste discharge and has applied for a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. Liquid Air Inc., operates an air separation and acetylene manufacturing facility at 8832 Dice Road, Santa Fe Springs, California, and discharges up to 170 cubic meters (45,000 gallons) per day of cooling water containing no additives through an unlined ditch adjacent to the premises to North Fork Coyote Creek which is tributary to San Gabriel River, a water of the United States, at Stearn Street, above the tidal prism. The cooling water is sprayed on the acetylene-filled cylinders while they are loaded on trucks.

   Liquid Air Inc., also proposes to discharge up to 18.9 cubic meters (5,000 gallons) per day of acetylene production process wastes to the same unlined ditch.

3. The following data for the process wastes as provided by the discharger, show concentrations of certain constituents exceeding the maximum allowable concentrations contained herein below:

Constituent	Concentration	
pH	12.2	pH units
Total dissolved solids	3,320	mg/l

4. Currently, the process wastes are hauled to a legal disposal site. Because of increasing hauling costs, the discharger proposes to treat and discharge the wastes to the ditch, if he can meet the Board's requirements. If not, the wastes will continue to be hauled.

5. The Board adopted a Water Quality Control Plan for Los Angeles River Basin on March 10, 1975. The Water Quality Control Plan contains water quality objectives for San Gabriel River and tributaries, including Coyote Creek. The requirements contained in this Order are necessary to assist in meeting these objectives.

12/16/76

DICE 02092

6. The beneficial uses of the receiving waters are: non-water contact recreation, limited warm freshwater and wildlife habitat, and (within the tidal prism) water contact recreation, industrial service supply, ocean commercial and sport fishing, preservation of rare and endangered species, marine habitat, and saline water habitat.

7. Effluent limitation standards established pursuant to Section 301 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

DICE 02093

ENSOTECH INC.
1525 SEPULVEDA BOULEVARD
LOS ANGELES, CALIFORNIA 90025
Phone: (213) 479-6630

ANALYTICAL REPORT

Date Sampled 3/11/76 Date Analyzed 3/29/76

Date Submitted 3/19/76 Lab. No. 713 Ref. No. E-12

CLIENT: ESD-E12 (LA)

SAMPLE: WASTEWATER (Grab Sample)

INVESTIGATION: Chemical Analysis

RESULTS

A	Flow (Total)		60	gals/day	V	Manganese - Total			mg/l
B	Flow (Peak)		2	gals/min.	W	Mercury - Total		0.007	mg/l
C	COD		91	mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		84	mg/l	Y	Nickel - Total			mg/l
E	pH		7.7	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total		11	mg/l
H	Sulfide—Dissolved		ND<0.1	mg/l	CC	Thallium - Total			mg/l
I	Cyanide		0.03	mg/l	DD	Tin - Total			mg/l
J	Fluoride		0.16	mg/l	EE	Titanium - Total		0.3	mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		0.4	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (HEXANE EXTRACT)		76	mg/l
M	Arsenic - Total		0.004	mg/l	HH	Phenols		0.003	mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (EXCEPT PESTICIDES)			mg/l
P	Cadmium - Total		0.1	mg/l	KK	Pesticides (CHLOR. HYCARB.)			mg/l
Q	Chromium - Total		0.25	mg/l	LL	Radioactivity (ALPHA, BETA, GAMMA)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		76	Degrees °F
S	Copper - Total		0.1	mg/l	NN	Color			Units
T	Iron - Total		0.6	mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total		ND<0.1	mg/l					

STATE APROVED ANALYTICAL LABORATORY

Field

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

INSPECTOR'S REPORT

TO: ROGER HIGBEE DATE: 2-4-76

FROM: DAVE LOBATO FILE: I-225

INDUSTRY: LIQUID AIR
8832 DICE Rd. S.F.S.

REPORT:

As per your instructions, an inspection was made of the interceptor and it was found to have excissive oil buildup in the last compartment, however no sludge was found.

2-4-76

Roger,

In my opinion, we do not have adequate plumbing plans for the IW. facilities.

The Central Office should request detail plans of all waste lines at this site.

Dave

DICE 02095

REQUEST FOR: I-NUMBER [ ] DATA CHANGE [X]

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. 225

Name AMERICAN CRYOGENICS

Address 8832 S. DICE Rd. Zip Code

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name LIQUID AIR

Address Zip Code

Region-City Status Permit No.

Classif. SMD Disp. Code

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets &

W.S. No.

Thos. guide

This is the same company w/ Just a Name Change!

DICE 02096

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)	A	14,000	gals/day	V	Manganese - Total			mg/l
B	Flow (Peak)	A	19.5	gals/min.	W	Mercury - Total	A	0.007	mg/l
C	COD	A	1121.0	mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)	D	395.0	mg/l	Y	Nickel - Total			mg/l
E	pH	E	11.8	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total	A	6700.0	mg/l
H	Sulfide	A	<0.1	mg/l	CC	Thallium - Total			mg/l
I	Cyanide	A	0.11	mg/l	DD	Tin - Total			mg/l
J	Fluoride	A	0.68	mg/l	EE	Titanium - Total	A	<0.1	mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total	A	1.41	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)	A	1708.0	mg/l
M	Arsenic - Total	A	<0.01	mg/l	HH	Phenols	A	0.001	mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)			mg/l
P	Cadmium - Total	A	0.02	mg/l					
Q	Chromium - Total	A	2.46	mg/l	KK	Pesticides (Chlor. Hycarb.)			mg/l
R	Cobalt - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
S	Copper - Total	A	0.19	mg/l	MM	Temperature	A	95°	Degrees °F
T	Iron - Total	A	0.22	mg/l	NN	Color			Units
U	Lead - Total	A	0.21	mg/l	OO	Thiosulfate (S)			mg/l

NON-CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)	
PP	Calcium			mg/l	A1	Composite: 24 hrs Sept.5-6,1975
QQ	Magnesium			mg/l	A2	Final Stage
RR	Potassium			mg/l	A3	Nottingham Separator
SS	Barium Anachem Lab No.-28-07			mg/l	A4	Includes Batch Dump of Caustic
TT	Nitrate			mg/l	A5	
UU	Chloride			mg/l	A6	
VV	Bromide			mg/l	A7	
WW	Sulfate			mg/l	A8	
XX	Phosphorus-Ortho			mg/l	A9	

NOTES: 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but *known to be absent* from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined, using representative 24-hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

THE ANACHEM LABORATORIES -1724 West 58th St, Los Angeles, CA90062
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

LIQUID AIR INC. 2813
(Print) Name of Company Having Wastewater Discharge — SIC Number(s)

8832 Dice Road, Santa Fe- Springs, CA 90670
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only *one* discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date: _____ Location: _____, California _____

(Signed) Name Position (Administrative Officer of Company with Wastewater Discharge)

DICE 02097

LIQUID AIR, INC.

REPORT ON INDUSTRIAL WASTEWATER DISCHARGE
PERMIT APPLICATION

The following comments are based on the instructions listed on the Plan Check Instruction Sheet from the Department of County Engineers.

1. Based on the sample results collected by our company on 24 February 1976, evidence shows that the pH of effluent was 8.4, such that an automatic full-time pH control and recording systems for high pH will not be required. If high pH were found in the future samples taken, the subject company will provide a pH control and recording system.

2. The source of waste to the existing sludge holding tank is from the by-products of Calcium Carbide at the Acetylene Plant. This is collected in a sludge collecting sump shown on ESD drawing LA-01, sheet 2 of 3, and the waste is pumped from the collecting sump to an existing sludge holding tank. After the holding tank is full, the waste will be hauled away by trucks.

3. The sludge pits were built like a basin with elevation of +6 feet around and elevation of -10 feet at the center area as shown in ESD drawing LA-01, sheet 1 of 3, such that the rainwater run-off cannot enter the adjacent property from the pits during rainy weather.

4. The contaminated waste created by rainwater run-off to the area drain located west of the Acetylene Plant can be prevented by building a 12" x 4" berm around the indicated area which shows on ESD drawing LA-01, Sheet 2 of 3.

5. The caustic waste discharged to interceptor "B" from caustic tower is generated in 60 hours and approximately 300 gallons per cycle when fresh caustic is fed into the caustic holding tank to mix up new caustic solution.

6. The elimination of excessive oil and grease to the sewer can be done by either of the following alternatives:

   a. Increase the capacity of the existing interceptor "B" from 800 gallons to 1,200 gallons. The detention time of wastewater can be

increased from 15 minutes to 30 minutes. The interceptor requires clean-up once a month in order to cut down the concentration of oil and grease in the wastewater.

b. The major source of oil is coming from the compressors in the compressor room through two 2" and one 3" pipe. After they reach a catch basin at the end of a big trench shown on ESD drawing LA-01, Sheet 3 of 3, the oil will drain through a 4" pipe to the existing interceptor "B". If the subject company reroutes the 2" and 3" pipe to a portable container and hauls it away by truck instead of discharging to the interceptor "B", an excessive amount of oil to the sewer can be stopped.

One Embarcadero Center, 12th Floor · San Francisco, California 94111 · (415) 433-6210
Telex W.U. 340421

October 1, 1975

Sanitation District Industrial Water Waste Section
P.O. Box 4998
Wittier, CA 90607

Attn: Mr. Luke

Dear Mr. Luke:

Attached is the permit form for industrial wastewater discharge duly completed with necessary documents. We hope this will satisfy your requirements for processing this.

We have also attached a grab sample report for oil and grease content and PH in addition to the critical parameter report form. The purpose of this is when the sample was taken for critical parameter form, the oil and grease content was quite high. On checking back we found that the sediment was not pumped for over a month. So we went and took this sample, subsequently, after pumping. We hope this sample will be accepted as our normal oil and grease content.

I will send a detailed plan of the interceptor as soon as it is ready. The unit is similar to the enclosed drawing from Nottingham Company.

Yours truly,

V.V. Rajan

V.V. Rajan
Project Engineer

LABORATORY REPORT

THE ANACHEM LABORATORIES

CHEMICAL, PHYSICAL AND METALLURGICAL LABORATORIES

1724 WEST 58TH STREET
LOS ANGELES, CALIFORNIA 90062

TELEPHONE (213) 294-1262

LIQUID AIR INC.
8832 Dice Road
Santa Fe Springs,Calif.90670.

Attn: M.R. Aldrich.

DATE September 26,1975
LAB. NO. 28-09
YOUR P.O. NO.
SAMPLE: wastewater
REC'D: 9-22-75

WASTEWATER: Grab Sample
Sampled: 9-22-75

CHEMICAL ANALYSIS PER APHA PROCEDURES; 13th Edition

pH	11.8	units
Oil & Grease	69	mg/l

COPY:

Liquid Air,Inc.
Mr. V.V. Rajan
I Embarcadero Center
San Francisco,Calif.94111.-

I hereby certify that this report is correct to the best of my knowledge and belief.

Respectfully submitted,
THE ANACHEM LABORATORIES

N 93 Chapla

C-1

APPENDIX TO PERMIT

APPLICATION FORM

1. Source of water: city water supply through 3 water meters at the site: Average total volume of water used per month: 1.8 million gallons

2. Discharge of sewer water is discontinuous: cooling tower water is discharged for PH control once a day for 12 hours. Discharge rate: 18 gpm.
Caustic tower discharge: once in 40 hours, for 6 hours.
Flow rate: 10 gpm.
After cooler trap discharge is continuous 4 gpm.

Total average discharge per day - 22,000 gpd. (Apparently the average flow in the critical parameter form is in error as the peak flow of 32.5 has been used to arrive at the total flow assuming continuous discharge..

3. Description of Company's raw material and products:

Raw Material:	Air	524,000 SCFH
	Water	6,000 gallons/day
	Carbide	3 tons/day
Products:	Oxygen	40 tons/day
	Nitrogen	40 tons/day
	Argon	1.7 tons/day
	Hydrogen	7,400 SCF/day
	Acetylene	26,300 SCF/day

4. Description of liquid waste material trucked from plant:

Hydrated lime: Waste product from acetylene plant; quantity - 27 tons/day; trucked out about once a month.

Sanitary waste separate from industrial waste? Yes, except for the clean water discharges from hydrostatic tests of cylinders.

WASTEWATER DISCHARGE PERMIT DOCUMENTATION

a) Scale plot plan showing location and rainwater disposal.

Drawing No. LA-01 Sheet 1 of 2.

b) Floor plan and wastewater flow data.

Drawing No. LA-01 Sheet 2 of 2

Total Flow: 14,000 gpd Peak Flow Rate: 19.5 gpm

c) Source(s) of all water and average monthly usage.
San Gabriel Water Company 2.36 Million gals per month

d) Hours of Discharge 8:00 AM to 8:00 AM (24-hours)

e) Location and sizes of all sewers and connection(s) to public sewer.

Drawing No. LA-01 Sheet 2 of 2.

f) Company - Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, CA

g) Pretreatment facilities.

Drawing No. LA-01 Sheet 2 of 2.

Notes:

h) Existing or proposed flow monitoring system.

i) pH measurement and control system.
Existing pH monitoring system

j) Daily quantities of raw materials and/or products produced.

Daily consumption of Calicum Carbide: 692lbs

k) Other liquid wastes (if any).

l) Sanitary waste disposal.

Drawing No. LA-01 Sheet 2 of 2

Checked: Paul
Eng. Dept.

WASTEWATER DISCHARGE PERMIT DOCUMENTATION

a) Scale plot plan showing location and rainwater disposal.

Drawing No. LA-01 Sheet 1 of 3.

b) Floor plan and wastewater flow data.

Drawing No. LA-01 Sheet 2 of 3

Total Flow: 60 gpd Peak Flow Rate: 2 gpm

c) Source(s) of all water and average monthly usage.

d) Hours of Discharge 0800 to 2000

e) Location and sizes of all sewers and connection(s) to public sewer.

Drawing No. LA-01 Sheet 2 of 3.

f) Company - Liquid Air, Inc.
8832 Dice Road
Santa Fe Springs, CA 90670

g) Pretreatment facilities.

Drawing No. LA-01 Sheet 3 of 3.

Notes:

h) Existing or proposed flow monitoring system.

None

i) pH measurement and control system.

None

j) Daily quantities of raw materials and/or products produced.

City water, approx. 60 gpd

k) Other liquid wastes (if any).

Sanitary wastes, see drawing LA-01 sheet 2 of 3

l) Sanitary waste disposal.

Drawing No. LA-01 Sheet 2 of 3

Checked: Paul Jr
Eng. Dept.

Roger H

LIQUID AIR INC.

8832 Dice Road · Santa Fe Springs, California 90670 · (213) 685-4960

May 17, 1973

RECEIVED
MAY 18 1973
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

Roger L. Higbee
Industrial Waste Engineering Inspector
9150 E. Imperial Hwy.
Downey, Ca. 90242

Dear Mr. Higbee:

Per your request the following details are submitted concerning the 12"-4" drains into drainage ditch at this facility.

Twelve Inch

1. Yard drainage. Rain runoff
2. We have acetylene bulk trailers that require cooling water when they are being filled (approximately ~~three~~ 4 times per month). This filling process takes eight hours, using 1-1.5 G.P.M.
3. There is also a small continuous bleed on our water seal for hydrogen cells. I would estimate in the range of 10 gallons per day.

Four Inch

1. System side stream filter. Basically a sand and gravel unit. At this date we are at a seven day back flush cycle. All indications are that we will be able to go to as much as 20 days between backflushes.

This unit sets on top of a holding basin to collect sediment. When on backflush it is timed at 6 minutes for each compartment for a total of 24 minutes at 100 G.P.M.

I trust this information is what you have requested.

Very truly yours,

LIQUID AIR INC.

Ray L. Wilson

Ray L. Wilson
Plant Manager

RLW:dr

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

OSCO

LAF J 36424

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Liquid Air Corp
2. Generator USEPA ID: CAL000021160
3. Facility Address: 8832 Dice Rd, Santa Fe Springs CA 90670
4. Generator State ID: _____
5. Zip Code: _____
6. Technical Contact: Tom Barber
7. Title: Plant Manager
8. Phone: (213) 945-1385

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: Emsco Enviormental Services
3. Phone: (714) 756-8666
4. Address: 17062 Murphy Ave, Irvine CA Job 5515
5. Zip Code: 92714

C. 1. NAME OF WASTE: Solvents contaminated with Water

2. PROCESS GENERATING WASTE: Industrial Gas Manufacture

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, DO NOT COMPLETE this form. Contact your Chemical Waste Management, Inc. sales representative for assistance

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
Yellow/clear	☒ No ☐ Yes If known, describe: Solvent	☐ Solid ☐ Semi-Solid ☒ Liquid ☐ Powder Other: _____	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: .9 - 1.0	☒ Yes ☐ No Volume: 100

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☒ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ N/

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☒ 140-199°F ☐ ≥ 200°F ☐ None ☒ Closed Cup ☐ Open Cu

E. CHEMICAL COMPOSITION

1.	RANGE MIN. - MAX.	
Toulene Benzene Ethyl Benzene	TR - 5	%
Xylene Spent	-	%
Water	95 - 99	%
Oil & Grease	1 - 2	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	_____ ppm
Cyanides	☒	☐ < 50 ppm	_____ ppm
Phenolics	☒	☐ < 50 ppm	_____ ppm
Sulfides	☒	☐ < 50 ppm	_____ ppm

F. METALS Indicate if this waste contains any c the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☒ < 5	☐ < 500	_____
Barium	☒ < 100		_____
Cadmium	☒ < 1	☐ < 100	_____
Chromium	☒ < 5		_____
Lead	☒ < 5	☐ < 500	_____
Mercury	☒ < 0.2	☐ < 20	_____
Selenium	☒ < 1	☐ < 100	_____
Silver	☒ < 5		_____
Chromium-Hex	☒ < 5	☐ < 500	_____
Copper	☒ < 5		_____
Nickel	☒ < 5	☐ < 134	_____
Thallium	☒ < 5	☐ < 130	_____
Zinc	☒ < 5		_____
_____	☐ <		_____
_____	☐ <		_____
_____	☐ <		_____

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

LAX J 36424
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☒ Yes ☐ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:

☐ RCRA Reactive ☐ Radioactive
☐ Water Reactive ☐ Etiological
☐ Explosive ☐ Pesticide Manufacturing Waste
☐ Shock Sensitive ☐ Other _____
☐ Pyrophoric ☒ None of the above

Spent NA brush
69 2510 1E39

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

		LESS THAN	or	ACTUAL
Beryllium	☒ <	5000 ppm		____ ppm
Potassium	☒ <	5000 ppm		____ ppm
Sodium	☒ <	5000 ppm		____ ppm
Total Bromine	☒ <	2 %		____ %
Total Chlorine	☒ <	35 %		____ %
Total Fluorine	☒ <	1 %		____ %
Total Sulfur				____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

1. Heat Value (BTU/lb): _____ Range 2. Water: 95 %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°
4. Ash: _____ % 5. Settleable solids: <1 %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☒ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☒ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☒ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 500 / gal
3. Proper Shipping Name: Waste Combustible liquid NOS
4. Hazard Class: Combustible Liquid 5. I.D. #: NA 1993
6. Additional Description: Spent Non Halogenated Solvents contaminated with water
7. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Solid ☒ Drum (Type/Size): DE / 55 Other: _____
8. CERCLA Reportable Quantity (RQ): F002 9. RQ Units (lb/kg): lbs
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): ~~F005~~ F003
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): 212/213

K. SPECIAL HANDLING INFORMATION See Attached Analytical

☒ Additional Page(s) Attache

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true an accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession c the generator has been disclosed.

1. T. D. Barker Signature 2. Plant Mgr Title
3. T. F. BARKER Name (Type or Print) 4. 6-29-89 Date

Side 2 of 2
Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAK J 36424

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification o Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Shee referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Shee referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code:		1. Waste Profile Sheet Code:
2. [redacted] Generator's Name:	Liquid Air Corp.	2. Generator's Name:
3. [redacted] Name of Waste:	Spent Non Halogenated Solvents contaminated with KP	3. Name of Waste:
4. [redacted] Sample Hour/Date:	5/30/95	4. Sample Hour/Date:
5. [redacted] Sampler's Signature:	W. Paulot	5. Sampler's Signature:

6. Print Sampler's Name: W. Paulot
7. Sampler's Title: Chemical Services Mgr. EPSCO ENVIRONMENTAL
8. Sampler's Employer (if CWM, see D. below): _____

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

DICE 02108

Del Mar Ar cal
18102 Sky Park South, Suite F
(714) 261-1022 · FAX (714) 261-... A 92714

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/10/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Analysis: BTEX Analysis: Waste Samples

Sample Description	Sample Number	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm
#17	9050976	1.2	9.4	2.8	17
#18	9050977	0.94	1.6	0.44	0.73
#30	9050989	N.D.	N.D.	N.D.	N.D.
#41	90501000	N.D.	N.D.	N.D.	N.D.
#42	90501001	N.D.	N.D.	N.D.	N.D.
Detection Limit		0.05	0.05	0.05	0.05

N.D. - None Detected above stated Detection Limit

This analysis was performed using EPA methods 5030 and 8020 for BTX detection.

Del Mar Analytical

Gary Steube
Laboratory Director

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36412

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Liquid Air Corporation
2. Generator USEPA ID: CAL000021160
3. Facility Address: 8832 Dice Rd, Santa Fe Springs, CA 90670
4. Generator State ID: SYCHB30641202
5. Zip Code: 90670
6. Technical Contact: Tom Barber
7. Title: Plant Manager
8. Phone: (213) 945-1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO Environmental Services Inc
3. Phone: (714) 756-8666
4. Address: 17062 Murphy Avenue, Irvine CA 92714
5. Zip Code: 92714

C. 1. NAME OF WASTE: Aliphatic Hydrocarbons

2. PROCESS GENERATING WASTE: Industrial Gas Manufactor

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☑ No If yes, DO NOT COMPLETE this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
yellow/brown	☑ No ☐ Yes If known, describe:	☐ Solid ☐ Semi-Solid ☑ Liquid ☐ Powder Other:	☑ Multilayered ☐ Bi-layered ☐ Single Phased	Range: >1	☑ Yes ☐ No Volume: %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☑ 4-7 ☐ 7 ☐ 7-10 ☐ 10- <12.5 ☐ ≥ 12.5 ☐ Range - ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☑ ≥ 200°F ☐ None ☐ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.	RANGE MIN.	MAX.	
Aliphatic Hydrocarbons	80	100	%
			%
			%
Hydrocarbons	20	100	%
			%
Acetone	0	2	%
Xylene	0	1	%
Petrol Thinner	0	5	%
			%
1,1,1-Trichloroethane			%
			%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☐	☐ < 50 ppm	____ ppm
Cyanides	☐	☐ < 50 ppm	____ ppm
Phenolics	☐	☐ < 50 ppm	____ ppm
Sulfides	☐	☐ < 50 ppm	____ ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☐ < 5	☐ < 500	
Barium	☐ < 100		
Cadmium	☐ < 1	☐ < 100	
Chromium	☐ < 5		
Lead	☐ < 5	☐ < 500	
Mercury	☐ < 0.2	☐ < 20	
Selenium	☐ < 1	☐ < 100	
Silver	☐ < 5		
Chromium-Hex	☐ < 5	☐ < 500	
Copper	☐ < 5		
Nickel	☐ < 5	☐ < 134	
Thallium	☐ < 5	☐ < 130	
Zinc	☐ < 5		
	☐ <		
	☐ <		
	☐ <		

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

DICE 02110

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

[1X] J 36412
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☑ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☑ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☐ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

		LESS THAN	or	ACTUAL
Beryllium	☐	< 5000 ppm		____ ppm
Potassium	☐	< 5000 ppm		____ ppm
Sodium	☐	< 5000 ppm		____ ppm
Total Bromine	☐	< 2 %		____ %
Total Chlorine	☐	< 35 %		____ %
Total Fluorine	☐	< 1 %		____ %
Total Sulfur				____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°F
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☑ Yes ☐ No 2. Anticipated Annual Volume/Units: 10001 GAL
3. Proper Shipping Name: HAZARDOUS WASTE LIQUID N.O.S. 5. I.D. #: NA9189
4. Hazard Class: ORM-E
6. Additional Description: (/) Other: _____
7. Method of Shipment: ☑ Bulk Liquid ☐ Bulk Solid ☐ Drum (Type/Size): _____ / _____
8. CERCLA Reportable Quantity (RQ): _____ 9. RQ Units (lb/kg): _____
10. USEPA Hazardous Waste? ☑ Yes ☐ No 11. USEPA Hazardous Waste Number(s): F003
12. State Hazardous Waste? ☑ Yes ☐ No 13. State Hazardous Waste Number(s): 214

K. SPECIAL HANDLING INFORMATION Wear protective gloves

☐ Additional Page(s) Attach

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true a accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. _____ Signature
2. _____ Title
3. _____ Name (Type or Print)
4. _____ Date

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT OR INK OR TYPE (ERIA 12-pitch)

J36412

LAX J 36412

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: [ ]

This completed form must be returned, with the representative sample, to:

_____

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification of Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

J36412

1. Waste Profile Sheet Code: _____
2. [redacted] Generator's Name: Liquid Air Corporation
3. [redacted] Name of Waste: Aliphatic Hydrocarbon
4. [redacted] Sample Hour/Date: June 29 11am
5. [redacted] Sampler's Signature: Marvin Binds

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: MARVIN BINDS
7. Sampler's Title: Chemist
8. Sampler's Employer (if CWM, see D. below): ENSCO ENVIRONMENTAL SERVICES

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

ensco

WASTE MATERIAL DATA SHEET

No. 83779

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES INC
MAILING ADDRESS: 17062 B MURPHY AVE
IRVINE CA 92714
FACILITY ADDRESS: SAME
EPA I.D. NO. [illegible]

GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
MAILING ADDRESS: 8832 DICE RD.
SANTA FE SPRINGS CA 90670
FACILITY ADDRESS: SAME
EPA I.D. NO. CAL000021160

B WASTE IDENTIFICATION

WASTE NAME: Oil contaminated with metals
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURER SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

Attachments: Analytical

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: CLEAR/YELLOW
ODOR: ☒ NONE ☐ STRONG ☐ MILD
☒ LIQUID 100 % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	.9				
% SOLIDS					

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ATTACHMENTS X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify: ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes: D003

Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION DOT hazardous material X

PROPER SHIPPING NAME: HAZARDOUS WASTE LIQUID NOS
HAZARD CLASS: ORM-E ID # NA9189 R/Q
ANTICIPATED VOLUME: 1000 GAL. YDS. LBS., PER:
☐ ONE TIME ☐ WK ☐ MO ☒ YR. OTHER, in bulk? X by rail?
Specify type and size of container: 17E 55GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 1.4-1.7 ☒ 0.8-1.0 ☐ >1.7 ☐ 1.0-1.2 ☐ 1.2-1.4 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☒ 100-1,000 ☐ 1,000-19,000 ☐ > 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ >20 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 UNK Actual
5 pH: ☐ <2 ☐ >12.5 ☐ 2-6 ☒ 6-8 ☐ 8-10 ☐ 10-12.5 Actual Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 12-16 ☐ 1-4 ☐ >16 ☐ 4-8 ☐ 8-12 UNK Actual
7 FLASH POINT (closed cup): ☐ <100°F ☒ >200°F ☐ 100°-140°F ☐ 140°-200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ >5 ☐ 0.5-2.0 ☐ 2-5 UNK Actual
9 HALOGENS (% WT.): <1 1-10 10-50 >50 ACTUAL
☒ BROMINE ☒ CHLORINE ☒ FLUORINE

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		16	P		UNK
As			Se		ND	Sb		ND
Ba			Cu		ND	Si		UNK
Cd			K		7.6	organic silicon only		
Cr			Na		52	Sn		UNK
Hg			Mn		UNK	Zn		ND

	TOTAL (%WT.)	EP EXTRACT (PPM)
PCB	ND	
CYANIDES		
SULFIDES		
DIOXIN		
OTHERS (SPECIFY)		

ATTACHMENTS

I

Does waste contain SOLVENTS? X If yes, specify Petroleum distillates <1%
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE: [signature] TITLE: PET WGR DATE: 6-30-89

PC ENSCO USE ONLY
DATE RECEIVED

LAB COPY

DICE 02113

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

#40 Poison B

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#40

Sample Number
9050999

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	N.D.
Lead	(7420)	5.0	1000	1.0	81
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	250
Sodium	(7770)	NA	NA	1.0	300
Magnesium	(7450)	NA	NA	1.0	62
Potassium	(7610)	NA	NA	1.0	44

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

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(714) 261-1022 • FAX (714) 261-1228

40

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #40	9050999

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Benzene	1000	N.D.
Toluene	1000	N.D.
Ethylbenzene	1000	N.D.
Chlorobenzene	1000	N.D.
Xylenes (sum of 3 isomers)	1000	N.D.
Acetone	5000	N.D.
2-Butanone	5000	N.D
Carbon Disulfide	2000	N.D.
Vinyl Acetate	2000	N.D.
4-Methyl-2-pentanone	2000	N.D.
2-Hexanone	2000	N.D.
Styrene	2000	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	100 %
Toluene-d8	91 %
4-Bromofluorobenzene	104 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
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Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 40	9050999

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	1000	N.D.
1,1,1-Trichloroethane	1000	N.D.
Trichloroethene	1000	N.D.
1,1-Dichloroethane	1000	N.D.
1,2-Dichloroethane	1000	N.D.
1,1-Dichloroethene	1000	N.D.
trans-1,2 Dichloroethene	1000	N.D.
Methylene Chloride	1000	N.D.
Chloroform	1000	N.D.
Bromodichloromethane	1000	N.D.
Dibromochloromethane	1000	N.D.
Bromoform	1000	N.D.
Bromomethane	1000	N.D.
Chloromethane	1000	N.D.
Chloroethane	1000	N.D.
Vinyl Chloride	1000	N.D.
1,2-Dichloropropane	1000	N.D.
1,3-Dichloropropenes	1000	N.D.
Carbon Tetrachloride	1000	N.D.
Trichlorofluoromethane	5000	N.D.
1,1,2-Trichloroethane	1000	N.D.
1,1,2,2-Tetrachloroethane	1000	N.D.
2-Chloroethylvinyl ether	1000	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 11	9050970

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Benzene	100	N.D.
Toluene	100	N.D.
Ethylbenzene	100	N.D.
Chlorobenzene	100	N.D.
Xylenes (sum of 3 isomers)	100	N.D.
Acetone	500	N.D.
2-Butanone	500	N.D
Carbon Disulfide	200	N.D.
Vinyl Acetate	200	N.D.
4-Methyl-2-pentanone	200	N.D.
2-Hexanone	200	N.D.
Styrene	200	N.D.

N.D. - None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	94 %
Toluene-d8	90 %
4-Bromofluorobenzene	103 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#11

Sample Number
9050970

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	N.D.
Lead	(7420)	5.0	1000	1.0	16
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	48
Sodium	(7770)	NA	NA	1.0	52
Magnesium	(7450)	NA	NA	1.0	10
Potassium	(7610)	NA	NA	1.0	7.6

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/19/89
Date Reported: 06/21/89

Attention: Walt Fouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #11	9050970

PCBs

	Detection Limit mg/Kg	Sample Results mg/Kg
PCB-1016	10	N.D.
PCB-1221	10	N.D.
PCB-1232	10	N.D.
PCB-1242	10	N.D.
PCB-1248	10	N.D.
PCB-1254	10	N.D.
PCB-1260	10	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 8080.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 11	9050970

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
trans-1,2 Dichloroethene	100	N.D.
Methylene Chloride	100	N.D.
Chloroform	100	N.D.
Bromodichloromethane	100	N.D.
Dibromochloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Chloromethane	100	N.D.
Chloroethane	100	N.D.
Vinyl Chloride	100	N.D.
1,2-Dichloropropane	100	N.D.
1,3-Dichloropropenes	100	N.D.
Carbon Tetrachloride	100	N.D.
Trichlorofluoromethane	500	N.D.
1,1,2-Trichloroethane	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

ensco

WASTE MATERIAL DATA SHEET

No. 83797

A CUSTOMER INFORMATION

CUSTOMER NAME: Liquid Air Corp.
MAILING ADDRESS: 8832 Dice Rd
Santa Fe Springs CA
FACILITY ADDRESS: Job # 5515
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Same
MAILING ADDRESS
FACILITY ADDRESS: Same
EPA I.D. NO. CAL000021160

B WASTE IDENTIFICATION

WASTE NAME: Spill Residue /
Is this waste normally generated at FACILITY? ☺
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? Composition? Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

HEALTH	2				
FLAMMABILITY	2				
REACTIVITY	0				

Attachments

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: Black/Brown
ODOR: Non Specific
☐ NONE ☐ STRONG ☒ MILD

☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER

PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.7				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

ATTACHMENTS X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify:

ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D001 D008
D006
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: Hazardous Waste Solid NOS
HAZARD CLASS: ORM-E ID #: NA9189 R/Q: D001
ANTICIPATED VOLUME ____ GAL. 100 YDS. ____ LBS., PER: ☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____, in bulk? X by rail? X
Specify type and size of container: 1-7A Drum 55 gal

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☐ 1.4-1.7
☐ 0.8-1.0 ☒ >1.7
☐ 1.0-1.2 ____ Actual
☐ 1.2-1.4

2 VISCOSITY (centipoise)
☐ 1-100 N/A Actual
☐ 100-1,000
☐ 1,000-19,000
☐ > 10,000

3 ASH (%WT.)
☐ <0.1
☐ 0.1-1.0
☐ 1-5
☐ 5-20 unk Actual
☐ >20

4 TOTAL SUSPENDED SOLIDS (% WT.)
☐ <0.5 ☒ >20
☐ 0.5-2.0 ____ Actual
☐ 2-5
☐ 5-20

5 pH
☐ <2 ☐ >12.5
☐ 2-6 ____ Actual
☒ 6-8
☐ 8-10 ____ Constituent
☐ 10-12.5

6 BTU's 1000/lbs.
☐ <1 ☐ 12-16
☐ 1-4 ☐ >16
☐ 4-8 unk Actual
☐ 8-12

7 FLASH POINT (closed cup)
☐ <100°F ☐ >200°F
☒ 100°-140°F 58 °C Actual
☐ 140°-200°F

8 SULFUR (% WT.)
☐ <0.5 ☐ >5
☐ 0.5-2.0 unk Actual
☐ 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
☒ BROMINE	☒	☐	☐	☐	☐
☒ CHLORINE	☒	☐	☐	☐	☐
☒ FLUORINE	☒	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		140	P		140	PCB	ND	
As		ND	Se		ND	Sb		ND	CYANIDES	ND	
Ba		91	Cu		110	Si		[illegible] organic silicon only	SULFIDES	ND	
Cd		4.1	K		2800				DIOXIN	ND	
Cr		92	Na		40000	Sn		ND	OTHERS (SPECIFY)		
Hg		ND	Mn			Zn		250			

I

Does waste contain SOLVENTS? If yes, specify Toluene < 1%
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE ____ TITLE ____ DATE ____

ENSCO USE ONLY
PC
DATE RECEIVED

LAB COPY

DICE 02121

LIQUID AIR CORPORATION

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO: P-566 422 583

August 17, 1989

Mr. Miguel Garcia
Hazardous Waste Control Program
Occupational Health Division
Environmental Management
2615 South Grand Ave., 6th Floor #607
Los Angeles, CA 90007

SUB: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

RE: Documents

Dear Mr. Garcia:

Per your request at our 6/7/89 conference, we are forwarding for your file under separate cover, a parcel containing the following documents relative to the waste material recently shipped to TSD facilities from our Santa Fe Springs facility:

1. Uniform Hazardous Waste Manifests
2. Analytical Reports
3. Waste Material Profile and Data Sheets
4. Material Safety Data Sheets

Very truly yours,

David N. Simon
Manager Regulatory Affairs

DNS/pr

cc: Tom Barber - Liquid Air Corp.
Mr. Wendell Francisco
Hazardous Materials Specialist
Dept. of Health Services
Toxic Substances Div.
107 S. Broadway, Room 7011

dns/1/182-89

2121 N. California Blvd. • P.O. Box 8038, Walnut Creek, CA 94598 • Phone (415) 977-6500 • Telecopier (415) 977-6840

G M Hw

Clus I-225

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

1[illegible] SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460

COUNTY ENGINEER
REPLY ___ ACTN ___ INFO ___
REFD TO ___
MAY 20 2 53 PM '76
REFT ___ PREPREPLY ___
HTB ___ JTR ___ HA ___
GJF ___ CWJ ___ RTR

RECEIVED
MAY 20 1976
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

MAY 19 1976

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. Bill Aldrich, Plant Manager

RE: Wastewater Discharge (B II1-76)

Gentlemen:

This will confirm the discussion on May 5, 1976, between N. O. Acedera of this Board's staff and your Mr. Mike Bonin.

On May 5, 1976, a substantial amount of white deposits was observed in the unlined ditch south of your property. The deposits were traced to a storm drain which drains your lime storage area, and apparently resulted from the lime being washed into the storm drain by storm water runoff.

This is an illegal discharge and not in accordance with applicable provisions of the California Water Code.

The problem was discussed with your Mr. Mike Bonin, who was requested to clean up the lime deposits, and to undertake preventive measures to assure that similar incidents are effectively prevented. Mr. Bonin promised to comply with the request.

All solid waste materials generated by the clean up must be disposed of at a legal point of disposal. Lime mixed with soil is classified under Group II wastes and therefore must the disposed of at a Class II disposal site.

It is requested that you provide a written report to this Board by June 3,1976, of the measures you will take or have taken, to preclude pollutants from being carried off of your property by storm water runoff, and discharged to the storm drain system or other surface water tributaries. Please include in the report the date cleanup of the unlined ditch was completed, and copies of the Waste Haulers Reports indicating final point of disposal of generated wastes.

If you have any questions concerning this matter, please call Mr.Miller E. Chambers.

Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

Report of waste discharge for one [illegible]

cc: State Water Resources Control Board Legal Division (ATTN: Harry Schueller)
Los Angeles County Engineer
Project Planning And Pollution Control Division

9/13/76 – Called Acedera, he said they are using water to cool tanks outside and in back and which the water is going into storm drain. Also, process waste, which is a by-product of dry-acetylene and, which is being hauled away, company wishes to dump to ground.

23

DICE 02123

7/8/76

TO: R. A. HARRIS

THRU: H. B. CHAMBERS

FROM: N. O. Acedera

RE: Follow-up Inspection — LIQUID AIR, INC., Sta Fe Springs (ADA-76)

On 7/2/76, subject was inspected to follow-up cleanup of the unlined ditch south of the company. The cleanup resulted from a request during a complaint investigation on 5/5/76, to remove lime deposits in the ditch which were apparently carried off of the property by rain runoff.

Cleanup of the portion downstream of the discharge point was satisfactorily accomplished. However, further cleanup was still necessary for about a 15-foot strip within the immediate vicinity of the storm drain outlet. Mr. Aldrich told us (was - via Bangle) that completion of cleanup will be done by today, 7/6/76.

It was also learned that this company has an intermittent discharge of 1-pass non-contact cooling water containing no additives into the same unlined ditch which is tributary to Coyote Creek. The wastes result from cooling of cylinders during acetylene-filling operations. The water is sprayed on the cylinders which are loaded on a trailer truck behind the building. The wastes flow to a

-1-

24

DICE 02124

yard drain then to the ditch. Frequency of discharge is currently 1x month, but is expected to become 1x week once a 'government contract' is approved. Volume of discharge was roughly estimated at 3600 gals/24-hour day (based on 3/4" hose fully opened continuously running 24-hrs).

In addition, Mr. Aldrich also told me that they plan to discharge process wastes from acetylene production into the same ditch. The process involved is shown by the fll reaction:

$$CaC_2 + 2H_2O \longrightarrow \underset{\text{(Product)}}{C_2H_2} + Ca(OH)_2$$

$$Ca(OH)_2 \longrightarrow \underset{\text{(Lime)}}{CaO} + H_2O$$

(By-product)

The wastes would be water plus undissociated $Ca(OH)_2$ + traces of acetylene in solution with a pH of about 10.0. Currently, these process wastes are collected + hauled to a legal disposal site. Because of increasing disposal costs through this current method, Mr. Aldrich expressed desire to discharge into the ditch.

I told Mr. Aldrich that first of all, the pH would have to be corrected. He replied that neutralization would not be a problem. I then added that since

DICE 02125

The discharge is to an unlined ditch, minimal limits (TDS, Cl, SO4) will also have to be met in addition to standard parameters. Mr. Albrich then said that he will evaluate his options and will officially inform this board if they'll choose to discharge to the ditch.

The ditch is unlined for about ½ - ¾ mile, before discharge into the lined Coyote Creek. Discharge volume could not be estimated at this time, but very roughly about 1000 gals/day.

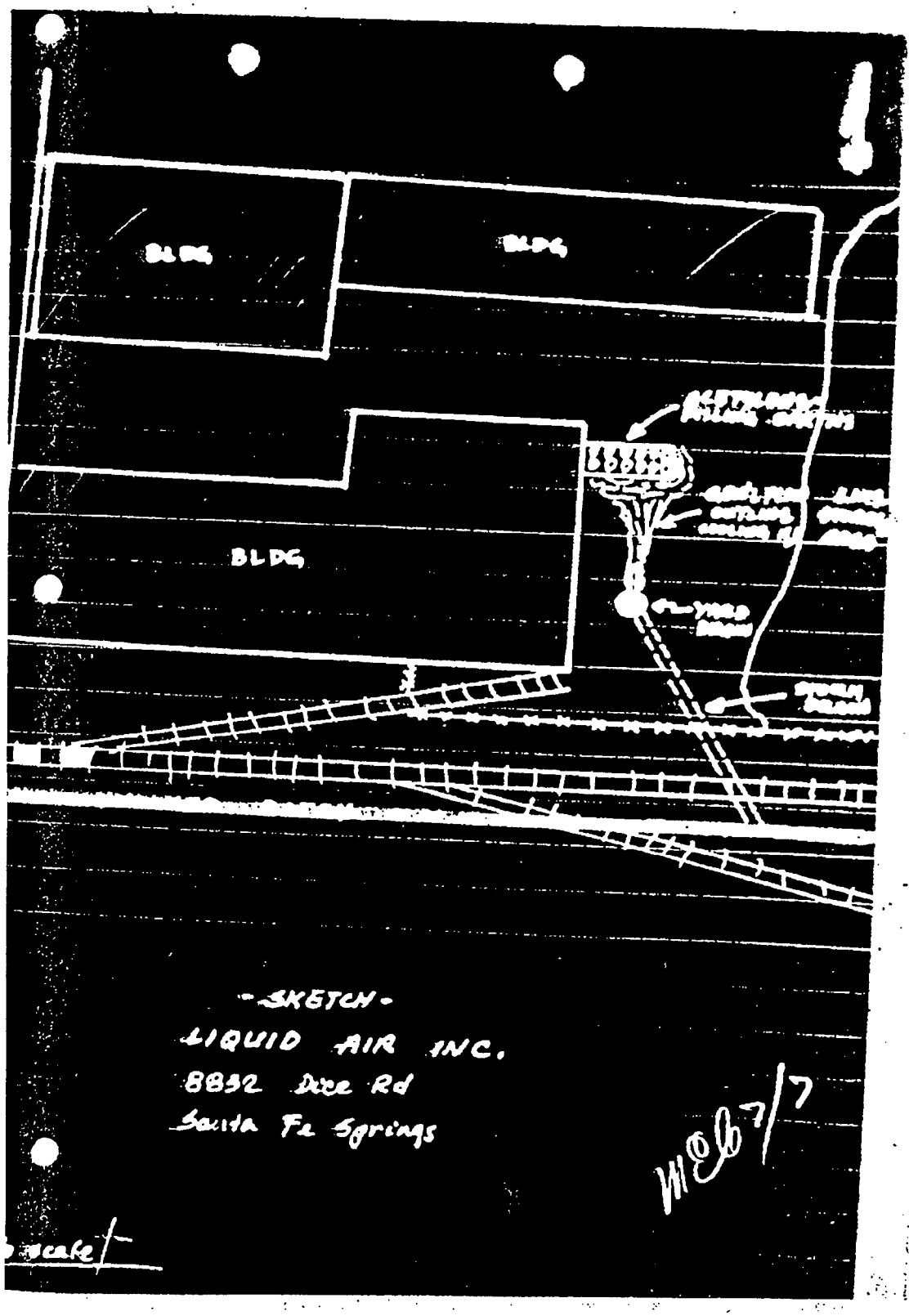
Attached is a draft of letter to discharger.

Joe Serduke

ATTACHMENTS:

1. SKETCH of facility
2. DRAFT of letter to discharger
3. Background info (Lts to + from discharger)

DICE 02126


BLDG
BLDG
BLDG
-SKETCH-
LIQUID AIR INC.
8832 Dice Rd
Santa Fe Springs
MEB 7/7
scale

I-225

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213)620-4460

JUL 12 10 40 AM '76

RECEIVED
JUL 12 1976
POLLUTION CONTROL DIVISION

JUL 9 - 1976

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. C.W. Aldrich, Plant Manager

RE: Application for Waste Discharge Requirements (NPDES)

Gentlemen:

This will confirm the discussion on July 2, 1976, among your Mr. C.W. Aldrich, and Messrs. N.O. Acedera and L.V. Matienzo of this Board's staff.

An inspection of your facilities on July 2, 1976, disclosed that you intermittently discharge cooling water from your acetylene - filling operations into the unlined ditch south of your property. In addition, it was learned that you also propose to discharge acytelene production process wastes into the same ditch.

Section 13376 of the California Water Code requires that any person discharging wastes or proposing to discharge wastes to waters of the United States file a request for waste discharge requirements.

The matter was discussed with your Mr. Aldrich, who was informed that either there must be no discharge to surface waters or waste discharge requirements must be applied for before any discharge can continue.

It is requested that you provide a written report to this Board, detailing the method of disposal of the above-described wastes decided upon. Should you choose to file for waste discharge requirements, the necessary forms to enable you to do so, together with the filing fee schedule, are enclosed.

The written report and/or completed application with the appropriate filing fee, must be submitted to this office by July 26, 1976.

If during review of your application it appears that additional information is necessary, you may be contacted and required to provide additional information. You will be formally notified when your application has been reviewed and is considered complete. In most cases, waste discharge requirements will be requiring that your discharge meet established water quality and effluent standards on a prescribed time schedule.

DICE 02128

If you have questions concerning this matter, please call Mr. Miller F. Chambers of this Board's staff.

Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board, Legal Division
ATTN: Harry Schueller
Los Angeles County Engineer
Project Planning And Pollution Control Division

Enclosures

KH ✓ I-225

STATE OF CALIFORNIA—RESOURCES AGENCY EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
SOUTH BROADWAY, SUITE 4027
ANGELES, CALIFORNIA 90012
(213) 620-4460

COUNTY ENGINEER
REPLY ACTN INFO
REPT TO

NOV 7 1977
11:00 AM

REPT TO PRET REPLY
REV
PRT

RECEIVED
NOV 07 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

NOV 4 1977

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. C. W. Aldrich
Plant Manager

RE: Waste Discharge Requirements (CA0058335) (CI 6301)

Gentlemen:

Reference is made to Order No. 77-3 (NPDES Permit No. CA0058335), prescribing requirements for the disposal of wastes from your facility at the above location.

Requirement A-2 prohibits the discharge of an effluent with total dissolved solids concentration in excess of 700 mg/l; requirement A-5 provides that wastes discharged shall at all times be within the range of 6.0 to 9.0; and, requirement A-8 provides that wastes discharged shall not cause the formation of sludge deposits.

→ On October 31, 1977, this Board's staff found extensive white deposits in the unlined ditch south of your property. The deposits, which extended to Sorenson Avenue, were traced to your discharge point. Laboratory analysis of a sample of the wastes ponded immediately below your discharge point showed a pH of 11.9. These are violations of the above-mentioned requirements. In addition, field tests of the waste indicated a total dissolved solids concentration in excess of 5,000 mg/l. If confirmed by laboratory analysis, this would also be a violation of your discharge requirements.

The problem was discussed with your Mr. Tom Taylor, who was requested to immediately undertake cleanup of the unlined ditch, removing the white deposits and pumping out the wastewaters ponded around the discharge point. Mr. Taylor promised to comply with the request.

It is requested that you undertake cleanup work immediately, and take necessary measures to prevent similar incidents from

29 Cub

DICE 02130

recurring in future and to assure that all requirements are fully complied with at all times.

It is further requested that you submit a written technical report to this Board by November 21, 1977, providing details of the preventive measures you have adopted. Please include in the report the date all cleanup work was completed and the final disposal point of the wastes.

If you have any questions concerning any of the above, please call Mr. Miller E. Chambers of this Board's staff.

Very truly yours,

Richard Coffman

for RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board, Legal Division
ATTN: Harry Schueller
Los Angeles County Engineer, Project Planning and Pollution Control Division
Los Angeles County Flood Control District

CALIFORNIA REGI[illegible] WATER QUALITY CONTROL BOARD, [illegible] ANGELES REGION
[illegible]MPLIANCE INSPECTION REPORT

Discharger LIQUID AIR, INC Reqt.No. 6301

Address 8832 DICE ROAD, SANTA FE SPRINGS Map Ref. 61-B2

Date Inspected 8/3/81 Time 1300 By T.R. BELL

Rep.of discharger contacted STEVEN L. PEBLER, MGR. Telephone (213) No. 945-1383

Reason for Inspection: ✓ Routine ____ Complaint ____ Follow-up correction

Field Observations:	Effluent	Receiving Waters
Color	NO DISCHARGE	DRAINWAY - DRY
Odor	AT TIME OF	
Turbidity	INSPECTION	
Sludge Beds		
Oil		
Weather Conditions		
Other		

Field Mesaurements: Photographs: NONE

Sample collected NONE Time ____ Lab Request No. ____

Effluent ____ Where ____ Receiving Waters ____ Where ____

Field TDS ____ Field pH ____ Depth ____ Flow NO DISCHARGE

Monitoring Reports: Required YES (yes or no) Up-to-date NO (yes or no) Date next due(or last overdue) ANNUALS MISSING FOR 1977 - 1980 - 1981

COMPLIANCE--During this inspection

1. Req'ts in non-compliance(visual/observation) NONE
2. Req'ts not verifiable A-2 (ACETYLENE PRODUCTION PROCESS WASTES)
3. Req'ts verifiable by lab analysis(if sample was not obtained, leave blank)
4. Violation(s) of NONE (date) corrected? — (yes or no)
5. Date Req'ts expire 1/10/82

COMPLIANCE--Continuing violations (not considered corrected, although not necessarily observed or verified during this inspection)

1. Observation NONE
2. Analytical(discharger's results)
3. Analytical(Board staff results)

COMPLIANCE--Time Schedule

1. Does discharger have time schedule for compliance in Board Order? NO
2. Does discharger have a Cease & Desist Order? NO (yes or no) (yes or no)
3. Does discharger have a 13300 Order? NO (yes or no)
4. If yes to any of above, the date for full compliance is: N.A.
5. Is work on schedule for next interim date? N.A. (yes or no). If no, how will this affect end date?

Remarks: AT THE TIME OF INSPECTION THERE WAS NO DISCHARGE OF WASTE-WATERS. THE LIQUID AIR SEPARATION PLANT HAS BEEN SOLD TO M.G. BURDETT CO. AND IS BEING DISMANTLED. THE WASTE HYDRATED LIME PIT STILL EXISTS BUT IS NOT IN USE. ALL WASTE PRODUCE IS STORED IN STEEL TANKS AND SOLD AS QUICKLY AS IT IS PRODUCED. HOWEVER, THE COMPANY DOES USE CITY WATER TO FILL GAS CYLINDERS FOR PRESSURE TESTING ONCE EVERY 10 YEARS. THIS WATER IS THEN DUMPED TO THE STORM DRAIN

Form C-3D (Revised June 1979) (continue on separate sheet if more space needed)

28

DICE 02132

UL 6501

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
ANGELES, CALIFORNIA 90012—4596

(213) 620-4460

DEC 14 1981

Liquid Air Corporation
Industrial Gases Division
P.O. Box 7466
San Francisco, California 94120

ATTENTION: Mr. David Simon,
Project Engineer

RE: Waste Discharge Requirements and NPDES Permit
Santa Fe Springs Facility (CA0058335)

Gentlemen:

Reference is made to the subject waste discharge requirements and permit adopted by this Board for the discharge of spray cooling water and acetylene production process wastes to San Gabriel River.

Reference is also made to your letters of July 20 and October 1, 1981, in which you stated you no longer discharge to surface waters and requested an exemption from reassuring your NPDES permit.

Inasmuch as you have no discharge of spray cooling water or acetylene production process wastes to the San Gabriel River or other waters of the state renewal of your waste discharge permit is not required. You are authorized to suspend all monitoring reports upon receipt of this letter.

Please be advised that if you plan any changes in the discharge in the future or if you propose to discharge from your line holding pond, you may again be required to have a permit. In that event, please communicate with us at least 180 days in advance of such proposed change. The discharge of wastes other than to a community sewer system, without filing a report of waste discharge is prohibited under the California Water Code.

If you have any questions, please call us.

BM:jl

If you have any questions, please call us.

Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: Environmental Protection Agency, Region IX, Permits Branch
State Water Resources Control Board, Division of Technical Services
ATTN: Mr. Walter Pettit
Liquid Air Corporation

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

RECEIVED
FEB 24 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

INDUSTRIAL WASTE SURVEY

City SANTA FE SPRINGS I-File No.

SMD No. 0515.00 Permit No. 4061 & 4784

FIRM NAME LIQUID AIR, INC.

Address 8832 S. DICE ROAD Telephone No. 685-4960

between BURKE ST. and LOS NIETOS ROAD

Contact Name BILL ALDRICH Title PLANT MANAGER

Business and processes: MFG. INDUSTRIAL GASES. ACETYLENE, HYDROGEN, NITROGEN, OXYGEN AND ARGON.

Type and Quantity I.W. CYLINDER TESTING WATER; SPENT CAUSTIC FROM SCRUBBING SYSTEM; COOLING TOWER BLEED-OFF AND FLOOR WASH DOWN.

WASTE DISPOSAL: Sample Taken NO Parameters HAVE

Sewer: SMD LOCAL San.Dist. 18 Volume 15,000 GPD

Surface Drainage ____ Cooling Water ✓ Uncontaminated ____

Ground SLUDGE PIT *Holding ~~Tank~~ SUMP ✓ Level Alarm —

Other ACETYLENE TANK COOLING WATER TO NORTH FORK COYOTE CREEK

PRETREATMENT FACILITIES: Location SEE SKETCH ON BACK

Trap: Standard ____ Non-Standard ① NOTT-FC 1500 GALS

Other ③ SPECIAL 4'x8'x10' DEEP. ④ SPECIAL SUMP

REQUIREMENTS AND DATA:

Inspection YES Frequency II Permit HAVE

New Industry NO Resurvey YES T.C. Requested HAVE

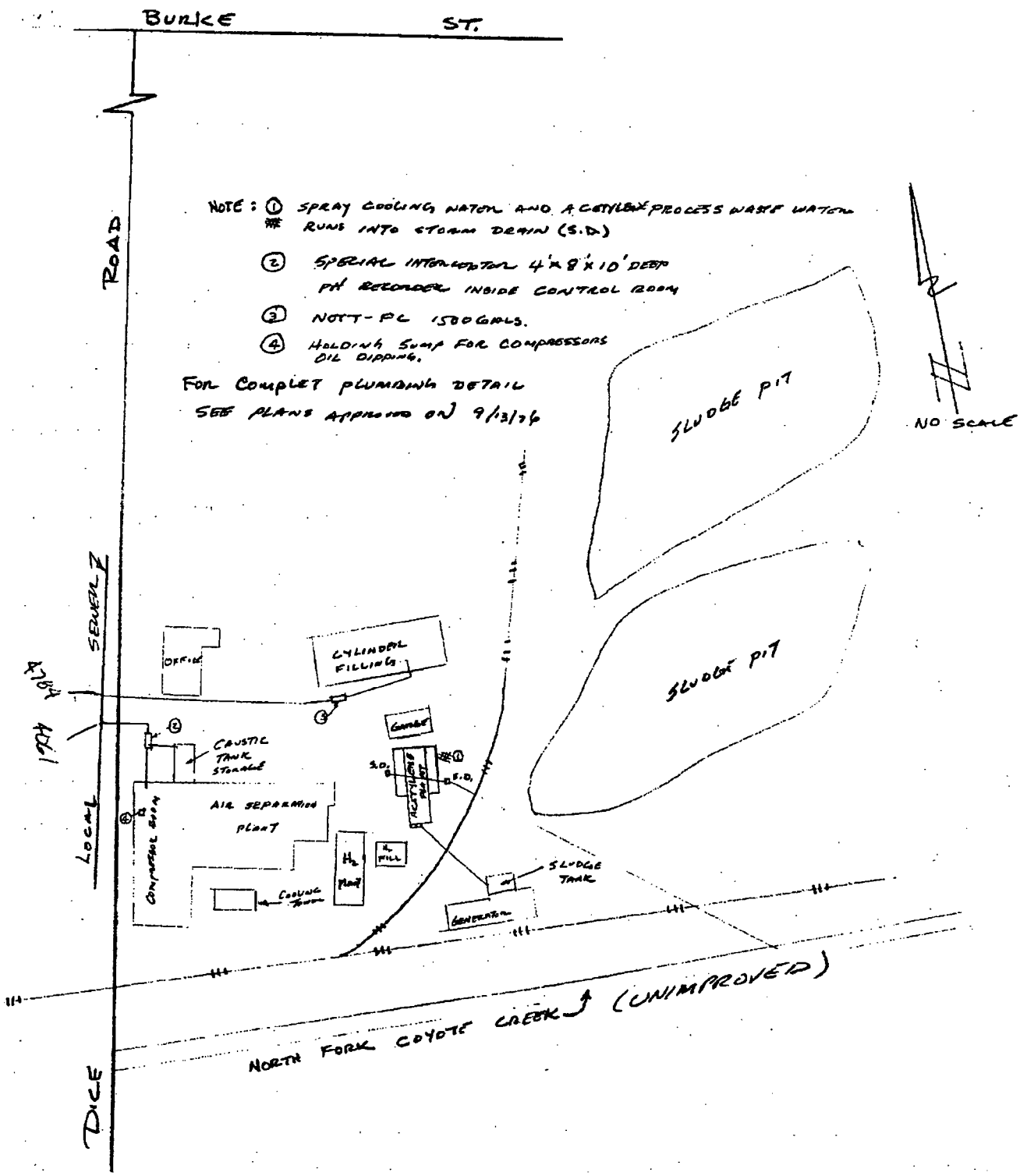
Classification 205 SIC No. 2813 Disp. Method 1 & 5

REMARKS AND RECOMMENDATIONS: RESURVEY FOR FILE INFORMATION. BY-PRODUCTS OF CALCIUM CARBIDE AT THE ACETYLENE PLANT IS PUMP TO SLUDGE HOLDING TANK, LATER HAULED TO LEGAL POINT OF DISPOSAL.

Survey by: Jerry Woods Date 2-8-77

5-74

DICE 02135


BURKE ST.
ROAD
SEWER
LOCAL
DICE
NOTE: ① SPRAY COOLING WATER AND ACETYLENE PROCESS WASTE WATER RUNS INTO STORM DRAIN (S.D.)
② SPECIAL INTERCEPTOR 4'x8'x10' DEEP
pH RECORDER INSIDE CONTROL ROOM
③ NOTT-PC 1500 GALS.
④ HOLDING SUMP FOR COMPRESSORS OIL DIPPING.
FOR COMPLET PLUMBING DETAIL
SEE PLANS APPROVED ON 9/13/76
NO SCALE
SLUDGE PIT
SLUDGE PIT
OFFICE
CYLINDER FILLING
GARAGE
CAUSTIC TANK STORAGE
AIR SEPARATION PLANT
ACETYLENE PLANT
S.D.
S.D.
SLUDGE TANK
GENERATOR
COOLING TOWER
NORTH FORK COYOTE CREEK (UNIMPROVED)

LIQUID AIR

[illegible]

December 26, 1991

[illegible]
[illegible]
[illegible] Santa Fe Springs Fire Dep
[illegible] Springs, CA [illegible]

[illegible] LIME PRODUCT CONTAINMENT [illegible] LOCATED AT 8832 DICE RD., SANTA FE SPRINGS, CA

[illegible] Boettcher:

[illegible]

[illegible] of steel storage [illegible] area storage (Pits).

1. [illegible] 12/15/91
2. [illegible] 02, [illegible]
3. [illegible]
4. [illegible] we encounter major problems
5. [illegible] will cease upon start up of [illegible]

Reclamation of lime product open containment storage areas (Pits).

1. [illegible] in soil [illegible] required [illegible] grading

1047-91 rp

Street Address: [illegible] North [illegible] • [illegible] • Telephone: [illegible]
Mailing Address: [illegible] Box [illegible] Walnut Creek, CA 94597

DICE 02137

requirement and related permit for closure of this storage area?

We shall keep you informed of our progress. If you can provide a written answer as to guidelines on closure it will be most appreciated.

If you require additional information, please contact me.

Regards,

Robert D. Predmore
Director, Technical Services

cc: Bryan Leger

RDP/adb

1047-91.rp

County of Los Angeles Health Department

HEARING NOTICE Nº 1710

DATE 5 - 12 - , 19 89

TO LIQUID AIR CORPORATION ADDRESS 8832 DICE ROAD SANTA FE SPRINGS

ATTENTION: T. I. BARBER

Upon inspection at the above property we found that you had not complied with section(s):

SEE NOTICE OF VIOLATION DATED 5·12·89

☐ State Health and Safety Code, ☐ California Administrative Code, ☐ Los Angeles County Ordinance No. 7583,

☐ _____ City Ordinance No. _____, ☐ Other Code _____

Therefore, you are hereby requested to appear at a hearing on this matter. It will be held at 2:00 (A.M.) (P.M.)

on MAY 24TH, 19 89

ADDRESS:

RECEIVED BY: T. I. BARBER

At this hearing you may present your plans for correcting the existing violations or reasons for non-compliance. You may be represented by legal counsel. Failure to appear may be deemed cause for further legal action.

PH (213) 744-3223

COUNTY OF LOS ANGELES HEALTH OFFICER

MAIL SERVICE: ☐ First Class ☐ Certified

By [signature] C. Johnson

Authorized Representative

76M271A-8/70
H 584

FILE

DICE 02139

HAZARDOUS MATERIALS CONTROL PROGRAM

Owner T. I. Barber (Mgr)

Business Liquid Air Corporation

Address 8832 Dice Road

City, Zip Code Santa Fe Springs 90670

Date 5-12-89

COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
OCCUPATIONAL HEALTH DIVISION
HAZARDOUS WASTE CONTROL PROGRAM
2615 S. GRAND AVENUE - ROOM 607
LOS ANGELES, CALIFORNIA 90007

NOTICE OF VIOLATION AND ORDER TO COMPLY Chris Johnson

The following conditions or practices observed at your facility are violations of the California Code of Regulations (CCR), Title 26, Division 22 or the California Health and Safety Code, Division 20, Chapter 6.5, (H&S) or both, which relate to the disposal, management, transportation, and storage of hazardous waste. YOU ARE DIRECTED TO CORRECT THE VIOLATIONS WITHIN THE TIMES SPECIFIED BELOW.

CORRECTION DATE

DISPOSAL:

☐ 1. Discontinue the disposal of hazardous waste to an unauthorized point(s). (H&S 25189.5).

☐ 2. Legally dispose of all hazardous waste and contaminated materials (H&S 25189.5) discharged to

5-30-89 ☑ 3. Legally dispose of all stored hazardous waste and contaminated materials located at (H&S 25___) 8832 Dice Rd

MANAGEMENT:

☐ 4. Submit to this office a copy of your facility's hazardous materials contingency plan and employee training plan. (CCR 67105, 67120-67126, 67140-67145)

TRANSPORTATION:

☐ 5. Discontinue the transport of hazardous waste until the following have been met:

☐ A. Obtain an EPA Identification Number from the State Department of Health Services at (916) 324-1781. (CCR 66472)

☐ B. Complete a uniform Hazardous Waste Manifest or obtain a receipt when applicable under State Department of Health Services variance procedures. (H&S 25160 and 25143)

☐ C. Transport all hazardous waste by a State registered hauler. (H&S 25163)

6-5-89 ☑ 6. Submit to this office a copy of the completed hazardous waste manifest(s) used to dispose of (see ** 3) (CCR 66328).

☐ 7. Keep copies at your facility of all completed manifests, receipts or both for a minimum of three (3) years and make documents available for agency review. (CCR 66492)

STORAGE:

5-12-89 ☑ 8. Discontinue the storage of hazardous waste for longer than 90 days without a permit from the State Department of Health Services. (CCR 66508)

5-12-89 ☑ 9. Store all hazardous waste in compatible containers which are closed and in good condition. (CCR 66241 - 67243)

5-12-89 ☑ 10. Properly label all containers with the following: the words, "HAZARDOUS WASTE"; name and address of generator; hazardous properties; a composition and physical state of the waste; and the accumulation date. (CCR 66508)

OTHER:

☐ 11. Provide this office with a site assessment and mitigation plan for the contamination at your facility.

5-12-89 ☑ 12. You are required to maintain compatible storage of all hazardous materials and hazardous wastes.

Failure to fully comply with this Notice and Order may result in further legal action.

T. I. Barber
Owner or Authorized Representative
T. I. BARBER

Chris E. John
Hazardous Materials Specialist
Christopher Johnson

HMCP 2/89

DICE 02140

JMC012793-1A THEL
JMC012793-6A

SAMPLE AND CHAIN OF CUSTODY RECORD

LABORATORY JOB NUMBER: SJE 5146-5147/1

SAMPLE IDENTIFICATION

Sample Source or Company Name: LIQUID AIR CORP
Address: 8632 DICE RD. SANTA FE SPRINGS
Reason For Sampling: ☐ STRIKE FORCE ☐ OTHER:
Monitoring Requested By: MARTY KASMAN AUTHORIZED BY: RICHARD GILLASPY PHONE:

SAMPLE COLLECTION INFORMATION

Sampled By: JIM MCCARRON Submitted To Laboratory By: [illegible]
Total Quantity of Sample Collected: 6 Total Quantity of Composite Prepared: Total Quantity Submitted To Lab: 6
Sample Preservation Used: Sample Split With Company?: (Y) N Name: BRYAN LEGER
Flow When Sampled:
Sample Taken From:

☐ Sample Box
☐ Clarifier
☐ Cleanout
☒ Other:

Sample Method:

☒ Grab
☐ Composite-Timed With ____ minute intervals.
☐ Composite-Flow With ____ gallon intervals.

Sample Grab or Composite Times:

At/or From 2330 (Hr. Min.) ☐ A.M. ☒ P.M. 1-27 (Month Day) 1993 (Year)
To 0115 (Hr. Min.) ☒ A.M. ☐ P.M. 1-28 (Month Day) 1993 (year)

Condition of Clarifier, Sample Box, Other Observations:

FIELD TEST RESULTS

pH 12-14 Flammability Redox Cyanide
Odor Other Other Other
Sulfide Other
NOTES TO ANALYSTS:

LABORATORY INFORMATION

Location Code: Interagency IW 03000 Type: SFS
☐ TS14R03 LACHD ☐ TS14R06 LAC SHERIFF ☐ TS14R09-LA CITY ATTORNEY
☐ TS14R04 CA DOHS ☐ TS14R07 CHP ☐ TS14R10 LAC D.A.
Accounting Charges: ☐ TS14R05 LA CITY ☒ TS14R08 LAC FIRE ☐ TS14095 LACSD
BS [illegible] Logged-In By:
Report To: CARR

LABORATORY TESTS

Check Tests Requested

	CONSTITUENT	RESULTS	CODE
X	pH		101
	TOTAL CYANIDE, mg/l CN		206
	TOTAL ARSENIC, mg/l As		705
	TOTAL CADMIUM, mg/l Cd		708
	TOTAL CHROMIUM, mg/l Cr		709
	TOTAL COPPER, mg/l Cu		712
	TOTAL LEAD, mg/l Pb		714
	TOTAL MERCURY, mg/l Hg		717
	TOTAL NICKEL, mg/l Ni		718
	TOTAL SILVER, mg/l Ag		722
	TOTAL ZINC, mg/l Zn		724
	FLASH POINT °C		105
	TOTAL PHENOLS, mg/l C_6H_5OH		312
	OIL AND GREASE, mg/l		408

Other

	CONSTITUENT	RESULTS	CODE
X	FISH BIOASSAY (96 hr)		

CUSTODY RECORD

Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Jim McCarron	0210 1-28-93	Marty Kasman
Marty Kasman	1310 1-28-93	Paul Bueen
Paul Bueen	1500 1-28-93	[illegible]

F. D. 157 (9-48)

LOS ANGELES COUNTY FIRE DEPARTMENT
FIRE PREVENTION BUREAU

INSPECTION WORK SHEET

DATE 10-17-50 ENG. CO. 15 REQUEST NO. _____

NAME Burnett Oxygen Co

ADDRESS 8838 S. Dice Rd, Los Nietos

OCCUPANCY Acetelezene & Oxygen Plant

DESCRIPTION 15-C
(List requirements or recommendations below
To be made in duplicate-Original to Hdqtrs)

Contacted foreman who did not know about request for insp, but stated they were building a loading rack and could not use welding torch. While plant was in operation as welding switch when energized shuts down rest of plant. Told him we did not want any welding done while plant was in operation. Wanted to know what part of code stated welding switch should be connected as is. Told Mr Green I would have the County Elec Engr make insp.

10/19/50 Met Mr Veit & Dist Engr Lansing talked to plant Mgr Bernstein. Told him no welding while plant was in operation, ord water pump to be wired so it is in operation at all times. Before it was off while welding

E E Christensen
Captain - Inspector

DICE 02143

HAZARDOUS MATERIALS CONTROL PROGRAM

REQUEST FOR SERVICE LOG

Log # (yrnnnn) 930201 Date []Emergency Response []Illgl Storage

Received: By _____ 01/27/93 []Illgl Disp Onsite []Clean Up

Log Entry: By GILLASPY 01/28/93 >Illgl Disp Offsite []P. H. L.

Name: Liquid Air Corp. Phone: _____

Address: 8832 Dice Road City: Santa Fe Springs

Substance: Contaminated lime water Zip: 90670

Scope: Illegally discharged hazardous waste to storm drain.

Status: (The complaint is under investigation.)

Section Assign To: []SGV []SFV []SE []SB []C []M >ER []OH >ENF []SM Date: 01/27/93

Inspector Assign To: KASMAN Assign By GILLASPY Date: 01/28/93

Service Requested By	Address	Phone
	Fish & Game	

DICE 02144

HAZARDOUS MATERIALS CONTROL PROGRAM

REQUEST FOR SERVICE LOG

Log # (yrnnnn) 930241 Date ><Emergency Response []Illgl Storage

Received: By OMORUYI 01/23/93 []Illgl Disp Onsite []Clean Up

Log Entry: By OMORUYI 02/01/93 []Illgl Disp Offsite []P. H. L.

Name: Liquid Air/Flood Control Channel Phone: _____

Address: 8832 Dice Road City: Santa Fe Springs

Substance: Calcium hydroxide Zip: _____

Scope: Calcium hydroxide discharged from liquid air went down flood control channel.

Status: (The complaint is under investigation.)

Section Assign To: []SGV []SFV []SE []SB []C []M ><ER []OH []ENF []SM Date: / /

Inspector Assign To: OMORUYI Assign By _____ Date: / /

Service Requested By	Address	Phone
	Santa Fe Springs Fire Department	310-944-9713

DICE 02145

No. 010849

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS CONTROL PROGRAM

Owner _____

Business LIQUID AIR

Address 8832 DICE RD

City, Zip Code SANTA FE SPRINGS CA 90670

Date 01-23-93

Refer Reply To:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-3223
(213) 748-1605 (FAX)

NOTICE OF VIOLATION AND ORDER TO COMPLY

The following conditions or practices observed at your facility are violations of the California Code of Regulations (CCR), Title 26, Division 22 or the California Health and Safety Code, Division 20, Chapter 6.5, (H&S) which relate to the storage, management, transportation, and disposal of hazardous waste. YOU ARE DIRECTED TO CORRECT THE VIOLATIONS WITHIN THE TIMES SPECIFIED BELOW.

CORRECTION DATE

DISPOSAL:

01-23-93 ☒ 1. Discontinue the disposal of hazardous waste to an unauthorized point(s) (H&S 25189.5) Caustic Material to Flood Control Channel up to a point where pH is Neutral.

01-23-93 ☒ 2. Legally dispose of all hazardous waste and contaminated materials (H&S 25189.5) _____ (☐ stored at/ ☒ discharged to) Flood Control Channel (H&S 25189.5) & (H&S 25186.2)

MANAGEMENT:

☐ 3. Submit to this office a copy of your facility's hazardous materials contingency plan and employee training plan. (CCR 67105, 67120-67126, 67140-67145)

TRANSPORTATION:

☐ 4. Discontinue the transport of hazardous waste until the following have been met:

☐ A. Obtain an EPA Identification Number from the State Department of Health Services at (916) 324-1781 (CCR 66472)

☐ B. Complete a uniform Hazardous Waste Manifest or obtain a receipt when applicable under State Department of Health Services variance procedures.

☐ C. Transport all hazardous waste by a State registered hauler. (H&S 25163)

☐ 5. Submit to this office a copy of the completed hazardous waste manifest(s) used to dispose of _____ (CCR) 66328).

☐ 6. Keep copies at your facility of all completed manifests, receipts or both for a minimum of 3 years and make documents available for agency review. (CCR-66492)

STORAGE:

☐ 7. Discontinue the storage of hazardous waste for longer than 90 days without a permit from the State Department of Health Services (CCR 66508).

☐ 8. Store all hazardous waste in compatible containers which are closed and in good condition. (CCR 66241-67243)

☐ 9. Properly label all hazardous waste containers with the following: the words, "HAZARDOUS WASTE"; name and address of generator; hazardous properties; a composition and physical state of the waste; and the accumulation date. (CCR 66693-66746)

OTHER:

☐ 10. Provide this office with a site assessment and mitigation plan for the contamination at your facility (H&S 25245-25249)

☐ 11. Provide this office with a copy of a waste determination conducted by a state certified laboratory or waste documentation in accordance to the regulations. (CCR 66693-66746)

☐ 12. _____

Failure to fully comply with this Notice and Order may result in further legal action.

Owner or Authorized Representative

Hazardous Materials Specialist

H-2858 76N702V (5/90)

INSPECTOR COPY

DICE 02146

LIQUID AIR

2121 North California Boulevard
Walnut Creek, California 94956 USA
Telephone: 415/977-6500
FAX: 415/977-6225
Telex: (ITT) 470020

To: GROUNDWATER TECHNOLOGIES, INC	
ATTENTION: DAVID BARROWS	REFERENCE:
FROM: DAVID SIMON (415) 977-6657	S F Springs Waste Drums.
Number of Pages (Including Header) 2 DATE: 12/9/01	

David:

More economical alternative than incineration for 45 empty drums & 58 full drums containing chemicals on attached?

David Simon

DICE 02147

INTERNATIONAL TECHNOLOGY CORPORATION

May 13, 1988

Thomas Barber
Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Re: Hazardous Waste Drums

Dear Mr. Barber:

The following is an up to date inventory of your hazardous waste drums previously packaged by our remediation personnel:

1.	Poison B solids	12	55 gal. drums
2.	Corrosive solids	12	55 gal. drums
3.	Poly corrosive solids	8	55 gal. poly drums
4.	Poly acid solids	6	55 gal. poly drums
5.	Oil	12	55 gal. drums
6.	Oil/water liquid	1	85 gal. overpack
7.	Flammable solids (metal beads) PSN: Flammable Solid, Metal Beads	4	55 gal. drums
8.	Oil/water solidified	2	55 gal. drums
9.	Paint (lab packed)	1	55 gal. drum
10.	Empty steel drums	40	
11.	Empty poly drums	5	

Totals: 45 empties
58 steel & poly drums, full

Regional Office
336 West Anaheim Street • Wilmington, California 90744 • 213-830-1781

INTERNATIONAL TECHNOLOGY CORPORATION

November 15, 1988

Mr. Thomas Barber
Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Re: Incineration & Transportation Costs
Rollins Environmental, Deer Park, Texas

Mr. Barber:

As per our phone conversation of 11/14/88, the transportation charges remain the same for the drummed material at your facility. IT was able to reduce the incineration costs from $1.64/lb. to $1.60/lb. The estimated weight per drum will range from 300 lbs. to 400 lbs. per 55 gallon drum.

Rollins has informed us these figures do not include reactive materials, oxidizers, radioactive or explosive materials.

These prices include the re-labeling and manifesting of all drums.

Sincerely,

Thomas C. Albers
Sales Account Manager

TCA/ja

Regional Office
P.O. Box 1256 • 336 West Anaheim Street • Wilmington, California 90748 • 213-830-1781

IT Corporation is a wholly owned subsidiary of International Technology Corporation

LIQUID AIR CORPORATION
2121 N. California Blvd.
Walnut Creek, CA 94596
Telephone: (415) 977-6500

November 14, 1988

CERTIFIED MAIL RETURN RECEIPT REQUEST NO. P-566 422- 484

Ms. Nita House, Public Information Officer
U.S. EPA, Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

Subject: Rollins Incinerator Facility in Deer Park, TX

Dear Ms. House:

Pursuant to the Freedom of Information Act 5 USC 552, I request the following documents to be forwarded to the attention of the undersigned at the letterhead address:

1. Copy of EPA RCRA violations, administrative orders, consent decrees or stipulation agreements issued to Rollins in Deer Park, TX from January 1, 1987 through November 11, 1988.

2. Copy of EPA inspection or investigation reports from January 1, 1987 through November 11, 1988 on the Rollins facility relative to CERCLA matters, i.e., investigations relating to releases or threatened releases of hazardous substances into the soil or groundwater.

We will pay copying fees for the above documents. If the cost exceeds $300.00, or if there are any questions regarding this FOIA request, please contact the undersigned at 415-977-6657.

Thank you for your assistance in this matter.

Sincerely,

David Simon
Manager Regulatory Affairs

DNS/je

cc: T. Barber - CGD Santa Fe Springs
I. Pak - CGD Union City

dns/1/302-88

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

INTERNATIONAL TECHNOLOGY CORPORATION

October 20, 1988

Mr. Thomas Barber
Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA

Re: Incineration and Transportation Costs for Drummed Material
Located at 8832 Dice Road, Santa Fe Springs, CA

Dear Mr. Barber:

IT Corporation is pleased to submit the following prices for incineration and transportation at the Rollins Environmental facility in Dear Park, Texas.

Transportation	$75.00/drum
Incineration Costs	$ 1.64/pound

These prices include the re-labeling and manifesting of all the drums.

We look forward to being of service to you and Liquid Air Corporation.

Sincerely,

Thomas C. Albers
Sales Account Manager

TCA/ja

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

In Reply
Refer to: T-2-4
Facility: Casmalia Resources
EPA ID# CAD020748125

Romic Chemical Corp.
EPA ID# CAD009452657

RIN-9-0890-88

AUG 2 2 1988

Mr. T.I. Barber
Plant Manager
Liquid Air Corporation
Industrial Gases Division
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Barber:

This is in response to your Freedom of Information Act request dated June 29, 1988 (RIN-9-0890-88). You discussed the request in telephone conversations with Steve Johnson and Ron Leach of this office on July 21, 1988 and July 25, 1988 respectively. In the discussions, you indicated that you wanted current documents, not over 12 months old, that summarize the information listed in your letter. Per your request, please find enclosed copies of documents contained in our files pertaining to Casmalia Resources and Romic Chemical Corporation. These records include:

1. RCRA Compliance Investigation, Casmalia Resources, LTD. EPA National Enforcement Investigations Center, February 1988, EPA-330/2-88-024.

2. Letter, May 6, 1988, William R. Leonard, Executive Officer, California Regional Water Quality Control Board - Central Coast Region to Kenneth H. Hunter, Jr., President, Casmalia Resources, transmits Cleanup or Abatement Order No. 99-76.

3. Statement of Basis, Intent to Deny a Permit to Operate Under Resource Conservation and Recovery Act (RCRA), Casmalia Resources, LTD, EPA.

4. Warning Letter, January 20, 1988, from Phil Bobel, Chief, Waste Compliance Branch, EPA Region 9, to Peter Schneider, Romic Chemical Corporation, lists deficiencies noted in November 3, 1987 inspection of Romic facility.

5. Letter, Notice of Ineligibility, March 4, 1988, from Jeff Zelikson, Director, Toxics and Waste Management Division, EPA Region 9, to Peter Schneider, Romic Chemical Corporation, discusses January 20, 1988 letter and Romics ineligibility to receive hazardous substances from response actions taken under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

6. Letter, March 14, 1988, from Karen Schwinn, Chief, Waste Compliance Branch, EPA Region 9, to Peter Schneider, Romic Chemical Corporation, indicates that Romic has returnd to compliance for the deficiencies noted in the January 20, 1988 Warning Letter.

7. Letter, Notice of Ineligibility, May 17, 1988, from Jeff Zelikson, Director, Toxics and Waste Management Division, EPA Region 9, to Peter Schneider, Romic Chemical Corporation, indicates that there have been environmentally significant releases of hazardous constituents from the facility and discusses Romics ineligibility to receive hazardous substances from response actions taken under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Unfortunately, we are unable to comply with your request in whole, for the reason that one of the records requested is exempt from the mandatory disclosure requirements of the Freedom of Information Act, as provided in 40 CFR, Part 2, Section 2.118(a), as matters that are interagency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the Agency. This claim of exemption pertains to the deliberative process privilege. The exempted record is titled, "RCRA Facility Assessment Preliminary Review Report," Romic Chemical Corporation, East Palo Alto, California, prepared for EPA Region 9 by A.T. Kearney, Inc. and Science Applications International Corporation, September, 1987. The report is preliminary and contains unsubstantiated information.

You may appeal this determination within thirty days of receipt of this letter by writing to the Freedom of Information Of-

ficer, A-101, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. Your appeal letter should refer to the date of this letter, your Request Identification Number (RIN-9-0890-88), my name and address, and the record to which access was denied.

Pursuant to 40 CFR, Part, Section 2.120(a), there will be no fee charged for providing the enclosed information.

If you have any questions, please contact Ron Leach of this office at (415) 974-7523.

7965

Sincerely,

Laura Yoder for

Jeff Zelikson
Director
Toxics & Waste Management Division

Enclosure

INTERNATIONAL TECHNOLOGY CORPORATION

May 13, 1988

Thomas Barber
Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Re: Hazardous Waste Drums

Dear Mr. Barber:

The following is an up to date inventory of your hazardous waste drums previously packaged by our remediation personnel:

1.	Poison B solids	12	55 gal. drums
2.	Corrosive solids	12	55 gal. drums
3.	Poly corrosive solids	8	55 gal. poly drums
4.	Poly acid solids	6	55 gal. poly drums
5.	Oil	12	55 gal. drums
6.	Oil/water liquid	1	85 gal. overpack
7.	Flammable solids (metal beads) PSN: Flammable Solid, Metal Beads	4	55 gal. drums
8.	Oil/water solidified	2	55 gal. drums
9.	Paint (lab packed)	1	55 gal. drum
10.	Empty steel drums	40	
11.	Empty poly drums	5	

Totals: 45 empties
58 steel & poly drums, full

Regional Office
336 West Anaheim Street • Wilmington, California 90744 • 213-830-1781

Numbers 1-4 and 7-11 will be disposed of at:

Casmalia Resources
(secure landfill)
NTU Road
Casmalia, CA 93429
EPA ID #CAD020748125

Numbers 5 & 6, oil and oil/water liquids will be treated/disposed of at:

ROMIC Chemical
(oil treatment)
2081 Bay Road
East Palo Alto, CA 94303
EPA ID #CAD009452657

At Casmalia these prices will prevail:

Items #1-4, 7&8	44 drums @ $97.50 =	$ 4,290.00
Item #9	1 drum @ $188.00 =	188.00
Items #10 & 11	45 empty drums @ $35.00	1,575.00

None of the above items is amenable for other than landfill disposal.

At ROMIC, this treatment price will prevail:

Items #5 & 6	Oil & oil/water 13 drums	Total	$ 2,750.00
		Total Disposal	$ 8,803.00
Misc. transportation charges			1,400.00
Labor to crush & load			1,372.00
		Total	$12,947.00

~11,575

The drums will be picked up at a reasonable schedule in order to maximize economy of pricing for Liquid Air.

I will be in a position to quote pricing on the lime pit and cylinders in the very near future.

If there are any questions, please do not hestiate to contact me.

Sincerely,

IT Corporation

Kenneth J. Kulinowski
Manager of Field Sales

KJK/ja

cc: Travis Hunt

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012 • (213) 974-

Reply refer to:
2615 S. Grand Ave., Rm. 607
Los Angeles, CA 90007
Tel. (213) 744-3235

DATE: 4-20-88

TO: LIQUID AIR CORP./J.J. BARGER ADDRESS: 8832 DICE ROAD, SANTA FE SPRINGS

SUBJECT: HAZARDOUS MATERIALS MANAGEMENT ADDRESS: SAA

In order to comply with the State Health and Safety Code/California Administrative Code, you are directed to take the following actions marked below:

____ 1) Discontinue immediately the disposal of hazardous wastes (_____) to unauthorized locations (_____

____ 2) Discontinue immediately the transport of hazardous wastes (_____) off site except by a registered hazardous waste hauler, under manifest and to a State Health Department permitted facility.

____ 3) Remove and legally dispose by _____, all hazardous wastes/contaminated materials discharged to/stored at _____. (NOTE: ALL hazardous waste transported off site by vehicle must be transported under Hazardous Waste Manifest, by a State Health Department registered hauler).

____ 4) Provide this office by _____, a site assessment and decontamination plan for the above subject contaminated area (Use the Site Characterization Mitigation Form available from this office).

X 5) Provide this office by 5-25-88, a photo copy of the completed manifest receipt used to dispose of WASTE OIL, SOLVENT, LIME AND ACIDS

____ 6) Store by _____, all hazardous waste in non-leaking, properly labeled and dated containers with tight fitting lids.

____ 7) Discontinue the storage of hazardous waste/treatment of hazardous waste for longer than _____ without written permission from the State Department of Health Services (213) 620-2380.

____ 8) Maintain copies of all hazardous waste manifests and receipts of the above subject facility for agency review.

____ 9) Obtain an EPA Number from the State Department of Health Services (916) 324-1781 prior to transport of any hazardous waste off site.

X 10) Provide this office by 5-25-88, a copy of a hazardous materials contingency plan and employee training plan for the above subject facility pursuant to California Administrative Code, Title 22, Articles 19 and 20, and Section 67105.

X 11) Additional Requirements: PROVIDE SOIL ANALYSIS (LIME STORAGE AREA) AND OTHER PERTINENT DOCUMENTATION. (SAME DOCUMENT SUBMITTED TO REGIONAL WATER QUALITY CONTROL BOARD WILL BE SUFFICIENT)

RECEIVED BY: U.S. MAIL HEALTH OFFICER [signature]
HAZARDOUS WASTE CONTROL PROGRAM

DICE 02158

HAZARDOUS MATERIALS CONTROL PROGRAM

TELEPHONE REQUEST

301 Key

Log # (yrnnnn) 880926-29 Date [ ]Emergency Response [ ]Illgl Storage

Received: By SJ 3/14/88 [ ]Illgl Disp Onsite [ ]Clean Up

Log Entry: By MUNOZ 3/15/88 [ ]Illgl Disp Offsite [ ]P. H. L.

Name: Liquid Air Co. Phone:

Address: 8832 Dice Road City: Santa Fe Springs

Substance: unknown hazardous waste Zip:

Scope: Company was ordered to clean up some 55 gal drums and contaminated materials. Fire Dpt do not know who is handling this clean up or the results of the clean up. Fire Dpt. received informations from DOHS (John Hostak), and requesting a joint

Status: inspection to clear the above matter.

Section Assign To: [ ]NE [ ]NW [✓]SE [ ]SW [ ]ER [ ]OH [ ]ENF [ ]SM Date: 3/15/88

Inspector Assign To: Assign By Date: / /

Service Requested By Address Phone

Dave Clunk Santa Fe Fire Dpt. (213)944-9713

3-15-88 Spoke with John Hoffstater State DOHS today regarding his investigation of the site. The Company has a problem with off-site drifting of Carbide waste. Additionally they have 2 unline pits in which they place lime waste pH=12+ from their acetylene operation. There was several containers drums of waste observed inside the unlined pit. (paint waste, out of date acids Zn chromate). - See Richard Gillaspy prior to inspecting

INSPECTED BY B. WOJCIK & R. GILLASPY

NO CRIMINAL ACTION PENDING : SEE INSPECTIONAL FILE

HCP (1/88)

DICE 02159

HAZARDOUS MATERIALS CONTROL PROGRAM
TELEPHONE REQUEST

Log # 4448 [] Emergency Response [] Illgl Disp Onsite [] Clean Up [] I. H.
Log Entry By MK [] Samples Collected [] Illgl Disp Offsite [] Court Case [] Odor
[] Illgl Storage [] Illgl Transport [X] P. H. L. [] Refer

Name: ALPHA GAS - LIQUID AIR Date: 11/5/87 Phone:
Address: 8832 DICE ROAD City: SANTA FE SPRINGS
Substance:
Zip: 90670
Scope: PHL Request

Status:

Section Assign To: SE (Kaneshiro) Assign By: CC Date: 11/12/87
Inspector Assign To: Molleda 713 Assign By: AK Date: 11/15/87
Service Requested By Address Phone

Proposition 65: Received [] Confirmed [] Sent to E.M.D. [] Date: / /

THEY ARE GOING INTO BUSINESS AND WILL NEED A PHL FOR HAZARDOUS WASTE - WILL GENERATE LIQUID HAZWASTE.

1-12-88 MADE INSPECTION SEE OIR

DICE 02160

SIC. 2313

HAZARDOUS WASTE CONTROL PROGRAM

COMPANY NAME	STREET	CITY & ZIP	DISTRICT
LIQUID AIR CORPORATION	8832 DICE ROAD	SANTA FE SPRINGS 90670	SE
OWNER	PERSON INTERVIEWED & TITLE	PHONE NO. (213) 945-1383	NO. EMPLOYEES
	T. J. BARBER	EMERGENCY NO.	

L.A. CO. PHL NO.	INDUSTRIAL WASTE NO.	EPA NO.
620165		

SAFETY SHOWER No
EATING AREA No
TOILET & WASHING FACILITIES ADEQUATE YES
PLANT SANITATION ADEQUATE YES

TYPE OF FACILITY & DESCRIPTION OF OPERATION/PRODUCTS:
INDUSTRIAL GASES / O_2, ACETHYLENE, N_2, AR.

PROCESS	MATERIAL	HAZARDOUS WASTE TYPE	VOL/LBS	STORAGE METHOD	DISPOSAL METHOD	MANIFEST	CONTROL	I.H. HAZARD
O_2, N_2 & AR BOTTLING				NO HAZ MAT GENERATED				(
(ACETHYLENE MANUFACTURING) CARBIDE + H_2O →	LIME CaO →	CaO Waste		PILED-UP IN BACK OF PREMISES	RECYCLED	*		
AUTO REPAIR SHOP	SOLVENT	WASTE SOLVENT		20g DRUM	SAFETY KLEEN			
	OIL	WASTE OIL		55g DRUM	*			(

NUMBER OF UNDERGROUND STORAGE TANKS: 2 tanks (6000 ft^3)
VOLUME & TYPE OF WASTE IN UNDERGROUND TANK(S):
PRIVATE DISPOSAL SYSTEMS ON PREMISES: YES ___ NO ✓

ACCESS TO STORM INLET ON PREMISES: Yes ___ No ✓
CHLORINATED HYDROCARBON USED: YES ✓ NO ___
SEWER CONNECTION ON PREMISES: YES ___ NO ✓

REMARKS: * ~~(A) NEED MANIFEST FOR RECYCLER OF CaO AND OIL~~
(B) NEED ~~LAB~~ SOIL ANALYSIS ~~FOR~~

VIOLATIONS: * (1) NEED MANIFESTS FOR CaO RECYCLER AND OIL DISPOSAL

ACTION:

SURVEY CONDUCTED BY: G. W. MOILEDA

DICE 02161

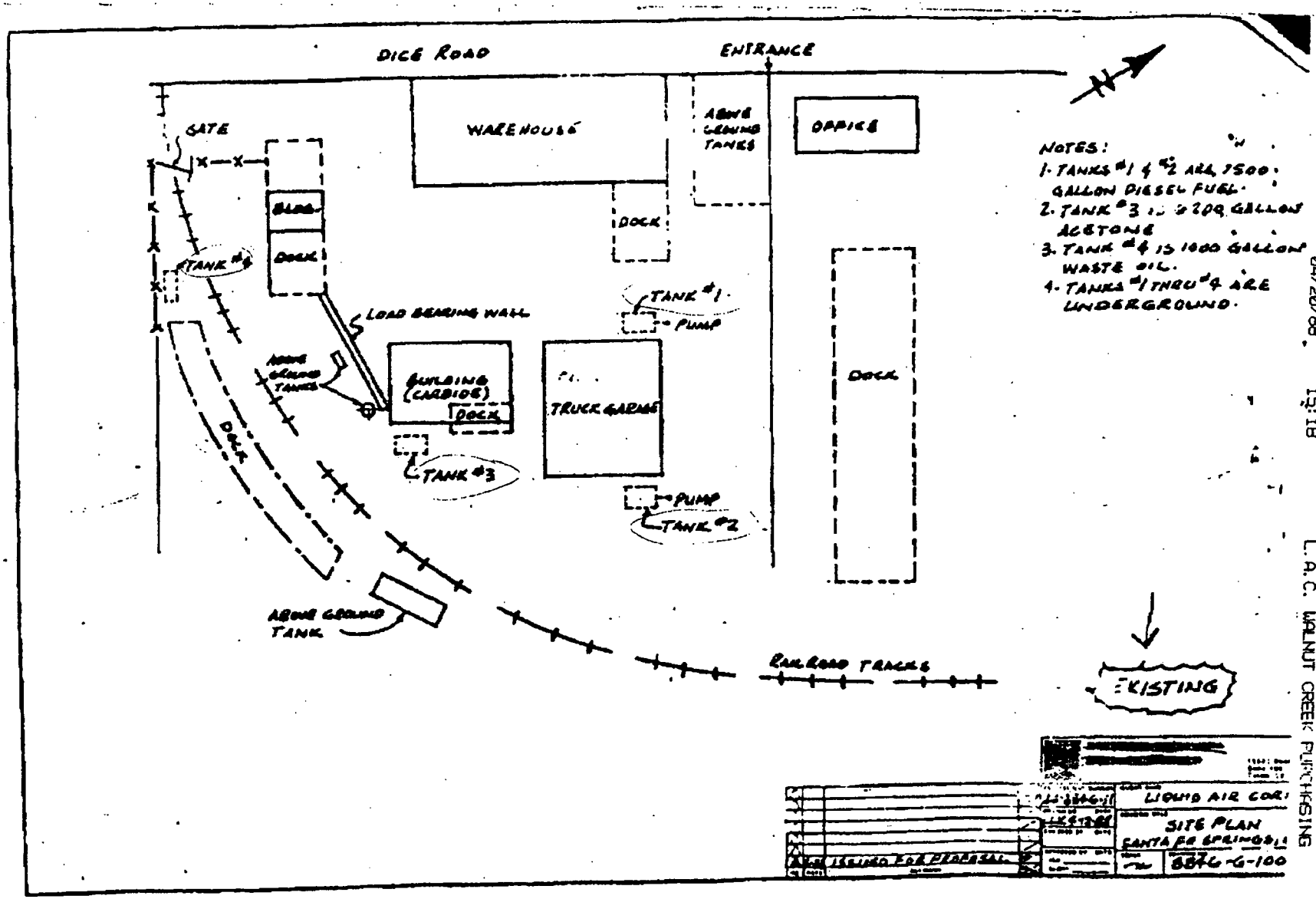
Oil —

Solvent - Safety Klean

O_2
N_2
Ar

Acethylene] [Carbide + H_2O → Acethylene + Lime

Lime - Report - lab Analysis



04/20/88 15:18 L.A.C. WALNUT CREEK PURCHASING 002

DICE 02163

Maint. Dist. 0515.75 I. File No. 225-14
City of Santa Fe Springs I.W.P. 3361

INDUSTRIAL WASTE SURVEY

Firm Name: CAL OXYGEN Co
Address: 8832 Dice Rd. Tel No. OX 8-8226
between Los Nietos Rd. and Burke St.
Contact: Name: Jack Smith Title: Plant Super
Business and Processes: Manuf. of Crygenic Gases
oxygen cylinder wash, water curtain Spray
Booth - (Recycled). Carbide sludge, stored in large sumps
rear of property, Cooling towers: bleed off to ground, (Sample taken).
Nottingham E.C. 1600 located by power room (No. side) receives floor
wash down, insignificate amounts of oil drippings & some spillage.
Sewer Connected

FLOOR TROUGHS: Size: none Screens:
FLOOR DRAINS: Size: 4" Number: 2 Ell or Tee:
Open: Covered: ✓ Screen:
(2) SA156 Location: In Cylinder wash area.

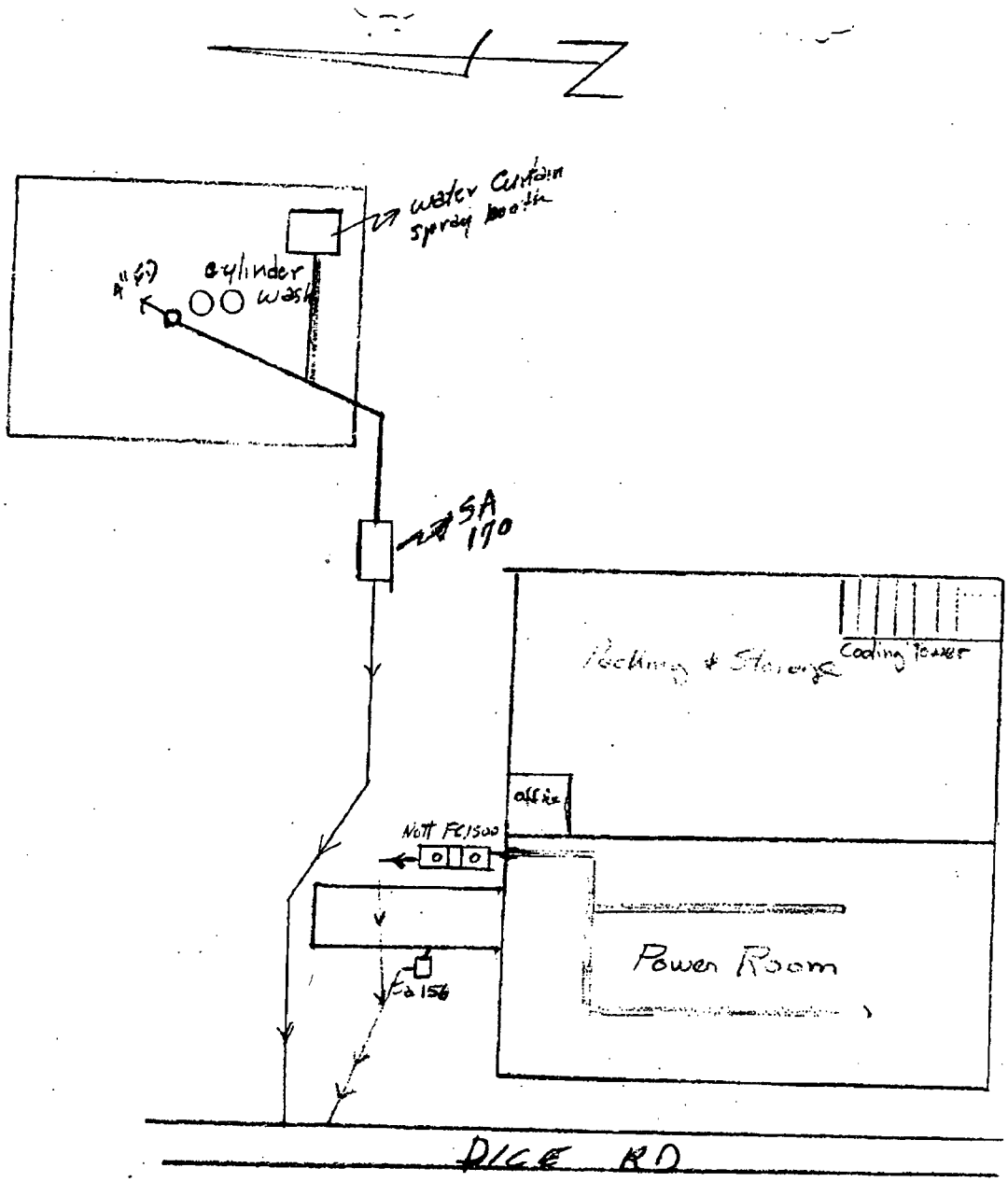
STD. TRAP: (1) SA170 G. Inter: Dairy: Other:
Size: Width (156) 2 Length: 2 Depth: 2
Width (170) 4 Length: 7 Depth: 5½
Location (SA156 - in Cylinder wash area) (SA170 - outside of Loading dock w. end) (SA156 - outside, w side of Caustic
Type and Quantity I. W.: bleed off from caustic tanks holding tanks
oxygen cylinder wash
Sq. Ft. Surface Draining to Sewer: None
Remarks and Recommendations: this is a new addition to an existing business that was just recently sewer connected, and I.W. facilities were constructed according to the plans approved by the I.W. Div. on 7-16-62
this will be put on our regular inspection schedule - NOTE the bleed off from the caustic holding tanks to the SA156 is just an emergency precaution only. All caustic waste is purchased by the Southern Calif Chemical Co. at 8851 Dice Rd.
for details of process water to SA170 see attached sheet

Region 10 205

Survey by: R. Lathey Date: 3-29-63

7615195 - CE 659 - Gdb 2-59

DICE 02165


water curtain
spray booth
cylinder
wash
SA
170
Packing + Storage
Cooling Tower
office
Nott FC1500
Power Room
Fa 156
DICE RD

GM

KG

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012

FEB 7 - 1977

RECEIVED
FEB 8 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

COUNTY ENGINEER
ACTN
FILE TO
FEB 8 11 12 AM '77
REPT
SJK JTR THA
CJF CWJ RTR

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. Bill Aldrich, Plant Manager

I-225-1H

RE: Waste Discharge Requirements (NPDES Permit No. CA0058335)

ADOPTED

Gentlemen:

Reference is made to our letter dated December 17, 1976, which transmitted a draft of tentative requirements for your disposal of cooling water and process wastes.

Pursuant to Division 7 of the Water Code of the State of California, this California Regional Water Quality Control Board, at a public hearing held on January 24, 1977, reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 77-3 (copy attached) relative to this waste discharge. This Order serves as a permit under the National Pollutant Discharge Elimination System, and expires January 10, 1982. Please note that you must file an application for a new permit at least 180 days in advance of that date.

Your attention is directed to the provision in the Monitoring and Reporting Program (copy attached) which requires you to submit a technical report to this Board no later than 30 days after receipt of this permit relative to the operation and maintenance of the waste disposal facility. You are also required to implement the monitoring program as stated in the Monitoring and Reporting Program within 60 days of the effective date of this Order. Your first monitoring report is due by January 15, 1978, for spray cooling water, and/or by the first Report Due date subsequent to commencement of discharge for acetylene production process wastes. Please reference all technical and monitoring reports to our Compliance File No. 6301.

Very truly yours,

Original signed by
Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: Environmental Protection Agency, Region IX,
Regional Administrator, ATTN: Permits Branch
United States Army Corps of Engineers
State Water Resources Control Board, Legal Div., H. Schueller
Department of Fish and Game, Region 5
Department of Health, Water Sanitation Section
Departmentof Water Resources
Los Angeles County Flood Control District
County of Los Angeles, Department of Health Services
NOAA, National Marine Fisheries Service
Los Angeles County Engineer, Project Planning and
Pollution Control Division
City of Santa Fe Springs

Enclosures

DICE 02167

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 77-3

NPDES NO. CA0058335

WASTE DISCHARGE REQUIREMENTS
FOR
LIQUID AIR INC.

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Liquid Air Inc., has filed a report of waste discharge and has applied for a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. Liquid Air Inc., operates an air separation and acetylene manufacturing facility at 8832 Dice Road, Santa Fe Springs, California, and discharges up to 170 cubic meters (45,000 gallons) per day of cooling water containing no additives through an unlined ditch adjacent to the premises to North Fork Coyote Creek which is tributary to San Gabriel River, a water of the United States, at Stearn Street, above the tidal prism. The cooling water is sprayed on the acetylene-filled cylinders while they are loaded on trucks.

   Liquid Air Inc., also proposes to discharge up to 18.9 cubic meters (5,000 gallons) per day of acetylene production process wastes to the same unlined ditch.

3. The following data for the process wastes as provided by the discharger, show concentrations of certain constituents exceeding the maximum allowable concentrations contained herein below:

Constituent	Concentration	
pH	12.2	pH units
Total dissolved solids	3,320	mg/l

4. Currently, the process wastes are hauled to a legal disposal site. Because of increasing hauling costs, the discharger proposes to treat and discharge the wastes to the ditch, if he can meet the Board's requirements. If not, the wastes will continue to be hauled.

5. The Board adopted a Water Quality Control Plan for Los Angeles River Basin on March 10, 1975. The Water Quality Control Plan contains water quality objectives for San Gabriel River and tributaries, including Coyote Creek. The requirements contained in this Order are necessary to assist in meeting these objectives.

12/16/76

DICE 02168

6. The beneficial uses of the receiving waters are: non-water contact recreation, limited warm freshwater and wildlife habitat, and (within the tidal prism) water contact recreation, industrial service supply, ocean commercial and sport fishing, preservation of rare and endangered species, marine habitat, and saline water habitat.

7. Effluent limitation standards established pursuant to Section 301 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

DICE 02169

3. The daily discharge rate shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34^{*}}{N} \sum_{1}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD)+ and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

4. The 30-day average discharge rate shall be the arithmetic average of all the values of daily discharge rate calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average rate limitation shall not be determined.

5. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.

6. The temperature of wastes discharged shall not exceed 37.8°C (100°F).

7. Wastes discharged shall not contain visible oil or grease, and shall not cause the appearance of grease, oil or oily slick, or foam in the receiving waters or on channel banks, walls, inverts or other structures.

8. Wastes discharged shall not cause the formation of sludge deposits.

9. Neither the disposal nor any handling of waste shall cause pollution or nuisance.

10. Wastes discharged shall not damage flood control structures or facilities.

11. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

12. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

---

* In metric units, constant is 86.4.

\+ In metric units, flow rate is in cubic meters per second.

DICE 02170

3. The daily discharge rate shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34^{*}}{N} \sum_{1}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD)+ and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

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9. Neither the disposal nor any handling of waste shall cause pollution or nuisance.

10. Wastes discharged shall not damage flood control structures or facilities.

11. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

12. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

---

* In metric units, constant is 86.4.

\+ In metric units, flow rate is in cubic meters per second.

13. Calcium carbide or any other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall or by the discharge of cooling water and carried off the property or discharged to surface waters.

B. Provisions

1. This Order includes the following items of the attached "Standard Provisions": 1, 2, 4, 5, 6, 7, 8, 9 and 11.

2. This Order includes the following items of the attached "Reporting Requirements": 1 and 5.

3. This Order includes the attached "General Monitoring and Reporting Provisions."

4. This Order expires on January 10, 1982, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

5. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

6. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall nntify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.

7. Any discharge of wastes at any point(s) other than specifically described in this permit is prohibited and constitutes a violation of the permit.

I, Raymond M. Hertel, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 24, 1977.

Raymond M. Hertel

RAYMOND M. HERTEL, Executive Officer

DICE 02172

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

STANDARD PROVISIONS

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

3. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic and pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Water Pollution Control Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Water Pollution Control Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.

4. The discharger shall permit the Regional Board:

   (a) Entry upon premises in which an effluent source is located or in which any required records are kept;

   (b) Access to copy any records required to be kept under terms and conditions of this Order;

   (c) Inspection of monitoring equipment or records, and

   (d) Sampling of any discharge.

5. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.

6. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

7. Collected screening, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a regional water quality control board and which is in full compliance therewith.

DICE 02173

8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

   (a) Violation of any term or condition contained in this Order;

   (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

   (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

9. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standards or prohibition) is established under Section 307(a) of the Federal Water Pollution Control Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.

10. There shall be no discharge of harmful quantities of oil or hazardous substances, as specified by regulation adopted pursuant to Section 311 of the Federal Water Pollution Control Act, or amendments thereto.

11. In the event the discharger is unable to comply with any of the conditions of this Order due to:

    (a) breakdown of waste treatment equipment;

    (b) accidents caused by human error or negligence; or

    (c) other causes such as acts of nature,

    the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

12. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resources Control Board.

DICE 02174

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

REPORTING REQUIREMENTS

1. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.

2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

   Average daily flow for the month, the date on which the instantantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

   The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

   The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b), and 13268, California Water Code).

3. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

4. The discharger shall notify the Board of (a) new introduction into such works of pollutants from a source which would be a new source as defined in Section 306 of the Federal Water Pollution Control Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States, (b) new introductions of pollutantsinto such works from a source which would be subject to Section 301 of the Federal Water Pollution Control Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted. Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

DICE 02175

5. The discharger shall file with the Board a report on waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

6. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

   Evalulate the effectiveness of present facilities and procedures and state when they became operational.

   Describe facilities and procedures needed for effective preventive and contingency plans.

   Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational. (Reference: Sections 13267(b) and 13268, California Water Code.

   This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.

8. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

DICE 02176

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

GENERAL MONITORING AND REPORTING PROVISIONS

GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health. In the event a certified laboratory is not available, analyses performed by a noncertified laboratory will be accepted until May 15, 1977, provided that the laboratory has applied for certification.

Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

GENERAL PROVISIONS FOR REPORTING

For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

DICE 02177

In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

Monitoring reports shall be signed by:

a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

b. In the case of a partnership, by a general partner;

c. In the case of a sole proprietorship, by the proprietor;

d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____ at _____.

_____(Signature)

_____(Title)"

The discharger shall mail a copy of each monitoring report to the following:

California Regional Water Quality
Control Board - Los Angeles Region
107 South Broadway, Room 4027
Los Angeles, CA 90012

ATTN: Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. 6301
FOR
LIQUID AIR INC.
(CA0058335)

A. For Spray Cooling Water

The discharger shall implement this monitoring program within 30 days of the effective date of this Order. The first monitoring report under this program is due by January 15, 1978.

Monitoring reports shall be submitted annually and must be received by the Board by January 15 of the following year.

The report shall contain the following declarations:

1. There was no change in the general character of the discharge during the year.

2. The discharge was (or was not) in compliance with the discharge requirements during the year. If the discharge was not in compliance, the report shall recap the actions taken to bring the discharge back into compliance.

3. No additives were added to the discharge during the year.

4. The average quantity of discharge, in gallons per day, per discharge day.

If at any time during the year the discharge is not in compliance with discharge requirements, a technical report must be submitted to the Board within 15 days detailing the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

B. For Acetylene Production Process Wastes

The discharger shall implement this monitoring program at the commencement of discharge. The first monitoring report under this program is due by the first Report Due date subsequent to commencement of discharge.

The discharger shall notify the Board in writing of the proposed commencement of the discharge of process wastes two weeks prior to the commencement.

Monitoring reports shall be submitted by the dates in the following schedule:

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

If no flow occurred during the quarter the report shall so state.

DICE 02179

Effluent Monitoring

A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. The following shall constitute the effluent monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
pH	pH units	grab	monthly
Temperature	°F or °C	grab	annually
Total waste flow	gal/day	----	monthly
Suspended solids	mg/l	grab	monthly
Settleable solids	ml/l	grab	monthly
Total dissolved solids	mg/l	grab	weekly

The October - December quarterly report shall include the results of the annual analysis.

For parameters where both 30-day average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply. Initially, beginning not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once that compliance has been demonstrated, sampling and analyses shall revert to the frequency specified in the table above. However, if future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

C. Operation and Maintenance Report

The discharger shall file a technical report with this Board not later than 30 days after receipt of this permit, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall include, as a minimum, the following:

a. The name and address of the person or company responsible for operation and maintenance of the facility.
b. Type of maintenance (preventive or corrective).
c. Frequency of maintenance, if preventive.

Ordered by Raymond M. Hertel
Executive Officer

JAN 24 1977
Date

T-2

COUNTY OF LOS ANGELES FIRE DEPARTMENT
HEALTH HAZARDOUS MATERIALS DIVISION
SPECIAL OPERATIONS INVESTIGATIONS UNIT

PROSECUTION SUMMARY

DBA: LIQUID AIR CORPORATION
ADDRESS: 8832 DICE ROAD
CITY: SANTA FE SPRINGS ZIP: 90670

DATE: 02 / 27 / 97
CASE #: BA089776
LOG #: 930201

INVESTIGATING OFFICERS: MARTY KASMAN
JIM MCCARRON

PD: [ ]

DEFENDANT(s) 1: LIQUID AIR INC.
2: BRYAN LEGER, MGR
3: ADVANCO INC.
4:

****

H&S CODE SEC. VIOLATED: [X] 25189.5(b) [ ] 25190 [ ] 25191 P.C. 374.8

VIOLATION: ILLEGAL DISCHARGE OF MORE THAN 15,000 GALLONS OF CORROSIVE HAZARDOUS WASTE INTO COYOTE CREEK.

****

DATE ADJUDICATED: 07 / 31 / 96 JUDGE: RODNEY NELSON
PLEA: [3] 1. Guilty 2. Not Guilty COURT: DEPT 115
VERDICT: [ ] 3. Nolo Contendre DA/EA: ROB MILLER
CRIMINAL CHARGES DROPPED, CASE HANDLED CIVILLY

****

JUDGEMENT TOTAL: $ 25,000.00 LADHS AGENCY COST: $ 6,000.00
TOTAL FINES: $ -00- PERCENTAGE OF FINE: $ -00-
PENALTIES: $ 4,500.00 OTHER AGENCY COST: $ 6,000.00 FISH & GAME
PD SPLIT: $

JAIL: ___ days ___ months ___ years [ ] 1. County 2. State 3. Federal
PROBATION: ___ days ___ months ___ years [ ] 1. Formal 2. Summary
SPECIAL CONDITIONS: $8,500.00 TO FUND AN INDUSTRY EDUCATION PAMPHLET TO BE DISTRIBUTED TO THE CONSTRUCTION INDUSTRY.

Initials: Inv. Off. ____ Date: / /
Supervisor [signature] Date: 2/27/97

HMCP (3/89)

CLOSING MEMORANDUM

To: RICHARD SULLIVAN, Head Deputy
Environmental Crimes/OSHA Division

From: Robert Miller,
Deputy District Attorney

Subj.: P. v. Liquid Air Corporation, Bryan Leger and Advanco,
Case No. BA089776

Date: June 31 , 1996

This case arose from a January 1993 spill of calcium hydroxide-laden water into the storm channel outside the Santa Fe Springs plant of Liquid Air Corp., an acetylene manufacturer. Heavy rains had caused the water to collect in the open pits where the company stored calcium hydroxide (a.k.a. lime), a byproduct of the acetylene manufacturing process. The company decided to pump the excess water into the storm drain which led to Coyote Creek. Investigators noticed the milky colored effluent, traced it to the Liquid Air plant and told the company to cease pumping, sandbag the storm drain entry and initiate clean up of the storm channel and the stream bed. The company did so, but a few days later some negligent act (the company says one of their backhoe drivers dislodged some of the sandbags) caused an additional spill into the storm channel the the company was in the process of cleaning up.

The case was filed by Erica Martin on January 20, 1994, charging Liquid Air, Bryan Leger (a manager), Advanco, (the pump company), and two Advanco employees with two felony counts each of Hazardous Waste Disposal (H&S §25189.5), Polluting Navigable Waters (Water Code §13387), and Discharging a Hazardous Substance into State Waters (P.C. §374.8). The preliminary hearing was done by Tony Patchett during thirteen court days spread over a twenty month period ending in February 1996. Before the close of the prelim., we dismissed all charges against the individual employees of Advanco as well as the charges relating to the second incident against the Advanco company itself. The remaining defendants were held to answer.

A §995 motion was noticed by the Defendants and a hearing was set for July 11, 1996. Extensive briefs were submitted by both sides. Prior to the 995 hearing, I entered into settlement negotiations with the Defendants. In light of obvious problems of proof (see discussion below) I eventually agreed to the defense request to settle the case through the filing of a related civil suit and consent judgement. Under the terms of this settlement, the Defendants were to conform to certain injunctive conditions and pay a combined total of $125,000 in civil penalties and restitution, $80,000 from Liquid

Air and $45,000 from Advanco. This disposition was approved by Head Deputy Richard Sullivan.

On July 10, 1996 we informed the Court that the parties intended to settle rather than litigate the 995 motion. Nevertheless, the next day -- the day originally set for the 995 -- the Court (Judge Rodney Nelson) issued a written, tentative ruling on the 995 motion. The tentative ruling would grant the motion to dismiss as to all counts and all defendants. In view of the Court's tentative opinion, the Defendants politely declined to proceed with the proposed settlement. All parties requested a brief continuance to re-evaluate their positions. The People's options were to, (1) appeal the dismissal, (2) refile the case, or (3) attempt to renegotiate a settlement.

Given the extensive grounds cited by Judge Nelson in his tentative opinion, there seemed to be a possibility of prevailing on appeal only as to the P.C. §374.8 counts. Since this charge carries a $10,000 maximum fine, settlement still seemed the preferable alternative. Renewed disposition negotiations resulted in a proposed disposition which was approved in principle by the Court on July 16, 1996. The necessary documents were filed and the disposition was finalized on the record on July 31, 1996 in Department 115. Terms of the disposition are as follows:

The People filed a Civil Complaint against Liquid Air and Advanco (but not against Bryan Leger) alleging violations of Water Code §13350.

Simultaneously, both sides filed a Consent Judgement and Stipulation whereby both corporations agreed to pay a total of $25,000 in civil fines, restitution and contributions, and to be permanently enjoined from any violations of Water Code §13350, and to waive any appeal rights.

All payments are to be made within 30 days. The money distribution is:

Liquid Air
- $2,500 civil penalties to the D.A.'s Office
- $5,000 reimbursement to the Fish & Game Department
- $5,000 reimbursement to the LACO Fire Dept. Haz/Mat Division;

Advanco
- $2,000 civil penalties to the D.A.'s Office
- $1,000 reimbursement to the Fish & Game Department
- $1,000 reimbursement to the LACO Fire Dept. Haz/Mat Division.
- $8,500 to fund an industry education pamphlet mail-out to construction companies.

The People moved to dismiss the criminal case under P.C. §1385. This disposition was approved by Head Deputy Sullivan.

Judge Nelson's tentative opinion and the resulting disposition in this case did not come as a complete surprise. After reading the prelim. transcript, discussing the matter with Dr. Steve Carr and writing the 995 reply brief, I summarized the problems of proof as follows:

The People's original theory in this case, rested on the propositions that the lime effluent was hazardous because it had a pH above 12.5 and that dumping the effluent was also prohibited by Liquid Air's stormwater discharge permit. Dr. Carr would be our primary expert witness in a trial of this case. His opinions as to the pH issues are:

(1) A total of 13 samples were gathered by two different agencies and tested by three different labs for pH, each using a different technique. Three of the samples tested over 12.5 pH (the "hazardous waste" threshhold): 12.98, 13.00, and 13.25. Carr's lab retested the three high samples and each tested lower on the retest, but two of them remained above 12.5 pH. The lower results do raise the threshhold issue of lab flaws and variability of measurement among different labs.

(2) The statutory definition for "corrosive" requires that pH be measured by a specified EPA testing technique. This technique was not employed by any of the labs. While the techniques employed adequate lab procedure, there is almost always a "background noise" of variability in lab results.

(3) There is no good theory that explains the three pH readings over 12.5. Lime, by definition, has a pH of 12.45 or less. The combination of rain water and lime -- two non-hazardous wastes -- should not create a hazardous waste with a pH in excess of 12.5....unless there was a third contaminating agent with a very high pH. However, the most likely contaminants, sodium or potassium, would show up in the samples. They do not. In the absence of a more plausible theory, there is an even chance that the high readings were due to labratory measurement error.

In short, if a jury believed and accepted Dr. Carr's testimony and adopted his opinion entirely as their own, they could not conclude that the pH of the discharged liquid was at or above 12.5 beyond a reasonable doubt. In light of this, I do not believe that we can ethically procede on this theory as to the hazardous waste disposal counts.

Finally, there were some other factors to consider in evaluating the case:

(1) The company, in the course of its preparations to convert its lime pits into a parking lot, received opinions from the U.S. EPA and DTSC that the contents of the pits was not hazardous. There is no evidence that they actually believed that the liquid they were pumping into the storm drain was a hazardous waste.

(2) Though the pH test results should not be excluded at trial, the jury will be instructed that they can discount the weight they accord to those tests if they think the testing technique deviated from the required method.

(3) As to the Water Code charges: the stormwater discharge permit system is extremely convoluted and ambiguous. The Court of Appeal has recently sided with General Motors in an LA County case where the company discharged a similar pollutant, then sought the protection of their ambiguous and confusing stormwater discharge permit.

Background History for Courtroom Testimony

MARTIN A. KASMAN

I. EXPERIENCE AND ASSIGNMENTS

Employed as a Deputy Health Officer by the County of Los Angeles Fire Department

Assignment: Hazardous Materials Specialist II
Los Angeles County Fire Department
5825 Rickenbacker Rd.
Health Hazardous Materials Division
7/1/91 to Present

Prior: Hazardous Materials Specialist II
Los Angeles County Health Department
2615 S. Grand Ave. #607
Hazardous Materials Control Program
2/1/86 to 7/1/91

Duties include: (1) the enforcement of the Hazardous Waste Control Law (Health and Safety, California Code of Regulations); (2) investigation of violations of the Hazardous Waste Control Law; (3) assessment and mitigation of hazardous waste disposal sites; and (4) emergency response to chemical spills and illegal disposal of hazardous wastes.

Received training in sampling techniques and evidence procurement. While assigned to an emergency response team, he received training and became experienced in the use of various instruments used in detecting and identifying hazardous substances.

Investigated over 150 cases involving the illegal handling, disposal, storage and transportation of hazardous wastes and has inspected in excess of 500 businesses generating hazardous wastes as well as responded to over one hundred 200 chemical emergencies including, hazardous chemical spills and toxic chemical fires. These business inspections involved the review of the plant operations, in particular, the manner in which hazardous materials or hazardous wastes are handled, disposed and stored. In addition, the inspection of these businesses included a review of their business records regarding the types of chemicals and processes used at the facility as well as emergency contingency plans implemented for potential hazardous material or waste spills.

Participated and assisted in the preparation and execution of the least three dozen felony search warrants for evidence of alleged illegal disposal and storage activities at hazardous waste generation and storage sites and facilities. During the execution of said warrants, his duties included the identification and collection of hazardous waste samples, as well as conducting a survey to determine the types of hazardous materials handled, stored or treated on the site. He has also participated in the site assessment and decontamination operations at over two dozen hazardous waste disposal sites.

Assignment: Sanitarian
Los Angeles County DHS
2615 S. Grand Ave. #6120
Los Angeles, CA 90007
Northeast District Environmental Services
2/27/84 to 1/31/86

Duties included the enforcement of California Health and Safety Codes pertaining to the food industry, housing, and general sanitation.

II. EDUCATION

Master of Science degree from California State University, Northridge in Health Science (Environmental and Occupational Health) May 1988.

Bachelor of Science degree from California State University, Northridge in Health Science (Environmental and Occupational Health) May 1983.

Certified Hazardous Materials Manager
University of California at Los Angeles, December 1989.

III. SUPPLEMENTAL CERTIFICATES

State of California Registered Environmental Assessor
State of California Registered Environmental Health Specialist
Dept. of Health Services Licensed Water Treatment Operator

IV. RELATED TEACHING EXPERIENCES

University of California, Los Angeles
California State University, Northridge
College of the Canyons, Valencia
West Los Angeles Community College
California Specialized Training Institute
LA County Fire Department Training Academy
LA County Health Department Sanitarian Trainee Haz-Mat Introduction

V. PROFESSIONAL ASSOCIATIONS

California Hazardous Materials Investigators Association
- Secretary (1992-1993)
- President (1991-1992)
- Vice-President (1990-1991)
- Southern Region Director (1988-1990)

1989 Annual Training Conference Chairman

VI. TRAINING COURSES ATTENDED

1984 CEHA Symposium, San Diego
1984 CEHA Update, Orange County
1985 CEHA Symposium, Ventura
1985 CEHA Update, San Diego
1986 CEHA Symposium, Santa Rosa
1986 CEHA Update, Pasadena
1987 CEHA Conference, San Diego
Hazmacon '86 - 4/29/86
CAL OSHA Respirator Training - 3/5/86
DOT/CHP Enforcement Training - 6/24/86
Los Angeles County Triad Training - 4/9/86
Los Angeles County Triad Training - 8/21/86
First Responder Training, Fire HQ - 4/21-24/87
District Attorney Court Room Training - 8/17/87
Hazard Appraisal and Recognition Planning - 1/19-21/88
Hazmacon '88 - 4/5/88
CHMIA Conference, San Luis Obispo 4/13-15/88
Incident Mitigation and Treatment Methods, CSTI 7/11-15/88
Radio Training - 7/20/88
First Responder Training, UCLA - 7/25-29/88
CHMIA Conference, Shell Beach - April 1989
Medical Management of Hazardous Materials Incidents, Newport Beach - 5/19/89
Federal Law Enforcement Training Center, Glynco Georgia - August 1989
Chevron Safety Train - 1989
CHMIA Conference, Shell Beach - 4/4-4/7/90

DICE 02187

State of California—Health and Welfare Agency

Department of Health Services

COMPLAINT REPORT FORM

CONFIDENTIAL

Is this an emergency? Yes ☐ No ☑ If yes, call the Office of Emergency Services (OES): 800-852-7550

Log Number: 31200066 Date Complaint Received: 12/19/90 Time: ____ Received by: G. Herm Lz

Has a Proposition 65 notification been made? ☐ Yes ☐ No

INFORMANT	ALLEGED RESPONSIBLE PARTY
Name: Leigh de Sant	Name: Liquid Air
Address: Environmental Director	Firm: 8832 Dice Road
City: City of Santa Fe Springs	Address:
Phone: (213) 868-0511 X288	City: Santa Fe Springs
☐ Confidential OR ☐ Anonymous (Check one.)	County Code*: 19 Phone: ( )

COMPLAINT DATA

Date of Incident: 12-19-90 3:30 p.m. Allegation Code*: D Quantity: ____

Type/Condition of Containers Visible: ____

Source of Complaint/Code*: D If Code A, Specify: ____

Response Code*: R Region/Agency Referred To: L.A. County

Other Comments: The ARP was Digging out Sludge From one pit and putting it into another. The pH was 12.5, taken by Ms. Leigh de Santis.

L.A. County has notified at 3.50 p.m. ON 12/19/90

Response Date: 12/27/90 Investigator: L.A. County

Note: Information to be transferred to complaint log is highlighted in bold print. Attach an addendum if necessary.

* See code on reverse side.

Original—Regional Office Duplicate—Log Triplicate—Investigations

DHS 8231 (8/89)

DICE 02188

CALIFORNIA COUNTY CODE NUMBERS*

Code Number	County	TSCD Section	Code Number	County	TSCD Section
1	Alameda	Region 2	30	Orange	Region 4
2	Alpine	Region 1	31	Placer	Region 1
3	Amador	Region 1	32	Plumas	Region 1
4	Butte	Region 1	33	Riverside	Region 4
5	Calaveras	Region 1	34	Sacramento	Region 1
6	Colusa	Region 1	35	San Benito	Region 2
7	Contra Costa	Region 2	36	San Bernardino	Region 4
8	Del Norte	Region 2	37	San Diego	Region 4
9	El Dorado	Region 1	38	San Francisco	Region 2
10	Fresno	Region 1-F	39	San Joaquin	Region 1
11	Glenn	Region 1	40	San Luis Obispo	Region 1-F
12	Humboldt	Region 2	41	San Mateo	Region 2
13	Imperial	Region 4	42	Santa Barbara	Region 3
14	Inyo	Region 1-F	43	Santa Clara	Region 2
15	Kern	Region 1-F	44	Santa Cruz	Region 2
16	Kings	Region 1-F	45	Shasta	Region 1
17	Lake	Region 1	46	Sierra	Region 1
18	Lassen	Region 1	47	Siskiyou	Region 1
19	Los Angeles	Region 3/Region 4	48	Solano	Region 2
20	Madera	Region 1-F	49	Sonoma	Region 2
21	Marin	Region 2	50	Stanislaus	Region 1
22	Mariposa	Region 1-F	51	Sutter	Region 1
23	Mendocino	Region 2	52	Tehama	Region 1
24	Merced	Region 1-F	53	Trinity	Region 1
25	Modoc	Region 1	54	Tulare	Region 1-F
26	Mono	Region 1	55	Tuolumne	Region 1
27	Monterey	Region 2	56	Ventura	Region 3
28	Napa	Region 2	57	Yolo	Region 1
29	Nevada	Region 1	58	Yuba	Region 1

LEGEND

ALLEGATION CODES

- A Disposal to a sanitary sewer system
- B Disposal during transportation
- C Disposal to a surface water, including storm drains
- D Disposal onto ground
- E Illegal storage
- F Unpermitted treatment
- G Illegal transportation
- H Buried hazardous waste
- I Leaking underground tanks (Refer to local Environmental Health Department.)
- J Abandoned hazardous waste
- K Air emissions (Refer to local Air Pollution Control District.)
- L Other

SOURCE OF COMPLAINT CODES

- H Hotline call
- D Direct public contact (phone, walk-in, mail)
- A Referred from another agency
- O Referred from Headquarters or other TSCD region

RESPONSE CODES

- I Investigated
- L Letter sent
- R Referred

TSCD SECTION CODES

- Region 1 Sacramento Regional Office
- Region 1-F Fresno District Office
- Region 2 Emeryville Regional Office
- Region 3 Burbank Regional Office
- Region 4 Long Beach Regional Office

* County code designations by the California Department of Motor Vehicles

DHS 8231 (8/89)

FIRE DEPARTMENT OF THE CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION • (213) 944-9713
11300 GREENSTONE AVE. • SANTA FE SPRINGS 90670-4619

TELECOPY MESSAGE

To: Jim Nishida
LA CO Hlth Dept. HAZ MAT CONTROL
RM 607
213 ~~[illegible]~~ 7469299
FAX NUMBER

No. of Pages: 4
(including this cover page)

From: Dave Kluk

Date: 1/11/91

COMMENTS:

Results for Liquid Air
8832 Dice

pls confirm results & applic.
to Title 22 Haz. Waste
Thanks, Dave

COPY TO FOLLOW IN THE MAIL: ( ) Yes (✓) No

IF YOU HAVE TROUBLE RECEIVING THIS INFORMATION, OR YOU DID NOT RECEIVE THE SPECIFIED NUMBER OF PAGES SHOWN ABOVE, PLEASE CALL (213) 944-9713

FAX NO. (213) 941-1817

WCAS
WEST COAST ANALYTICAL SERVICE, INC.
ANALYTICAL CHEMISTS

December 31, 1990

JOHN L. HUNTER & ASSOCIATES
13310 Firestone Blvd., Suite A-2
Santa Fe Springs, CA 90670

Attn: John L. Hunter

JOB NO. 17412

LABORATORY REPORT

Samples Received: Three (3) soil samples and one (1) water
Date Received: 12-18-90
Date Released for Analysis: 12-19-90
Purchase Order No: Project Name: Santa Fe Springs

The samples were analyzed as follows:

Samples Analyzed	Analysis	Results
Two (2) soils and one (1) water	Alkalinity by SM 403	Tables 1 & 2
Two (2) soils and one (1) water	pH by EPA 150.1/9040	Table 3
One (1) soil and one (1) water	Volatile Organics by EPA 8260/624	Data Sheets
One (1) soil and one (1) water	Surrogate Percent Recoveries for EPA 8260/624	Data Sheets
Three (3) soils and one (1) water	CAM (17) Metals by ICPMS1	Data Sheets

B. Michael Hovanec
Senior Staff Chemist

D. J. Northington, Ph.D.
President

9840 Alburtis Avenue • Santa Fe Springs, California 90670 • 213/948-2225 • FAX 213/948-5890

WEST COAST ANALYTICAL SERVICE, INC.

JOHN L. HUNTER & ASSOCIATES
Mr. John L. Hunter

Job # 17412
December 31, 1990

LABORATORY REPORT

TABLE 1

Parts Per Million (mg/Kg)

Sample ID	Total Alkalinity by SM 403
1A	510000
2A	320000
Detection Limit	1000

Date Analyzed: 12-27-90

TABLE 2

Parts Per Million (mg/L)

Sample ID	Total Alkalinity by SM 403
W-A	300000
Detection Limit	10000

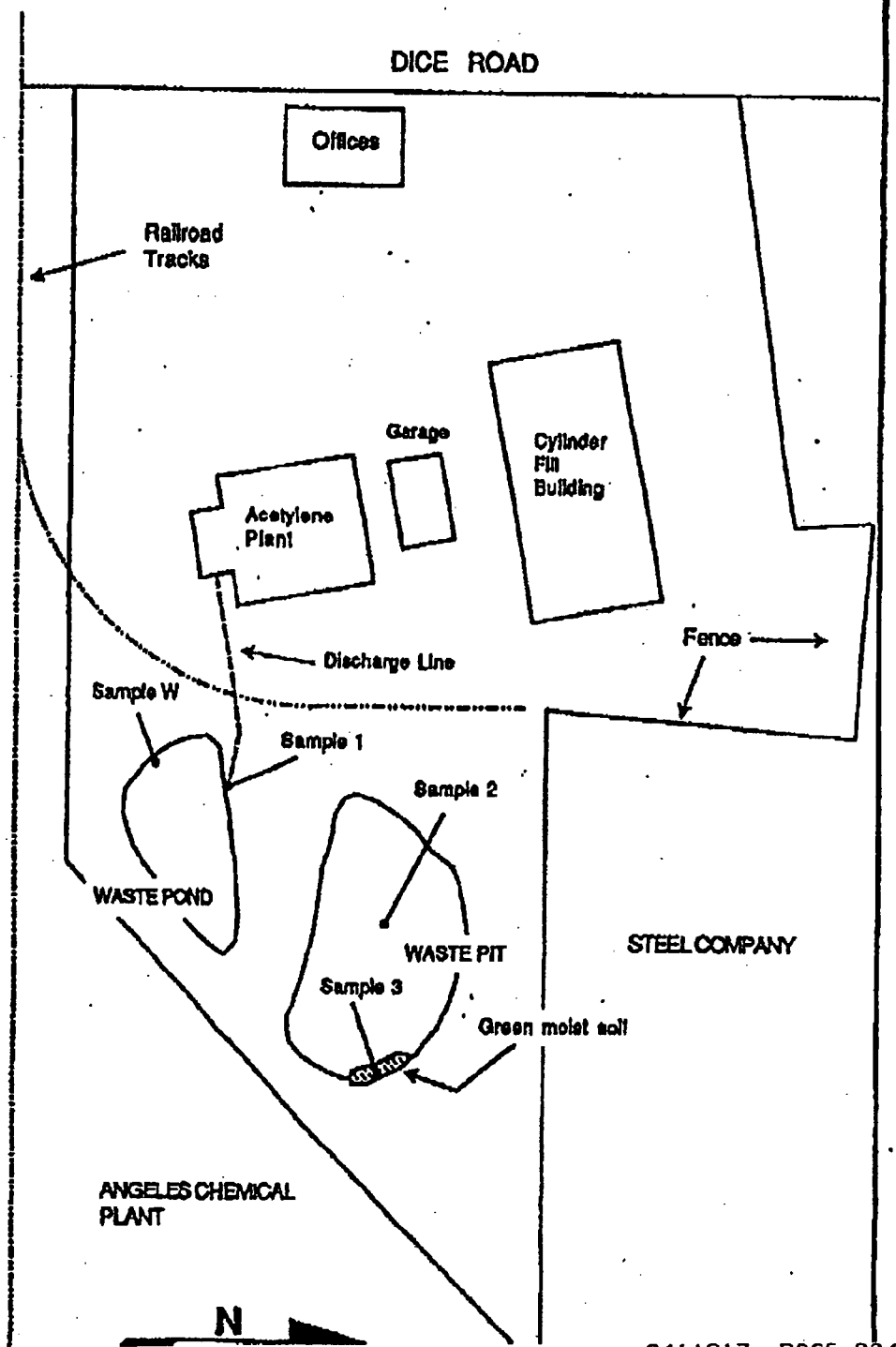
Date Analyzed: 12-27-90

TABLE 3

Sample ID	pH (Units) by EPA 150.1/9040
1A	12.8
2A	12.9
W-A	12.7

Date Analyzed: 12-20-90

INVESTIGATION WORKSHEET	FIRM NAME Liquid Air	PAGE2 OF 2
	ADDRESS 8832 Dice, Santa Fe Springs, CA	12/17/90



SANTA FE SPRINGS
FIRE DEPARTMENT
11300 Greenstone Ave
Santa Fe Springs, CA 90670
(213) 944-9713

LETTER OF TRANSMITTAL

DATE 1/28/91
JOB NO.
ATTENTION Erlinda
RE: LIQUID AIR

TO: L.A. Co. Health

213 746-9299

We are sending you by: ☐ U.S. Mail ☐ Via Carrier ☒ FAX

No. of Pages: 10 including this Sheet

☐ Site Assessment ☐ Preminary Draft ☐ Final Report
☐ Extra Report ☐ Plans ☐ Copy of Permit
☐ Samples ☐ Copy of Letter ☐ Other

COPIES	DATE	NO.	DESCRIPTION
1			LAB RESULTS

TRANSMITTED

☐ For review ☒ As requested ☐ Returned for correction

☐ Other

REMARKS

Copies to:

By: JOHN HUNTER

WEST COAST ANALYTICAL SERVICE, INC.

JOHN L. HUNTER & ASSOCIATES
Mr. John L. Hunter

Job # 17412
December 31, 1990

LABORATORY REPORT

TABLE 1

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TABLE 2

Parts Per Million (mg/L)

Sample ID	Total Alkalinity by SM 403
W-A	300000
Detection Limit	10000

Date Analyzed: 12-27-90

TABLE 3

Sample ID	pH (Units) by EPA 150.1/9040
1A	12.8
2A	12.9
W-A	12.7

Date Analyzed: 12-20-90

Client: John L. Hunter & Assoc. Sample: 1A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
241

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.08	0.07	50	500
Barium	20.4	0.2	1000	10000
Beryllium	0.62	0.07	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.2	0.2	5600/50	2500/500
Cobalt	0.98	0.02	800	8000
Copper	9	0.2	250	2500
Lead	2.69	0.1	50	1000
Mercury	ND<0.06	0.06	2	20
Molybdenum	0.14	0.03	3500	3500
Nickel	ND<8	8	200	2000
Selenium	0.4	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	7.92	0.05	240	2400
Zinc	6.3	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 2A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
251

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.2	0.07	50	500
Barium	29.7	0.2	1000	10000
Beryllium	0.49	0.06	7.5	75
Cadmium	0.04	0.02	10	100
Chromium (III/VI)	6.4	0.2	5600/50	2500/500
Cobalt	2.38	0.02	800	8000
Copper	5.4	0.2	250	2500
Lead	3.36	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.41	0.03	3500	3500
Nickel	37	10	200	2000
Selenium	0.7	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	43.4	0.05	240	2400
Zinc	7.4	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 3A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
261

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.74	0.06	50	500
Barium	25.8	0.2	1000	10000
Beryllium	0.16	0.06	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.6	0.2	5600/50	2500/500
Cobalt	1.11	0.02	800	8000
Copper	5.7	0.2	250	2500
Lead	0.57	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.1	0.03	3500	3500
Nickel	6	5	200	2000
Selenium	ND<0.3	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	5.85	0.05	240	2400
Zinc	5.5	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc.
Job Number: 17412
Date Analyzed: 12-26-90

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry

Parts Per Million (mg/L)

	W-A	Blank DL
Beryllium	ND<0.003	0.003
Vanadium	ND<0.003	0.003
Chromium	ND<0.007	0.007
Cobalt	0.002	0.001
Nickel	ND<0.04	0.04
Copper	0.007	0.003
Zinc	0.66	0.02
Arsenic	0.001	0.001
Selenium	0.04	0.04
Molybdenum	ND<0.002	0.002
Silver	ND<0.001	0.001
Cadmium	ND<0.001	0.001
Antimony	ND<0.003	0.003
Barium	5.49	0.003
Mercury	ND<0.002	0.002
Thallium	ND<0.001	0.001
Lead	ND<0.003	0.003

ND-Not Detected. The detection limit (DL) is stated above.
Because of sample interferences, Sample DLs may differ from Blank DLs.

WCAS

CLIENT: JOHN L. HUNTER
WCAS JOB #: 17412

SAMPLE: 3A

DATE RECEIVED: 12/18/90
DATE EXTRACTED: 12/27/90
DATE ANALYZED: 12/27/90

RUN NUMBER: 17412V6
SAMPLE AMOUNT: 1.0G
MATRIX: SOLID

VOLATILE ORGANICS (EPA 624/8260)

UNITS: UG/KG (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	180.	30.
71-43-2	BENZENE	ND	5.
75-27-2	BROMODICHLOROMETHANE	ND	5.
75-25-2	BROMOFORM	ND	5.
74-83-9	BROMOMETHANE	ND	30.
78-93-3	2-BUTANONE (MEK)	ND	30.
75-15-0	CARBON DISULFIDE	6.	5.
56-23-5	CARBON TETRACHLORIDE	ND	5.
108-90-7	CHLOROBENZENE	ND	5.
75-00-3	CHLOROETHANE	ND	30.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	50.
67-66-3	CHLOROFORM	ND	5.
74-87-3	CHLOROMETHANE	ND	30.
108-41-8	CHLOROTOLUENE	ND	5.
124-48-1	DIBROMOCHLOROMETHANE	ND	5.
95-50-1	1,2-DICHLOROBENZENE	ND	5.
541-73-1	1,3-DICHLOROBENZENE	ND	5.
106-46-7	1,4-DICHLOROBENZENE	ND	5.
75-34-3	1,1-DICHLOROETHANE	ND	5.
107-06-2	1,2-DICHLOROETHANE	ND	5.
75-35-4	1,1-DICHLOROETHYLENE	ND	5.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	5.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	5.
78-87-5	1,2-DICHLOROPROPANE	ND	5.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.
100-41-4	ETHYLBENZENE	ND	5.
106-93-4	ETHYLENE DIBROMIDE	ND	5.
76-13-1	FREON-TF	ND	5.
119-78-6	2-HEXANONE	ND	30.
75-09-2	METHYLENE CHLORIDE	ND	30.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	30.
100-42-5	STYRENE	ND	5.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.
127-18-4	TETRACHLOROETHYLENE	ND	5.
109-99-9	TETRAHYDROFURAN	ND	30.
108-88-3	TOLUENE	ND	5.
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.
79-01-6	TRICHLOROETHYLENE	ND	5.
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.
108-05-4	VINYL ACETATE	ND	30.
75-01-4	VINYL CHLORIDE	ND	30.
95-47-6	TOTAL XYLENES	ND	5.

WCAS

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT: JOHN L. HUNTER SAMPLE: 3A
WCAS JOB #: 17412

UNITS: UG/KG (PPB)

	COMPOUND NAME	FRACTION	APPROXIMATE CONCENTRATION
1	UNIDENTIFIED COMPOUND	VOA	40.

CLIENT: JOHN L. HUNTER SAMPLE: W-A
WCAS JOB #: 17412

DATE RECEIVED: 12/18/90 RUN NUMBER: 17412V7
DATE EXTRACTED: 12/27/90 SAMPLE AMOUNT: 5ML
DATE ANALYZED: 12/27/90 MATRIX: WATER

VOLATILE ORGANICS (EPA 624/8260) UNITS: UG/L (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	220.	5.
71-43-2	BENZENE	ND	1.
75-27-2	BROMODICHLOROMETHANE	ND	1.
75-25-2	BROMOFORM	ND	1.
74-83-9	BROMOMETHANE	ND	5.
78-93-3	2-BUTANONE (MEK)	15.	5.
75-15-0	CARBON DISULFIDE	ND	1.
56-23-5	CARBON TETRACHLORIDE	ND	1.
108-90-7	CHLOROBENZENE	ND	1.
75-00-3	CHLOROETHANE	ND	5.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	10.
67-66-3	CHLOROFORM	ND	1.
74-87-3	CHLOROMETHANE	ND	5.
108-41-8	CHLOROTOLUENE	ND	1.
124-48-1	DIBROMOCHLOROMETHANE	ND	1.
95-50-1	1,2-DICHLOROBENZENE	ND	1.
541-73-1	1,3-DICHLOROBENZENE	ND	1.
106-46-7	1,4-DICHLOROBENZENE	ND	1.
75-34-3	1,1-DICHLOROETHANE	ND	1.
107-06-2	1,2-DICHLOROETHANE	ND	1.
75-35-4	1,1-DICHLOROETHYLENE	ND	1.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	1.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	1.
78-87-5	1,2-DICHLOROPROPANE	ND	1.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	1.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	1.
100-41-4	ETHYLBENZENE	ND	1.
106-93-4	ETHYLENE DIBROMIDE	ND	1.
76-13-1	FREON-TF	ND	1.
119-78-6	2-HEXANONE	ND	5.
75-09-2	METHYLENE CHLORIDE	ND	7.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	5.
100-42-5	STYRENE	ND	1.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	1.
127-18-4	TETRACHLOROETHYLENE	ND	1.
109-99-9	TETRAHYDROFURAN	ND	5.
108-88-3	TOLUENE	ND	1.
71-55-6	1,1,1-TRICHLOROETHANE	2.	1.
79-00-5	1,1,2-TRICHLOROETHANE	ND	1.
79-01-6	TRICHLOROETHYLENE	ND	1.
75-69-4	TRICHLOROFLUOROMETHANE	ND	1.
108-05-4	VINYL ACETATE	ND	5.
75-01-4	VINYL CHLORIDE	ND	5.
95-47-6	TOTAL XYLENES	ND	1.

WCAS

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT: JOHN L. HUNTER SAMPLE: W-A
WCAS JOB #: 17412

UNITS: UG/L (PPB)

	COMPOUND NAME	FRACTION	APPROXIMATE CONCENTRATION
1	UNIDENTIFIED COMPOUND	VOA	20.

WCAS

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
910162	01/18/91	01/18/91

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
211	Brougher 057	Domingo 036	14:00	01/18/91	15:00

Time Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
12:15	:	F64	KLUNK DAVE CAPT	213-944-9713

Site Name	Location
CATCH BASIN	08832 DICE RD SFS 90670

Complaint
2 to 5 gallons of waste oil dumped into storm drain on railroad property.

Incident Grade: Very severe

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
064 F64		N	Z99	BROUGHER

(1) Chemical or Trade Name	Hazard	Physical State Stored	Physical State Released
PETROLEUM PRODUCT	C	o Solid ● Liquid o Gas	o Solid ● Liquid o Gas

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
3.000 o lbs ● gal o cu ft	■ soil □ pavement □ air □ water □ other		C	P	5.000 o lbs ● gal o cu ft

Container	# of Containers	Additional Information
o fixed ● mobile	1	2 to 3 gals of product was dumping on soil in storm channel. A small amount of oil was evident in the water. The representative for the city stated that they would clean-up the oil contaminated soil, as well as remove.... [more on file]

Release Factors		HMCP Actions (✓)	Other Agency Actions (×)	Board Memo Issued
✓ Intentional Act	Fire	Establish Safe Area	Contact Agencies	Take Samples
Suspicious Act	Explosion	HazCat	✓ Investigate	No Action Taken
Abandoned	Spill	Evacuation	Call Clean Up Co.	NOV Issued
Mechanical Failure	Unknown	Contact PRP	Remove Hazard	Hearing Issued
Collision/Overturn	No Release	Contact OES	Provide Public Info	PHL Issued
Other		Contact EPA	Contact DoHS	Road Closure
		Other		

Responsible Party Business Name	Authorized Representative Name
CITY OF SANTA FE SPRINGS	GOLDSTEIN JERRY

RP Address	RP Phone #
11710 TELEGRAPH RD SFS 90670	213-868-0511

Authority for Clean Up	Clean Up Company	Cost	Site Entry Level
Private Land Owner		$ 500	o A o B o C ● D o No Entry
Business	Name		Property Use: City Street 4855
✓ City 64			
County	Time On Scene:	Time Complete:	Surrounding Area: Commercial Property 4850
State			
Federal	Date On Scene: / /	Date Left Scene: / /	Program Referral: □ Site Mit □ Enforcement □ Inspect
Other			

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information

Agen: A-SDMD;B-Business;C-CalTrans;D-Citizen;E-EPA;F-Fire;f-F HazMat;G-FishGame;H-CHP;I-Ind Waste;L-Coast Guard;N-El Maint;O-Oth Co;O-Inc City;P-Police;p-P HazMat;R-Oth Fed;S-Sheriff;T-Cal;U-Flood;X-Other;Y-EDMS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;K-Irrit;M-Mon;O-Oxid;P-Poig;R-Reac;S-Toxic;U-Unknown;W-Water Reactive Intent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-Bg;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;H-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car) Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Serr Area: 2400-Residence;2403-School;2407-Medical Facil;4842-U.S. Forest;4844-Vacant;4848-Office Bldg;4850-Commercial Prop;4855-City Street;4856-Highway;4857-County Facil;4858-Intra City;4859-Other Govt Agency

DICE 02204

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930241	01/23/93	01/23/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
212	O'Donnell 034	Omoruyi 060	10:20	01/23/93	22:20

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
09:45	01/23/93	:	F64	CAPT DE SILVA	310-944-9713

Site Name	Location
FLOOD CONTROL CHANNEL	08832 DICE RD #POINA SFS 90670

Complaint
White chemical dumped into flood control channel.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
G00 W99		N	Z99	OMORUYI

(1) Chemical or Trade Name	Hazard	State Stored	State Released	Quantity Stored
CALCIUM HYDROXIDE AND OXIDE	B	o solid o liquid o gas	• solid o liquid o gas	0.000 o lbs o gal o cu ft

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
Unknown o lbs o gal o cu ft	■ pavement ■ water □ soil □ air ■ other	6	N		0.000 o lbs o gal o cu ft

Container	# of Containers	Additional Information
o fixed o mobile	0	

Release Factors
- Intentional Act
- Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)
- Establish Safe Area
- ✓ HazCat
- Evacuation
- Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)
- Contact Agencies
- ✓ Investigate
- Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS
- Board Memo Issued
- Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name	Authorized Representative Name
LIQUID AIR	MILTON BIRD

RP Address	RP Phone #
08832 DICE RD #POINA SFS 90670	310-945-1383

Authority for Clean Up
- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company	Cost	Site Entry Level
	$	o A o B • C o D o No Entry
Name		Property Use: 4840
Time On Scene	Time Complete	Surrounding Area: Commercial Property 4850
Date On Scene: / /	Date Left Scene: / /	Program Referral: □ Site Mit □ Enforcement □ Inspect

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information

Agen: A-SQRMD;B-Business;C-Callrans;D-Citizen;E-EPA;F-Fire;F-F HazMat;G-Fish&Game;H-CHP;I-Ind Waste;L-Coast Guard;M-St Maint;N-Oth Co;O-Inc City;P-Police;Q-P HazMat;R-Oth Fed;S-Sheriff;T-Dol;V-Flood;W-Other;Y-SDMI;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;K-Irrit;N-Ann;O-Oxid;P-Pois;R-Rad;T-Toxic;U-Unknown;W-Water Reactive
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;H-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car)
Prop Use/Surr Area: 2400-Residence;2409-School;2477-Medical Facil;4842-U.S. Forest;4844-Vacant;4848-Office Bldg;4850-Commercial Prop;4855-City Street;4858-Highway;4857-County Facil;4858-Incorp City;4859-Other Govt Agency
Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-No;8-Unknown
Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood

DICE 02205

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930241	01/23/93	01/23/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
212	O'Donnell 034	Omoruyi 060	10:20	01/23/93	22:20

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
09:45	01/23/93	:	F64	CAPT DE SILVA	310-944-9713

Site Name: FLOOD CONTROL CHANNEL

Location: 08832 DICE RD #POINA SFS 90670

Complaint:
White chemical dumped into flood control channel.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
G00 W99		N	Z99	OMORUYI

Release Factors

- Intentional Act
- Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)

- Establish Safe Area
- ✓ HazCat
- Evacuation
- Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)

- Contact Agencies
- ✓ Investigate
- Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS

- Board Memo Issued
- Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name: LIQUID AIR

Authorized Representative Name: MILTON BIRD

RP Address: 08832 DICE RD #POINA SFS 90670

RP Phone #: 310-945-1383

Authority for Clean Up

- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company

Name: ANCON ENV

Cost: $ 19,000

Time On Scene: 09:45

Time Complete: 03:00

Date On Scene: 01/23/93

Date Left Scene: 01/28/93

Site Entry Level: ○ A ○ B ● C ○ D ○ No Entry

Property Use: 4840

Surrounding Area: Commercial Property 4850

Program Referral: ☐ Site Mit ☐ Enforcement ☐ Inspect

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information

Source of discharge to flood control channel was traced by walking along the channel from Santa Fe Springs Road to about 200ft from Dice Street. ph field test of materials on the flood control channel and those found around the tanks on the South/East corner of 8832 Dice Street (Liquid Air) were the same.

Agen: A-SQAMD;B-Business;C-Callers;D-Citizen;E-EPA;F-Fire;F-F HazMat;G-FishbGame;H-CHP;I-Ind Waste;L-Coast Guard;M-St Maint;N-Oth Co;O-Inc City;P-Police;p-P HazMat;R-Oth Fed;S-Sheriff;T-Def;W-Flood;X-Other;Y-EMS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;K-Irrit;M-Non;O-Oxid;P-Pois;R-Reac;T-Toxic;U-Unknown;W-Water Reactive Extent. 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-Ra;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;N-No Container;R-Rail Car;T-Tank;V-vehicle (Truck/Car) Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Serr Area: 2468-Residence;2469-School;2473-Medical Facil;4842 U.S. Forest;4844-Vacant;4846-Office Bldg;4850-Commercial Prop;4855-City Street;4856-Highway;4857-County Facil;4858-Incorp City;4859-Other Govt Agency

LIQUID AIR
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670

Sampler: Nosa Omoruyi

FIELD SAMPLE #N12393-1

DATE SAMPLED:	January 23, 1993
TIME:	1420 Hours
MATERIAL:	Off-white-mudlike material with uniform smoothness
LOCATION:	The material was scooped from the floor about five feet from the most southerly tank.

FIELD SAMPLE #N12393-2

DATE SAMPLED:	January 23, 1993
TIME:	1445 Hours
MATERIAL:	Off-white-mudlike material with uniform smoothness.
LOCATION:	The material was scooped from the flood control bed located approximately 100 feet south of the tank farm at Liquid Air, 8832 Dice Road, Santa Fe Springs. It was sampled at approximately two feet east of the discharge point of a pipe carrying the material from Liquid Air into the flood control channel.

FIELD SAMPLE #N12493-3

DATE SAMPLED:	January 24, 1993
TIME:	0840 Hours
MATERIAL:	Frost beige light-bodied material with uniform smoothness.
LOCATION:	Taken inside the bed of the Flood Control Channel at approximately 1/4 mile east of Santa Fe Spring Road, Santa Fe Springs.

Drawn not to scale

No. 010849

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS CONTROL PROGRAM

Owner _____

Business LIQUID AIR

Address 8832 DICE RD

City, Zip Code SANTA FE SPRINGS CA 90670

Date 01-23-93

Refer Reply To:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-3223
(213) 748-1605 (FAX)

NOTICE OF VIOLATION AND ORDER TO COMPLY

The following conditions or practices observed at your facility are violations of the California Code of Regulations (CCR), Title 26, Division 22 or the California Health and Safety Code, Division 20, Chapter 6.5, (H&S) which relate to the storage, management, transportation, and disposal of hazardous waste. YOU ARE DIRECTED TO CORRECT THE VIOLATIONS WITHIN THE TIMES SPECIFIED BELOW.

CORRECTION DATE

DISPOSAL:

01-23-93 ☒ 1. Discontinue the disposal of hazardous waste to an unauthorized point(s) (H&S 25189.5) (Caustic Material) to Flood Control Channel up to a point where pH is Neutral.

01-23-93 ☒ 2. Legally dispose of all hazardous waste and contaminated materials (H&S 25189.5) (☐ stored at/ ☒ discharged to) Flood Control Channel (H&S 25189.5) & (H&S 25186.2)

MANAGEMENT:

☐ 3. Submit to this office a copy of your facility's hazardous materials contingency plan and employee training plan. (CCR 67105, 67120-67126, 67140-67145)

TRANSPORTATION:

☐ 4. Discontinue the transport of hazardous waste until the following have been met:

☐ A. Obtain an EPA Identification Number from the State Department of Health Services at (916) 324-1781 (CCR 66472)

☐ B. Complete a uniform Hazardous Waste Manifest or obtain a receipt when applicable under State Department of Health Services variance procedures.

☐ C. Transport all hazardous waste by a State registered hauler. (H&S 25163)

☐ 5. Submit to this office a copy of the completed hazardous waste manifest(s) used to dispose of _____ (CCR) 66328).

☐ 6. Keep copies at your facility of all completed manifests, receipts or both for a minimum of 3 years and make documents available for agency review. (CCR-66492)

STORAGE:

☐ 7. Discontinue the storage of hazardous waste for longer than 90 days without a permit from the State Department of Health Services (CCR 66508)

☐ 8. Store all hazardous waste in compatible containers which are closed and in good condition. (CCR 66241-67243)

☐ 9. Properly label all hazardous waste containers with the following: the words, "HAZARDOUS WASTE"; name and address of generator; hazardous properties; a composition and physical state of the waste; and the accumulation date. (CCR 66693-66746)

OTHER:

☐ 10. Provide this office with a site assessment and mitigation plan for the contamination at your facility (H&S 25245-25249)

☐ 11. Provide this office with a copy of a waste determination conducted by a state certified laboratory or waste documentation in accordance to the regulations. (CCR 66693-66746)

☐ 12.

Failure to fully comply with this Notice and Order may result in further legal action.

Owner or Authorized Representative

Hazardous Materials Specialist

DICE 02209

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930201	01/27/93	01/27/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
111	O'Donnell 034	Lohnes 041	18:30	01/28/93	03:00

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
18:00	01/27/93	:	P99	C SHERMAN	818-458-3533

Site Name	Location
LIQUID AIR CORP	08832 DICE RD # A SFS 90670

Complaint
A caustic material is flowing into the storm drain.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
W99 Z99 F00		N	G00	LT JOE PECSI

(1) Chemical or Trade Name	Hazard	State Stored	State Released	Quantity Stored
LIME BYPRODUCTS	C	o solid ● liquid o gas	o solid ● liquid o gas	0.000 o lbs o gal o cu ft

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
300.000 o lbs ● gal o cu ft	□ soil □ pavement ■ water □ air ■ other	6			0.000 o lbs o gal o cu ft

Container	# of Containers	Additional Information
o fixed o mobile	0	

Release Factors

- Intentional Act
- ✓ Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)

- Establish Safe Area
- ✓ HazCat
- Evacuation
- ✓ Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)

- Contact Agencies
- ✓ Investigate
- × Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS

- Board Memo Issued
- ✓ Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name	Authorized Representative Name
LIQUID AIR	MILTON BIRD

RP Address	RP Phone #
08832 DICE RD # A SFS 90670	310-945-1383

Authority for Clean Up

- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company	Cost	Site Entry Level
Name: ANCON ENV	$ 8,000	o A o B o C ● D o No Entry
		Property Use: Commercial Property 4850
Time On Scene: 21:00	Time Complete: 03:00	Surrounding Area: Commercial Property 4850
Date On Scene: 01/27/93	Date Left Scene: 01/28/93	Program Referral: □ Site Mit ■ Enforcement □ Inspect

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information
Run-off liquid containing an undetermined amount of a "Calcium Hydroxide" waste product was discovered in a storm ditch. The material had come from a storm drain within the liquid air plant. The Enforcement Unit will conduct an investigation.

Agen: A-SQMD;B-Business;C-Callrem;D-Citizen;E-EPA;F-Fire;G-F HazMat;H-CHP;I-Ind Waste;L-Coast Guard;M-St Maint;N-Oth Co;O-Inc City;P-Police;p-P HazMat;R-Oth Fed;S-Sheriff;T-DOT;V-Flood;W-Other;Y-EDMS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Glass;I-Infect;K-Irrit;M-Ben;O-Oxid;P-Pois;R-Reac;T-Toxic;U-Unknown;W-Water Reactive
Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-No;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;N-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car)
Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Surr Area: 2400-Residence;2450-School;2477-Medical Facil;4042-U.S. Forest;4044-Vacant;4046-Office Bldg;4050-Commercial Prop;4055-City Street;4056-Highway;4057-County Facil;4058-Incorp City;4059-Other Govt Agency

No. C10040

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS CONTROL PROGRAM

Owner Harry Hinkle, Pres.
Business Liquid Air
Address 8832 Dice Road
City, Zip Code Santa Fe Springs CA 90670

Date 28 JAN 1993
Refer Reply To: MARTY KASMAN
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-3223
(213) 748-1605 (FAX)
5825 Rickenbacker
Commerce 90040
(213) 890-4045

NOTICE OF VIOLATION AND ORDER TO COMPLY

The following conditions or practices observed at your facility are violations of the California Code of Regulations (CCR), Title 26, Division 22 or the California Health and Safety Code, Division 20, Chapter 6.5, (H&S) which relate to the storage, management, transportation, and disposal of hazardous waste. YOU ARE DIRECTED TO CORRECT THE VIOLATIONS WITHIN THE TIMES SPECIFIED BELOW.

CORRECTION DATE

DISPOSAL:

1-28-93 ☒ 1. Discontinue the disposal of hazardous waste to an unauthorized point(s) (H&S 25189.5) All hazardous waste discharged to the ground and stormdrain and flood channel

1-28-93 ☒ 2. Legally dispose of all hazardous waste and contaminated materials (H&S 25189.5) (☐ stored at/☒ discharged to) the above cited location (H&S 25189.5) & (H&S 25186.2)

MANAGEMENT:

2-5-93 ☒ 3. Submit to this office a copy of your facility's hazardous materials contingency plan and employee training plan. (CCR 67105, 67120-67126, 67140-67145)

TRANSPORTATION:

☒ 4. Discontinue the transport of hazardous waste until the following have been met:

☒ A. Obtain an EPA Identification Number from the State Department of Health Services at (916) 324-1781 (CCR 66472)

☒ B. Complete a uniform Hazardous Waste Manifest or obtain a receipt when applicable under State Department of Health Services variance procedures.

☒ C. Transport all hazardous waste by a State registered hauler. (H&S 25163)

2-5-93 ☒ 5. Submit to this office a copy of the completed hazardous waste manifest(s) used to dispose of all hazardous waste from discharges on 1-23-93 and 1-27-93 + proper work (CCR) 66328).

☐ 6. Keep copies at your facility of all completed manifests, receipts or both for a minimum of 3 years and make documents available for agency review. (CCR-66492)

STORAGE:

☐ 7. Discontinue the storage of hazardous waste for longer than 90 days without a permit from the State Department of Health Services (CCR 66508)

Forthwith ☒ 8. Store all hazardous waste in compatible containers which are closed and in good condition. (CCR 66241-67243)

Forthwith ☒ 9. Properly label all hazardous waste containers with the following: the words, "HAZARDOUS WASTE"; name and address of generator; hazardous properties; a composition and physical state of the waste; and the accumulation date. (CCR 66693-66746)

OTHER:

Forthwith ☒ 10. Provide this office with a site assessment and mitigation plan for the contamination at your facility (H&S 25245-25249) for all contamination on site and off site

☐ 11. Provide this office with a copy of a waste determination conducted by a state certified laboratory or waste documentation in accordance to the regulations. (CCR 66693-66746)

2-93 ☒ 12. Provide this office of cause and origin of releases and preventative steps to be taken to prevent further discharges.

Failure to fully comply with this Notice and Order may result in further legal action.

Owner or Authorized Representative

Hazardous Materials Specialist

H-2856 76N702V (5/90)

INSPECTOR COPY

DICE 02211

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

February 2, 1993

Milton Bird, Plant Manager
Liquid Air
8832 Dice Rd.
Santa Fe Springs, CA 90670

Dear Mr. Bird:

SUBJECT: LIQUID AIR CORPORATION LIME PIT CLOSURE

On January 28, 1993, an inspection of the above facility was conducted by staff of this Department. The investigation revealed that the lime pit is undergoing closure. As the generator/operator of the facility you are responsible for the appropriate mitigation of site conditions. Therefore you are hereby directed to:

1. Discontinue site activities of such closure until such time as you submit a written workplan and receive written approval from this Department.

2. Determine the nature, concentration, and vertical and lateral extent of contamination and legally dispose or remediate all contaminated materials or soils to either non-detectable or natural background concentration levels. If remediation of contaminated soils to non-detectable or natural background levels is not possible or feasible, appropriate federal and/or state risk assessment guidelines must be used to determine a cleanup level sufficient to protect public health and the environment.

3. Permits and/or approvals for work associated with the workplan must be obtained from all appropriate agencies.

If you have any questions, please feel free to call Marty Kasman or Tom Klinger at (213) 890-4045.

Very truly yours,

P. MICHAEL FREEMAN

By Thomas W. Klinger
for WILLIAM JONES
MANAGER, INVESTIGATIVE SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:mk

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	BRADBURY	DIAMOND BAR	IRWINDALE	LOMITA	PICO RIVERA	SIGNAL HILL
ARTESIA	CALABASAS	DUARTE	LA CANADA FLINTRIDGE	MALIBU	RANCHO PALOS VERDES	SOUTH EL MONTE
AZUSA	CARSON	GLENDORA	LAKEWOOD	MAYWOOD	ROLLING HILLS	SOUTH GATE
BALDWIN PARK	CERRITOS	HAWAIIAN GARDENS	LA MIRADA	NORWALK	ROLLING HILLS ESTATES	TEMPLE CITY
BELL	CLAREMONT	HIDDEN HILLS	LANCASTER	PALMDALE	ROSEMEAD	WALNUT
BELLFLOWER	COMMERCE	HUNTINGTON PARK	LA PUENTE	PALOS VERDES ESTATES	SAN DIMAS	WEST HOLLYWOOD
BELL GARDENS	CUDAHY	INDUSTRY	LAWNDALE	PARAMOUNT	SANTA CLARITA	WESTLAKE VILLAGE
						WHITTIER

Gilkopy

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

February 24, 1993

Dr. Robert G. Ghirelli
Los Angeles Regional
Water Quality Control Board
101 Centre Plaza Dr.
Monterey Park, California 91754-2156

Dear Dr. Ghirelli:

SUBJECT: LIQUID AIR CORPORATION, 8832 DICE ROAD, SANTA FE SPRINGS SITE ASSESSMENT AND REMEDIATION

On January 29, 1993, representatives of this Department responded to a discharge of hazardous substances from the subject facility into a culvert which leads to Coyote Creek. This Department intends to pursue any appropriate legal filings and/or enforcement actions as it relates to the offsite discharge from the Liquid Air facility. However, for the following reasons, we feel it is important and necessary for your agency to become involved as the lead agency on site remediation issues related to two evaporation ponds which have been in existence for the past forty-five to fifty years:

1) Ground water is reported to be relatively shallow at approximately forty feet below ground surface.

2) Liquid Air is arguing that because lime is excluded from hazardous waste provisions under the Health and Safety Code we have no jurisdiction. Your authority on this matter is very clear and is documented by a series of notifications from your agency to Liquid Air over the past twenty years.

3) There is currently no public health concern requiring evaluation except as it relates to potential groundwater impact.

4) Your agency previously issued an NPDES permit for the evaporation ponds at the facility and should therefore follow up violations relating to the said permit.

5) The calcium hydroxide (lime) has been or will shortly be removed by Liquid Air which will leave only ground water issues to be resolved. Liquid Air was given permission to complete excavation of "product" with concurrence from your office.

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS, ARTESIA, AZUSA, BALDWIN PARK, BELL, BELLFLOWER, BELL GARDENS, BRADBURY, CALABASAS, CARSON, CERRITOS, CLAREMONT, COMMERCE, CUDAHY, DIAMOND BAR, DUARTE, GLENDORA, HAWAIIAN GARDENS, HIDDEN HILLS, HUNTINGTON PARK, INDUSTRY, IRWINDALE, LA CANADA FLINTRIDGE, LAKEWOOD, LA MIRADA, LANCASTER, LA PUENTE, LAWNDALE, LOMITA, MALIBU, MAYWOOD, NORWALK, PALMDALE, PALOS VERDES ESTATES, PARAMOUNT, PICO RIVERA, RANCHO PALOS VERDES, ROLLING HILLS, ROLLING HILLS ESTATES, ROSEMEAD, SAN DIMAS, SANTA CLARITA, SIGNAL HILL, SOUTH EL MONTE, SOUTH GATE, TEMPLE CITY, WALNUT, WEST HOLLYWOOD, WESTLAKE VILLAGE, WHITTIER

DICE 02213

For the above reasons, this Department is referring this matter to your agency for remediation oversight. Mr. Rod Nelson has visited the site with Tom Klinger of my staff, and has been given a briefing on our concerns and a copy of a pit closure report from Liquid Air Corporation. This Department would appreciate copies of any correspondence in the future and will direct all future inquires by Liquid Air to your agency relative to remediation and evaluation of groundwater impact.

If you have any questions on this matter please feel free to contact Tom Klinger of my staff at (213) 890-4106.

Very truly yours,

P. MICHAEL FREEMAN

by
WILLIAM JONES, M.S., MANAGER
INVESTIGATIVE SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:kc

cc: J. Karbus
T. Klinger
R. Gillaspy
D. Dasker
C. Wilson
S. Koester

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
101 CENTRE PLAZA DRIVE
MONTEREY PARK, CA 91754-2156
(213) 266-7500

February 23, 1993

Mr. Robert Predmore
Director of Engineering
Liquid Air Corporation
2121 North California Blvd.
Walnut Creek, CA 94596

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Claim No. P 997 019 711

SITE INVESTIGATION - LIQUID AIR CORPORATION, SANTA FE SPRINGS
(FILE NO. 93-03)

The California Regional Water Quality Control Board, Los Angeles Region, is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within the Region.

On February 17, 1993, staff from this Regional Board accompanied staff from Los Angeles County Fire Department, Health Haz Mat Division (County Haz Mat) during an inspection of a lime pit located at the Liquid Air Facility in Santa Fe Springs. The unlined pit was used to discharge spent lime used in the production of acetylene gas. Material in the pit is currently being excavated, and a closure plan for the pit has been submitted to County Haz Mat for their approval.

During the inspection, Regional Board staff observed conditions such as ponded water and runoff from the facility in the pit which may have an adverse impact on ground water quality beneath the site. Further, analyses of samples of water in the pit and from lime adjacent to the pit obtained from the California Department of Health Services (now the Department of Toxic Substances Control) in August 1991 indicate high pH in excess of applicable water quality objectives. Liquid Air does not have Waste Discharge Requirements (WDRs) prescribed by this Regional Board for operation of the unlined pit. Discharge of pollutants to the waters of the State without valid WDRs constitutes a violation of Section 13260 of the California Water Code.

You are therefore directed, pursuant to Section 13267 (b) of the California Water Code, to submit a technical report, in this case an investigation workplan, to assess the full areal extent of the contamination in the pit and any impact that it may have on ground water quality by **March 31, 1993**. Please be advised that failure to submit this workplan may result in the issuance of a Cleanup and Abatement Order or a complaint for Administrative Civil Liability, pursuant to Section 13268 of the California Water Code, in an amount up to $1,000 per day, for each day that the technical report is not received.

In order to fully evaluate subsurface conditions onsite, you are also required to conduct a facility audit and prepare a report summarizing past and present underground and above-ground storage tank operations, and identifying areas used onsite for barrel storage and handling activities, as well as chemical processing and treatment facilities. Emphasis should be placed on depicting areas and their identified uses. A site map, to scale, showing the location of areas of concern is required. In your facility audit report, please also provide a complete chronology of prior occupants of the subject site, including dates of occupancy, type of business, and chemical storage and use information. In addition, you are required to submit the results of your 1990 underground storage tank investigation required by the Los Angeles County Department of Public Works. Staff will review the site audit information and make a determination if additional site assessment is warranted.

Should you have any questions concerning these requirements, please contact Blythe Ponek-Bacharowski at (213) 266-7580.

Rodney H. Nelson

RODNEY H. NELSON
Senior Engineering Geologist

cc: Jorge Leon, State Water Resources Control Board, Office of the Chief Counsel
Doug Suzuki, Department of Toxic Substances Control, Glendale
Tom Klinger, County of Los Angeles Forester and Fire Warden-Health Haz Mat Division
James L. Meeder, Attorney

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

February 2, 1993

Milton Bird, Plant Manager
Liquid Air
8832 Dice Rd.
Santa Fe Springs, CA 90670

Dear Mr. Bird:

SUBJECT: LIQUID AIR CORPORATION LIME PIT CLOSURE

On January 28, 1993, an inspection of the above facility was conducted by staff of this Department. The investigation revealed that the lime pit is undergoing closure. As the generator/operator of the facility you are responsible for the appropriate mitigation of site conditions. Therefore you are hereby directed to:

1. Discontinue site activities of such closure until such time as you submit a written workplan and receive written approval from this Department.

2. Determine the nature, concentration, and vertical and lateral extent of contamination and legally dispose or remediate all contaminated materials or soils to either non-detectable or natural background concentration levels. If remediation of contaminated soils to non-detectable or natural background levels is not possible or feasible, appropriate federal and/or state risk assessment guidelines must be used to determine a cleanup level sufficient to protect public health and the environment.

3. Permits and/or approvals for work associated with the workplan must be obtained from all appropriate agencies.

If you have any questions, please feel free to call Marty Kasman or Tom Klinger at (213) 890-4045.

Very truly yours,

P. MICHAEL FREEMAN

By Thomas W. Klinger
for WILLIAM JONES
MANAGER, INVESTIGATIVE SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:mk

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	BRADBURY	DIAMOND BAR	IRWINDALE	LOMITA	PICO RIVERA	SIGNAL HILL
ARTESIA	CALABASAS	DUARTE	LA CANADA FLINTRIDGE	MALIBU	RANCHO PALOS VERDES	SOUTH EL MONTE
AZUSA	CARSON	GLENDORA	LAKEWOOD	MAYWOOD	ROLLING HILLS	SOUTH GATE
BALDWIN PARK	CERRITOS	HAWAIIAN GARDENS	LA MIRADA	NORWALK	ROLLING HILLS ESTATES	TEMPLE CITY
BELL	CLAREMONT	HIDDEN HILLS	LANCASTER	PALMDALE	ROSEMEAD	WALNUT
BELLFLOWER	COMMERCE	HUNTINGTON PARK	LA PUENTE	PALOS VERDES ESTATES	SAN DIMAS	WEST HOLLYWOOD
BELL GARDENS	CUDAHY	INDUSTRY	LAWNDALE	PARAMOUNT	SANTA CLARITA	WESTLAKE VILLAGE
						WHITTIER

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

AIRCRAFT TRANSPORTATION REQUEST

ATE OF TRIP	DATE OF REQUEST 01/29/93
REQUESTED BY Marty Kasman	PHONE (213) 890-4070
CONTACT	PHONE
CODE OR ORDER NUMBER 40185	APPROVED BY / CHARGES ☐ YES ☒ NO
MISSION LOCATION See Below	TIME AM
NUMBER OF PASSENGERS 1	CARGO Photographic Equipment

DESCRIBE FLIGHT REQUEST IN DETAIL (INCLUDE PROPOSED STOPS, ESTIMATED STAY AT DESTINATION, ETC.)

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Need to perform fly-over of facility to photograph facility yard and surrounding areas. This facility is under investigation by the Health Hazardous Materials Division for State hazardous waste violations.

AIRCRAFT	PILOT
	CREW
FLIGHT TIME STOP START TOTAL	CREW TIME STOP START TOTAL

REMARKS

Form 408 9-87 76H400

DICE 02218

LIQUID AIR

AN AIR LIQUIDE GROUP COMPANY

BY FEDERAL EXPRESS TRACKING NO. 5124284874

January 29, 1993

Mr. Marty Kasman
County of Los Angeles
Department of Health Services
5825 Rickenbacker
Commerce, CA 90040

Sub: Answer to Notices of Violation and Order to Comply
Dated January 23, 1993 and January 28, 1993

Re: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Kasman:

The purpose of this letter is to respond to the above referenced Notices pursuant to your inspection of our Santa Fe Springs facility. Please be advised that we have removed our hydrated lime co-product from the flood control channel and dirt ditch adjacent to our facility and from the storm drain pipe and catch basin behind the acetylene plant. This lime material has been restored and regraded into our lime containment area by our contractor in such a manner so as to prevent accidental overflow even during a heavy rainstorm event.

With regard to the Notice dated 01-23-93:

1. Our hydrated lime co-product is not a hazardous waste according to 22 CCR § 66261.20 et. seq. The pH of this material is less than 12.5 when measured as required according to EPA Test Method 9040 as set forth in SW-846. Therefore, Health and Safety Code (H&SC) § 25189.5 is not applicable.

2. As stated above, our hydrated lime is not a hazardous waste and therefore H&SC §§ 25189.5 and 25186.2 do not apply in the instant matter.

dns9693.ltr

Street Address: 2121 North California Blvd., Walnut Creek, CA 94596 • 510/977-6500 • Telecopier: 510/977-6840
Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596

With regard to the Notice dated 01-28-93, in the order marked therein:

1. & 2. H&SC §§ 25189.5 and 25186.2 do not apply because the hydrated lime is not a hazardous waste.

3. A copy of our facility's hazardous materials business plan is attached. Our facility is a Small Quantity Generator only and therefore a Hazardous Waste Contingency Plan is not required.

4. & 5. The hydrated lime which was removed from the drainage conveyances in the instant matter is not a hazardous waste and was replaced in the lime containment area on our site. Therefore, EPA ID Number (22 CCR § 66472), HW Manifest and transportation (H&SC 25163) requirements do not apply.

* *

8. & 9. The non-hazardous lime material was replaced in our containment areas as stated above. The storage and labeling requirements for hazardous wastes under 22 CCR § 66241-67243 and § 66693-66746 do not apply.

10. The site assessment and mitigation plans referenced under H&SC §§ 25245-25249 apply to hazardous waste (TSD) facility closures and postclosures. This is not applicable in the instant matter.

* *

12. The discharge of lime occurred when our operator unknowingly struck with a forklift truck (while driving) sandbags which were positioned about the storm drain catch basin for containment purposes, during the cleanup process. Residue lime in this area then flowed into the catch basin conveyance.

We have completed the cleanup of spilled lime material and regraded our lime containment area as explained above.

dns9693.ltr

We appreciate your Department's concerns in this matter.

Very truly yours,

David N. Simon
Manager Regulatory Affairs

DNS/db

Att:

cc: Milt Bird - Liquid Air, Santa Fe Springs
Bryan Leger - Liquid Air, Santa Fe Springs

dns9693.ltr

1 9 9 3

HAZARDOUS MATERIAL

BUSINESS PLAN

LIQUID AIR CORPORATION

8832 Dice Road

Santa Fe Springs, CA. 90670

The following report was compiled by Liquid Air Corporation, as part of its environmental and community "Right To Know" compliance effort. It was conceived and executed as a complete report and may not be separated, divided or mutilated for any reason. Partial copies of this report are hereby declared invalid. Complete copies are available from Liquid Air Corporation.

303-90.sg

LIQUID AIR CORPORATION
SANTA Fe SPRINGS PLANT
EMERGENCY RESPONSE PLAN

Date: 2/1/93

Written by: Bryan Leger

1. Purpose

The purpose of this plan is to provide for the protection of employee's, company property, and to minimize hazards to public health and the environment caused by fire, severe weather, unplanned release of energy or hazardous materials, earthquake, or other accidents of major proportions.

NO EMPLOYEE WILL ASSUME GRAVE RISK TO SELF OR OTHERS IN ATTEMPTING TO CONTROL FIRES OR OTHER HAZARDS. AT ALL TIMES, PERSONAL SAFETY WILL TAKE PRECEDENCE OVER PROTECTION OF COMPANY PROPERTY.

Safety is an integral part of any Liquid Air operation. All personnel affected by this procedure must be familiar with it and all appropriate safety manuals.

2. Emergency Response Team

Emergency Response Team members, in order of authority:

Plant Manager	(emergency coordinator)
Administrative Manager	(communication coordinator)
Shift Manager/Supervisor	(plant personnel coordinator)
Receptionist	(office personnel coordinator)
Plant Secretary	

3. Duties of the Emergency Response Team

A. Emergency Coordinator (EC)

The EC has the responsibility for coordinating all emergency control measures. All other members of the ERT report to the EC. The EC will be the person who is in charge of "fighting the fire" from the company's point of view. This person will of course be totally familiar with the equipment and special hazards in the plant. The EC has the authority to commit the resources needed to carry out this Emergency Response Plan.

B. Communications Coordinator (CC)

The Communications Coordinator will be responsible for interfacing with all external parties in an emergency. This includes the fire department, Liquid Air Headquarters in Walnut Cree, paramedics, ambulances, news media, etc. The Communications Coordinator must be familiar with the entire plant and will be able to provide all outsiders with the information they require so that the EC will be able to concentrate on the emergency itself. The Communications Coordinator will work directly with the Plant Secretary, but will remain at the on site fire department control center as much as possible after the early stages of the emergency.

C. Plant Personnel Coordinator (PPC)

The Plant Personnel Coordinator has the responsibility of accounting for all plant employees immediately after an emergency. The PC shall retrieve all employee time cards and evacuate to the sight evacuation area. The Plant Personnel Coordinator must then make a headcount of all plant employees. When the roster is complete, the PC is to immediately notify the Emergency Coordinator of the count, including the names of anyone who was not able to evacuate. All employees must remain in the Evacuation Area until told to evacuate further by either the Emergency Coordinator or the fire department. At this time, the PC will become a relay point between the Communications Coordinator and the Plant Secretary.

D. Office Personnel Coordinator (OPC)

The Office Personnel Coordinator has the responsibility of accounting for all office employees and visitors. The Office Personnel Coordinator shall retrieve the guest register and evacuate to the sight evacuation area. The Office Personnel Coordinator must then make a head count of all office employees and visitors. When the roster is complete, the Office Personnel Coordinator is to immediately notify the Emergency Coordinator of the count, including the names and company name of anyone who was not able to evacuate. The Office Personnel Coordinator shall request all visitors to sign out before leaving and assure that there are no injuries. All employees must remain in the Evacuation Area until told to evacuate further either by the Emergency Coordinator or the fire department.

E. Plant Secretary (PS)

The Plant Secretary is responsible for notifying all necessary parties in an emergency, using the Emergency phone list. The Plant Secretary reports to the Communications Coordinator. The Plant Secretary must notify the fire department, office of Emergency Services, and the Liquid Air Emergency Response Network.

At the first indication of an emergency the Plant Secretary shall call the fire department immediately. Then the Plant Secretary must go to the plant switchboard where all phone lines are available. The Plant Secretary must then call other agencies as directed by the Emergency Coordinator. When notifications are complete the Plant Secretary is responsible for monitoring all telephone lines. Outgoing calls are not allowed, except those placed by the Plant Secretary. Incoming calls not related to the emergency are to be terminated in the least amount of time possible. The Plant Secretary is to be courteous, but firm with incoming callers. No mention of the emergency is to be made, in the interest of time. Callers are to be told to call back on the following business day. All calls from local citizens or the news media are to be referred to the Communications Coordinator. Notify all employee's to stay at home unless otherwise directed by the Emergency Coordinator.

4. Emergency Response Procedure

A. General

As soon as an emergency which may cause injury, property, or environmental damage occurs, the individual who notices the problem must report it to their shift manager/supervisor. The shift manager/supervisor sends the individual reporting the emergency to notify both the Emergency Coordinator and the Communication Coordinator. The shift manager/supervisor shall assume the responsibilities of the Emergency Coordinator until the plant manager relieves him of Emergency Coordinator responsibilities. The Communication Coordinator immediately calls the fire department and notifies the Plant Secretary of the problem. The Emergency Coordinator immediately goes to the problem area and assess the situation. The Plant Secretary begins the evacuation and notification procedures while the Communication Coordinator goes to the front gate to wait for the fire department, in order to direct them to the problem area.

B. Earthquake Procedures

In the event of an Earthquake, the shift manager/supervisor assumes the temporary role of the Emergency Coordinator until the Plant Manager relieves him of the Emergency Coordinator duties. The first move the Emergency Coordinator makes will be to survey the facility. All employees are to evacuate as per the General Emergency Plan. If the Emergency Coordinator discovers an emergency situation, he is to immediately notify the Communication Coordinator and activate the Emergency Plant Shutdown. The Communication Coordinator must first go to the evacuation area and coordinate the head count for the Plant Personnel Coordinator the Office Personnel Coordinator. The Plant Personnel Coordinator will report any missing person to the Emergency Coordinator immediately.

Critical Equipment to be checked visually for damage in the event of an earthquake are as follows:

1. Acetylene Generator and foundation.
2. Building Foundations.
3. All storage vessels (cryogenic and high pressure).
4. Compressors (2- air compressor and 1-helium).
5. Cryogenic Pumps.

C. After the Emergency

After the emergency has been controlled, the Emergency Coordinator will ensure the storage/disposal of hazardous material that has resulted from the emergency or containment efforts. The Emergency Coordinator will then complete an incident report and send it to Liquid Air Headquarters within 24 hours.

Important Telephone Numbers

Emergency Response Team (Santa Fe Springs)

Emergency Coordinator-Plant Manager	Milton Bird	(310)	697-0115
Communication Coordinator-Adm.Mgr.	Marlene Powers	(714)	637-7814
Plant Personnel Coordinator	Jim Miller	(714)	971-7915
Plant Personnel Coordinator-	Scott Pace	(213)	698-2557
Plant Secretary	Bev Grant	(714)	526-2170
Office Personnel Coordinator	Fanny Sanchez	(310)	421-3517

NOTIFICATION

LIQUID AIR CORP.	(510) 977-6500	8 AM TO 5 PM
	(800) 231-1366	AFTER HOURS
SANTA FE SPRINGS FIRE DEPT.	(310) 944-9713	
STATE OFFICE OF EMERGENCY SERVICES	(800) 852-7550	
LOCAL EMERGENCY RESPONSE PERSONNEL	911	

We have demonstrated reasonable care in preparing our emergency response plan. All plans and procedures should be adequate in the event of an emergecy involving our hazardous materials.

1 9 9 3

HAZARDOUS MATERIAL

BUSINESS PLAN

LIQUID AIR CORPORATION

8832 Dice Road

Santa Fe Springs, CA. 90670

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LOCAL EMERGENCY RESPONSE PERSONNEL	911	

We have demonstrated reasonable care in preparing our emergency response plan. All plans and procedures should be adequate in the event of an emergecy involving our hazardous materials.

L.A. COUNTY HEALTH SERVICES
HAZARDOUS WASTE CONTROL PROGRAM

CASE NAME LIQUID AIR CORPORATION

DATE	TIME	INITIALS	REMARKS
5-12-89		AP/CJ/MG	DURING COURSE OF INSPECTION CAME UPON DRUMS
			OF HAZARDOUS WASTE - THE ONLY LEGIBLE PART OF
			THE LABEL WAS THE ACCUMULATION START
			DATE - 3/29/88. MR BARGER STATES
			THAT HE HAD ARRANGED WITH IT CORP TO
			DISPOSE OF WASTE BUT WHEN HE GOT THEIR
			BILL, IT WAS TOO HIGH AND HE WAS
			FORCED TO "START FROM SCRATCH" LOOKING
			FOR ANOTHER HAULER. ISSUED HEARING
			NOTICE FOR 5/24/89 2:00 PM. ISSUED NOV
			COVERING CONTINGENCY PLAN, DISPOSAL, STORAGE
			AND LABELING OF WASTES.
2/28/91		mg	Called State Health Paul Barnick
			left message with address
			and to call back mg
3/1/91		mg	Contacted Rick Jones of the
			SDOHS and advised of
			pit on property mg

DICE 02232

Southern California District Office

17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.
a subsidiary of environmental system company

Date: July 6, 1989

To: Mr. Dave Simon
Liquid Air

From: Walt Pouchot
Chemical Services Manager
Ensco Environmental Services, Inc.

Subject: Remediation status report for week of 7/7/89

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA. 90670

With reference to my memo of 6/21/89, the five phases included in the original scope of work proposed to Liquid Air Corporation for the disposal of their drummed waste has progressed as follows:

Phase	Start Date	Finish Date
1. Sampling, segregation, Hazcat and initial packaging	Complete	
2. Laboratory Analysis, profile preparation, final packaging.	5/29	7/14

This phase is 80% complete. After some laboratory delay, all the analytical results are complete. The analytical data are enclosed with this mailing. The oil/water mixtures have been sent to a recycler (650 gallons). Inventories of the lab packs packaged by I.T. Corporation have been completed, and necessary packaging corrections will be made the week of 7/10-7/14. A drum of Ethylene Glycol will be transferred due to severe denting. A few other drums will be overpacked for the same reason. The potassium hydroxide solution will be transferred from the DOT17H drums to poly drums for shipment. After all overpacking, transfer, and repackaging is complete, all empty drums will be crushed (metal) or cut up (poly). Thirty eight disposal profiles have been

prepared for the 180 drums of waste on site. Extremely hazardous waste (EH) permit applications have been prepared for Tom Barber' signature. These will be hand delivered to DOHS for expeditious approval.

3. Coordinate, interface and obtain TSD approval for shipment 6/5 7/17

This is ongoing. All disposal profiles have been submitted to disposal sites with confirming samples. Local disposal options are planned - ESCO (TCE, Methylene Chloride, etc.); Appropriate Technologies (liquid bases and acids); Kinirski Bros. (Batteries); PRC (Oils). Daily conversations are held with the disposal sites to expedite approval.

4. Schedule shopping date and prepare manifests 6/26 7/26

Manifest preparation is beginning now due to the volume of profiles and the variety of disposal destinations. We expect the drums going to ENSCO Systems for incineration to be picked up on 7/26 or 7/27. A receiving date for the material has been set with ENSCO for 8/2/89.

5. Ship Material 6/26 7/31

This process has begun and will be continued as disposal site approvals are received.

Although a few finish dates have been adjusted due to analytical data delays, the overall time frame for project completion is firm. Another status report will be submitted following the on site activities of 7/10-7/14.

Region 10

MEMORANDUM

TO: Tom Otteson
FROM: Bernard Valasky
DATE: July 13, 1962
FILE: CAL. OXYGEN CO. I-225-1H
8832 Dice Road
City of Santa Fe Springs

Transmitted herewith is a set of approved plans for the subject building including the installation of two floor drains, an S-a-156 receptor and an S-a-170 interceptor.

This building will be used to conduct an oxygen cylinder maintenance and filling operation. The cylinders will be washed in a detergent, tested, and painted. A water curtain paint spray booth will be installed for the painting operation. The hydrostatic test water which will amount to approximately 80 gallons per day will be recycled for use in the washing operation. All of the waste from this operation will discharge to the sewer in Dice Road through the S-a-170 interceptor.

This company is currently operating under Industrial Waste Permit No. 9006.

BIV-RG:rst
Attachment
cc: Region 10
WG
JH
RG
I-225-1H

DICE 02235

FIRE DEPARTMENT OF THE
CITY OF SANTA FE SPRINGS
HEADQUARTERS FIRE STATION • (213) 944-9743
11300 GREENSTONE AVE. • SANTA FE SPRINGS, 90670-4815

January 8, 1991

Steve Pebler, Regional Production Manager
Liquid Air
8832 Dice Rd.
Santa Fe Springs, CA 90670

SUBJECT: Waste Water Discharge to Sludge Pits
Cease and Desist

Dear Mr. Pebler:

Our inspections on 12/17/90 and 12/18/90, found that you are currently discharging waste water to unlined pits at the eastern portion of your facility. Several samples of soil and water from the pits were taken for laboratory analysis of pH, alkalinity, heavy metals and organic solvents. The liquid being discharged to the southern pit and the water in the pit were field tested with pH paper and found to have a pH between 12 and 13. The City of Santa Fe Springs does not permit waste water with a pH greater than 9 to be discharged to the ground.

Due to the excessively high pH of the waste water, you are directed to immediately stop discharging the waste water into the pits. Additionally, due to the high pH, presence of organic solvents, the quantity of material involved and the time that this waste disposal method has been operating, you are directed to provide this office with an assessment which describes:

- The vertical and horizontal extent of the soils with a pH greater than 9.
- The source of the organic materials found in the water and the east wall of the northern pit.
- The likely impact of these materials on the ground water.

The report of the assessment's findings should be submitted to this office by February 19, 1991.

If you wish to continue your acetylene generation operation, you must obtain an Industrial Waste permit and redirect the waste water to the sewer system or other suitable offsite disposal system. Due to the high solids content and scale forming nature of calcium salts, if you wish to discharge the waste water to the sewer system, you will be required to install

pretreatment system to prevent scale build-up in the sewer system. If you wish to haul the material away or use an alternate type of disposal system, you must demonstrate that your waste water producing operations will not negatively impact the environment or public or private property. For non-sewer discharges, the permit requirements may be waived depending on the specific disposal methods. Enclosed are permit applications and instructions for obtaining an Industrial Waste Discharge Permit for a sewer discharge.

While your Industrial Waste Discharge Permit application is being processed, no waste water may be discharged to the sludge pits. As an interim measure, this office may approve a temporary method which allows your facility to remain in production, but which prevents any waste water from entering the pits or being disposed of in a manner which could adversely affect the environment.

You may contact Mr. John Hunter or Mr. Dave Klunk at this office if you have any questions or need any assistance regarding this letter.

Sincerely,
ROBERT C. WILSON, FIRE CHIEF

Stan Boettcher
Fire Marshal

FIRE DEPARTMENT OF THE
CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION • (213) 944-9713
11300 GREENSTONE AVE. • SANTA FE SPRINGS 90670-4619

January, 8, 1991

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Liquid Air
8832 Dice Rd.
Santa Fe Springs, CA 90670

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Cease and Desist

Dear Mr. Pebler:

Our inspections on 12/17/90 and 12/18/90, found that you are currently discharging waste water to unlined pits at the eastern portion of your facility. Several samples of soil and water from the pits were taken for laboratory analysis of pH, alkalinity, heavy metals and organic solvents. The liquid being discharged to the southern pit and the water in the pit were field tested with pH paper and found to have a pH between 12 and 13. The City of Santa Fe Springs does not permit waste water with a pH greater than 9 to be discharged to the ground.

Due to the excessively high pH of the waste water, you are directed to immediately stop discharging the waste water into the pits. Additionally, due to the high pH, presence of organic solvents, the quantity of material involved and the time that this waste disposal method has been operating, you are directed to provide this office with an assessment which describes:

- The vertical and horizontal extent of the soils with a pH greater than 9.
- The source of the organic materials found in the water and the east wall of the northern pit.
- The likely impact of these materials on the ground water.

The report of the assessment's findings should be submitted to this office by February 19, 1991.

If you wish to continue your acetylene generation operation, you must obtain an Industrial Waste permit and redirect the waste water to the sewer system or other suitable offsite disposal system. Due to the high solids content and scale forming nature of calcium salts, if you wish to discharge the waste water to the sewer system, you will be required to install

pretreatment system to prevent scale build-up in the sewer system. If you wish to haul the material away or use an alternate type of disposal system, you must demonstrate that your waste water producing operations will not negatively impact the environment or public or private property. For non-sewer discharges, the permit requirements may be waived depending on the specific disposal methods. Enclosed are permit applications and instructions for obtaining an Industrial Waste Discharge Permit for a sewer discharge.

While your Industrial Waste Discharge Permit application is being processed, no waste water may be discharged to the sludge pits. As an interim measure, this office may approve a temporary method which allows your facility to remain in production, but which prevents any waste water from entering the pits or being disposed of in a manner which could adversely affect the environment.

You may contact Mr. John Hunter or Mr. Dave Klunk at this office if you have any questions or need any assistance regarding this letter.

Sincerely,
ROBERT C. WILSON, FIRE CHIEF

Stan Boettcher
Fire Marshal

INVESTIGATION WORKSHEET

DATE & TIME OF COMPLAINT: 3/9/88 11:15 AM

INVESTIGATION BY: ON:

FIRM	COMPLAINANT
NAME: LIQUID AIR	NAME: JOHN HOSTAK
ADDRESS: 8832 DICE RD. SANTA FE SPRINGS	ADDRESS: CALIFORNIA DEPT OF HEALTH SERVICES
PHONE:	PHONE: 213/620-6187

COMPLAINT: Carbide Powder deposited off site near railroad tracks. Appears to be a result of sloppy loading operations rather than wind blown dust. possible CAOH

REPORT: Minor Amounts of calcium hydroxide slurry were carried off site by bull dozer tracks. Area was cleaned up. During inspection ≈ 50 55-gallon drums were noticed being stored illegally. Drums were rusted, leaky, not labelled and stored for greater than 90 days. Drums were said to contain waste oil and some solvent based mixtures. Also noted was an area approx. 15' x 30' that was contaminated with waste solvents and paint. Years ago, it was common practice to dump waste solutions in this area. Practice is not currently being used. IT corp. was hired under contract to clean up site. County Health notified, By phone & letter.

WITNESSES – CONTACTS

	NAME	ADDRESS	POSITION	PHONE
1				
2				

REQUEST FOR: I-NUMBER [X] DATA CHANGE [ ]

DO NOT TERMINATE I# 225-1H
SEE BELOW

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. I-225-1H

Name LIQUID AIR INC.

Address 8832 S. DICE Rd. Zip Code

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name M.G. BURDETT GAS PROD.

Address 8832 S. DICE Rd. Zip Code 90670

Region-City 1H Status + Permit No.

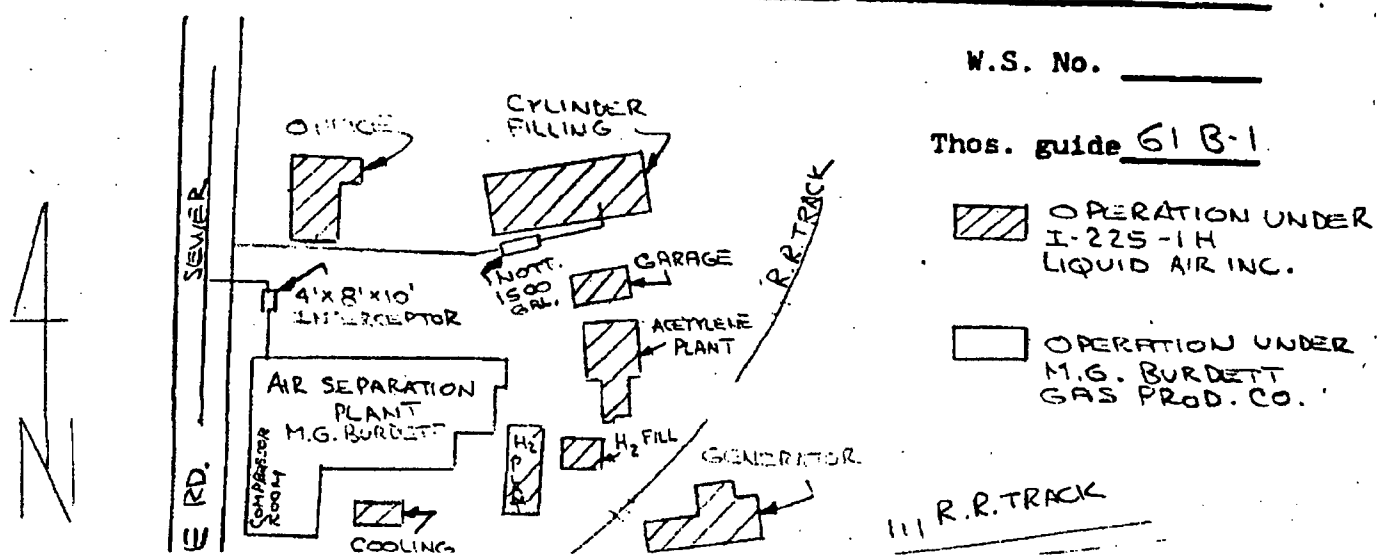
Classif. 127 SMD 0860.15 Disp. Code 1

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets _____ & _____

W.S. No. _____

Thos. guide 61 B-1



DICE 02241

3/1.

LAW OFFICES
BEVERIDGE & DIAMOND
A PARTNERSHIP INCLUDING A PROFESSIONAL CORPORATION
SUITE 3400
ONE SANSOME STREET
SAN FRANCISCO, CA 94104-4438
(415) 397-0100
TELECOPIER (415) 397-4238

JAMES L. MEEDER

BEVERIDGE & DIAMOND, P.C.
SUITE 700
1350 I STREET, N.W.
WASHINGTON, D.C. 20005-3311
(202) 789-6000

40TH FLOOR
437 MADISON AVENUE
NEW YORK, N.Y. 10022-7380
(212) 702-5400

BEVERIDGE & DIAMOND
ONE BRIDGE PLAZA
FORT LEE, N.J. 07024-7502
(201) 585-8162

February 19, 1993

By Facsimile and Federal Express

William Jones
Manager, Investigative Section
Health Hazardous Materials Division
County of Los Angeles Fire Department
5825 Rickenbacker Rd.
Commerce, CA 90040

Re: Liquid Air Corporation, 8832 Dice Rd.
Santa Fe Springs Facility

Dear Mr. Jones:

This letter follows my letter on February 17, 1993, and encloses the reports and documents we discussed on February 16, 1993, concerning the condition of pit area.

I understand that the copy of the Conceptual Closure Plan prepared by Liquid Air's environmental consultants, Kennedy/Jenks Consultants, dated September 4, 1992, given to Mr. Klinger last week contained a report which was partially blacked out when the pages with highlighted passages were copied. Enclosed is a clean copy of that report entitled "Stability Analysis for Open Pit," Triad Geotechnical Consultants, Inc., dated May 13, 1991. A copy of Triad's supplemental report, "Grading Recommendations & Specifications for Open Pit," dated July 8, 1991, is also enclosed for your information. As both reports explain, in 1991 five soil borings were drilled in the bottom of the pit to determine the vertical extent of the hydrated lime. No lime was encountered below the bottom of the pit.

Also enclosed is a letter dated December 31, 1992, from the County of Los Angeles Department of Public Works confirming completion of a 1990 site investigation and remediaton of a fuel pipe leak tank and a small paint spill into the hydrated lime pond. The final report entitled "Remediation of Hydrocarbon Contaminated Soil and Hydrated Lime," dated April 23, 1990, is attached to the County's letter. Liquid Air voluntarily initiated this investigation and clean up when it discovered the fuel pipe leak and the paint spill occurred.

Finally, Liquid Air's consultant, Kennedy/Jenks is still gathering existing underground well data on ph for the area. As soon as that data becomes available it will be forwarded to you.

If you have any questions, please give me a call.

Very truly yours,

James L. Meeder

JLM:sb
Enclosures

cc: Robert Predmore, Liquid Air (w/Out Encl. and By Facsimile)
Brian Leger, Liquid Air (w/Out Encl. and By Facsimile)
David Simon, Liquid Air (w/ Encl. and By Facsimile)

I-0-25

LIQUID AIR INC.

Divisions:
American Cryogenics
Industrial Air Products Co.

One Embarcadero Center
San Francisco, California 94111
Phone (415) 433-6210, Telex W.U. 340421

April 21, 1971

Department of County Engineers
Project Planning & Pollution Control Division
7639 South Painter avenue
Whittier, California 90602

Attn: R. W. Hartley

Dear Sir:

Included is the information that you requested concerning our air separation plant in Santa Fe Springs.

We have been delayed in relaying this information to you; therefore, we would like to summarize our disposal problem at this plant.

Our concern in a plant of this type is the disposal of approximately 18,000 gallons per month of a spent caustic solution that contains 2 to 3 percent sodium hydroxide and 10-11 percent of sodium carbonates. Spent caustic solution is obtained from a scrubbing system for plant air and is placed in a holding tank before disposal. Rate of disposal, time period of disposal, and dilution with water can easily be controlled with this system.

At the present time we have this solution removed by Southern California Chemical Company, who use it in their own process. We would like permission to dispose of this spent caustic solution into the sewer. Diluted with other water wastes the concentration of sodium hydroxide would be approximately 0.14% or lower and the pH, would probably be in the 8-9 pH range.

Our plant manager in Santa Fe Springs, Mr. Ray Wilson, telephone no. 685-4960 will be available to answer any questions you may have.

Thank you for your assistance in this problem.

Yours very truly,

LIQUID AIR INC.

A. W. Sass
Manager, Instrument Engineering

AWS;mdc
Enclosure:

cc: R. Wilson
J. Smith

Industrial Waste Statement
Company - American Cryogenics
Location - Dice Road, Santa Fe Springs

1. Type of Business: Manufacture of industrial gases in air separation plants.

2. Type of Facilities Producing Liquid Waste:
Caustic scrubbing towers for plant air.

3. Chemicals involved: Sodium hydroxide, sodium carbonate, sodium bicarbonate in water solution.

4. Solid Wastes: None

5. Liquid Wastes:

a. Types
Water solution containing sodium hydroxide, sodium carbonate, and sodium bicarbonate.

b. Rate of Flow
0.5 gallons/minute

c. Peak Rate of Flow
1.0 gallons/minute

d. Water Consumed
18,000 gallons/month

e. Floor Wash through interceptor
once/month

f. Gallons used in Floor Wash
5 gallons

g. Rinse Tanks
none

h. Caustic Process Tanks
gallonage 1. 1-1000 gallon tank
2. 1-800 gallon tank

Position in Process: Scrubbing tanks on air inlet.

Frequency of Dumping: Dumped into 3000 gallon holding tank where rate of disposal can be controlled.

Disposal of Spent Solutions:
Private Contractor Haulage

Concentrations: Final - 2-3% Sodium Hydroxide
10-11% Sodium Carbonates
Water

i. Steam Cleaner
Portable unit used once/week for two hours in cleaning truck motors - rate of flow - 500#/hour steam

j. Car or Truck Wash
none

k. Cooling Towers

Capacity -	43,000 gallons
Bleed-Off -	10,000 gallons/day
Chemicals -	low chromate zinc - 15 ppm
	H_2SO_4 -- PH of 6.5 - 7.0
	Biocide - Sodium
	Penta-Clorophenate less 1ppm

l. Storage Tanks
none

m. One Pass Cooling Water
none

n. Dynamometer
none

o. Rain Water
220,000 sq. ft. of drainage not to sewer

p. Temperature of Liquid Wastes
ambient

q. Degreasers
none

r. Welders
none

s. Plating
none

t. Air Scrubbers
described in "H" overleaf

u. Pickling
none

v. Quench Tanks
none

6. Spent Caustic: From air scrubbers to be disposed in sewer with no neutralization.

a. PH of spent caustic - approx. 12.
PH of total sewer product approx. 8-9.

7. Solvents: None

Spent Caustic will be discharged into sewer at large volumes during peak hours only.

Ray Wilson
Plant Manager
9-22-71

HISTORY- LIQUID AIR INC.

8832 Dice Road, Santa Fe Springs, CA 90670

02/03/46- The Los Angeles County Engineers Dept issued IW permit #6 to the Burdett Oxygen Company of Cleveland Inc., to dispose of IW from their plant at 2032 Dice Road, Los Nietos, CA, subject to conditions and limitations that were attached to the permit. The conditions and limitations included that IW shall consist solely of carbide sludge from the manufacture of acetylene gas and also sludge shall be confined in the pits on the property for the permittee. The pits were to be 10 feet deep.

9/11/46- There was a memorandum written from Mr. Wayne Clark at the Los Angeles County Engineers Dept regarding the Burdett Oxygen Company. In this memo he mentioned that the above company was planning to erect an acetylene generating plant on a 4 and 3/4 acre site on the east side of Normandie Avenue, between East Road and Caison Street. Industrial waste would consist solely of 50 tons (ultimately 100 tons) per month of spent carbide sludge. The sludge was was to be placed in a dyked sludge bed on the property. No liquid would be permitted to run off from the bed. This sludge is the same material commonly known as slaked lime and technically called calcium hydroxide. Domestic sewage would be disposed of by a septic tank and leaching bed. The nearest sanitary sewer is a trunk line in Caison Street, 2500 feet south of the plant site.

11/46- The Los Angeles County Health Dept recommended approval of the application of the Burdett Oxygen Company, to dispose of IW pursuant to Los Angeles County Ordinance No. 614, as amended. They mentioned that the disposal of carbide sludge under the conditions set forth in this company's application should not create any conditions detrimental to the public health.

11/16/48- Waste sludge is being dumped in pit at eastern side of property. The pH was 10.

05/20/49- pH of the discharge was 7.

04/09/50- Approximately 5 gallons of caustic sludge are being disposed of daily.

03/02/51- Northern pit being expanded.

01/11/52- Approximately 1000 gallons of lime water per day being discharged into pit.

02/20/62- Company plans to hook up to the sewer. The material currently discharging into the lime pit will not be considered since the high solids and pH may cause problems in the sewer which was a dead end line.

03/29/63*- All caustic sludge is being purchased by So. Cal. Chemical (Not clear if this is the carbide sludge).

05/20/64- Permit issued to American Cryogenics to discharge wastewater from gas compression and liquifaction operations to the sewer.

01/19/71- Letter from contractor indicates that residue from acetylene generator is periodically hauled away by a disposal service.

Circa/73- 27 tons per day produced from the acetylene plant. It is hauled away approximately once a month.

05/05/76- Lime draining off property. Water Board classifies the lime as a Group II waste and directs that it be disposed of at a Calss II disposal site.

07/09/76- Cal. Regional Water Quality Control Board wrote a letter to Liquid Air regarding an inspection made on Jul 2, 1976. It was disclosed that this company intermittently discharged cooling water form their acetylene-filling operations into the unlined ditch south of their property. In addition, it was learned that they also proposed to discharge acetylene production process wastes into the same ditch. It was requested that they provide a written report to this Board, detailing the method of disposal of the above-described wastes decided upon.

Water Board requires that an NPDES permit be obtained for the discharge to the ditch.

11/4/77- Cal. Regional Water Quality Board issued NPDES permit No. (CA0058335) (CI6301) of wastes from the facility at 8832 Dice Road. At this time they mentioned the date Oct 31, 1977 , when this Board's staff found extensive white deposits in the unlined ditch south of the property. These deposits were traced to the discharge point which the pH was 11.9. It was requested in this letter that Liquid Air Inc. should immediately undertake cleanup work, and take necessary measures to prevent similar incidents from recurring in future. They also requested that this company should submit a written technical report to this Board by Nov 21, 1977, providing details of the preventive measures they have adopted. There were no further records available after this date concerning this matter.

Discharge to ditch had pH of 11.9. Water Board limits are between 6 and 9.

12/17/90- Several samples were taken from the pond and the pit on Dec 18, 1990. Samples were taken to the lab for further analysis. Field test of a sample of the waste pond showed a pH of between 12 and 13.

*Last record of discharge to pits was on 03/29/63. All subsequent records show that sludge is stored in a tank, and hauled away on a regular basis (see survey on 02/08/77).

INSPECTION CHECK LIST	
Name of Inspector:	Date:

Yes	No	
[ ]	[ ]	Are areas kept neat and clean from lime deposits?
[ ]	[ ]	Is the facility orderly and neat. Are berms intact?
[ ]	[ ]	Is process debris removed regularly?
[ ]	[ ]	Is the area clear of excessive dust from industrial operations?
[ ]	[ ]	Is there evidence of leaks and drips from equipment and machinery?
[ ]	[ ]	Are employees regularly informed of the importance of good housekeeping?
[ ]	[ ]	Are catch basins & storm conveyance pipes cleaned at the appropriate intervals?
[ ]	[ ]	Is the spill prevention and response team performing assigned responsibilities?
[ ]	[ ]	Are appropriate spill containment and cleanup materials kept on-site and in convenient locations?
[ ]	[ ]	Are cleanup procedures for spills followed regularly and correctly?
[ ]	[ ]	Are used absorbent materials removed and disposed in a timely manner?
[ ]	[ ]	Are personnel regularly trained in the use of spill control materials?
[ ]	[ ]	Is exposed piping and process equipment regularly inspected and/or tested to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters?
[ ]	[ ]	Are drainage ditches or the areas around the outfall(s) free of erosion?

INSPECTION REPORT

STORM WATER POLLUTION PREVENTION PLAN

I. GENERAL INFORMATION

Facility:	Liquid Air Corp.	Date:	
Street Address:	8832 Dice Road	Time of Inspection:	
City/State:	Santa Fe Springs, CA	Rainfall Start Time:	
Inspection Activity		Season	
Observation Visual	[ ]	Wet (Oct-Apr)	[ ]
Sampling	[ ]	Dry (May-Sept)	[ ]

II. OBSERVATIONS/INSPECTIONS

Activity Description (Location, Conclusions)
Follow-up Required Yes [ ] No [ ] (If yes, described below)

Inspector_____

STORM WATER SAMPLING

FIELD DATA SHEET

SHEET NO. _____
OUTFALL ID NO.: _____
DATE: _____
TIME: _____

GENERAL INFORMATION:

WEATHER: _____ INSPECTION TEAM: _____

TIME SINCE LAST RAIN: >72 hrs <72 hrs

QUANTITY OF LAST RAIN: ≥0.1 in <0.1

FIELD SITE DESCRIPTION LOCATION: _____

OPEN CHANNEL MANHOLE OUTFALL OTHER _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN OTHER _____

IF KNOWN, LIST THEM: _____

FLOW ESTIMATION: FLOW OBSERVED YES NO APPROXIMATE CHANNEL WIDTH OR PIPE DIAMETER: _____

METHOD: _____ WIDTH/DEPTH/VELOCITY

1.) WIDTH OF WATER SURFACE _____ FEET
2.) DEPTH OF WATER _____ FEET
3.) VELOCITY (__FEET IN __ SEC) = _____ FT/SEC
4.) FLOW = 1 x 2 x 3 = _____ CFS

_____ BUCKET

1.) TIME TO FILL 5-GALLON BUCKET = _____ SEC
2.) FLOW RATE = 0.67 ÷ TIME = _____ CFS

[5 GALLONS = 0.67 CUBIC FEET]

VISUAL OBSERVATIONS: PHOTO TAKEN NO YES...ROLL(S) AND PHOTO NUMBER(S) _____

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER ____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER _____

CLARITY: CLEAR CLOUDY OPAQUE SUSPENDED SOLIDS

FLOATABLES: NONE OILY SHEEN GARBAGE/SEWAGE OTHER _____

DEPOSITS/STAINS: NONE SEDIMENTS OILY OTHER _____

VEGETATION CONDITION: NONE NORMAL EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: NORMAL CONCRETE CRACKING/SPAULING METAL CORROSION OTHER _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE FISH CRAYFISH OTHER _____

FIELD ANALYSES:

WATER TEMP: _____ degrees C

pH: _____

Conductivity: _____ µmhos/cm (reading)

_____ µmhos/cm (adjusted for temp.)

FIELD ANALYSES:

EQUIVALENT PHENOLS: _____ mg/L

TOTAL CHLORINE RESIDUAL: _____ mg/L

DISSOLVED COPPER: _____ mg/L

DETERGENTS (MBAS): _____ mg/L

AMMONIA NITROGEN: _____ mg/L

GLYCOL: _____ mg/L (optional)

LABORATORY SAMPLE COLLECTED YES NO
IF YES ATTACH COPY OF CHAIN-OF-CUSTODY RECORD

COMMENTS: _____

DATA SHEET FILLED OUT BY (SIGNATURE): _____

#4

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

PRC

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Analysis: Total Petroleum Hydrocarbons : Waste Samples

Sample Description	Sample Number	Detection Limits ppm	Gas ppm	Diesel ppm
#4	9050963	5	220	36

N.D. = None Detected above stated Detection Limit

This analysis was performed using EPA Methods 3550 with 8015 for hydrocarbon detection. Method 8015 was modified to meet the specifications of the California LUFT Manual.

Del Mar Analytical

Gary Steube
Laboratory Director

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Analysis: Total Lead: Liquid Samples

Sample Description	Sample Number	Detection Limit mg/Kg	Sample Result mg/Kg
#4	9050963	1	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 7420.

#10

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 10	9050969

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	2500
Trichloroethene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
trans-1,2 Dichloroethene	100	N.D.
Methylene Chloride	100	N.D.
Chloroform	100	N.D.
Bromodichloromethane	100	N.D.
Dibromochloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Chloromethane	100	N.D.
Chloroethane	100	N.D.
Vinyl Chloride	100	N.D.
1,2-Dichloropropane	100	N.D.
1,3-Dichloropropenes	100	N.D.
Carbon Tetrachloride	100	N.D.
Trichlorofluoromethane	500	N.D.
1,1,2-Trichloroethane	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 10	9050969

Volatile Organics by Mass Spectrometry

	Detection Limit ug/L	Sample Results ug/L
Benzene	100	N.D.
Toluene	100	N.D.
Ethylbenzene	100	N.D.
Chlorobenzene	100	N.D.
Xylenes (sum of 3 isomers)	100	N.D.
Acetone	500	N.D.
2-Butanone	500	N.D
Carbon Disulfide	200	N.D.
Vinyl Acetate	200	N.D.
4-Methyl-2-pentanone	200	N.D.
2-Hexanone	200	N.D.
Styrene	200	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	89 %
Toluene-d8	93 %
4-Bromofluorobenzene	104 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Attention: Walt Pouchot

Project: Liquid Air Corporation

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Sample Description
#10

Sample Number
9050969

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	41
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	11
Calcium	(7140)	NA	NA	1.0	56
Sodium	(7770)	NA	NA	1.0	17
Magnesium	(7450)	NA	NA	1.0	21
Potassium	(7610)	NA	NA	1.0	4.8

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/19/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #10	9050969

PCBs

	Detection Limit mg/Kg	Sample Results mg/Kg
PCB-1016	10	N.D.
PCB-1221	10	N.D.
PCB-1232	10	N.D.
PCB-1242	10	N.D.
PCB-1248	10	N.D.
PCB-1254	10	N.D.
PCB-1260	10	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 8080.

Form Approved OMB No. 2050—0039 (Expires 9-30-91) and Front of Page 7 Sacramento, California

Please print or type. (Form designed for use on elite (12-pitch typewriter).

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000021160 — Manifest Document No.: 27960

2. Page 1 of 2 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Liquid Air Corporation
8832 Dice Rd.
Santa Fe Springs, CA 90670 (213)9451383

4. Generator's Phone

A. State Manifest Document Number: 88327960

B. State Generator's ID: SYCHB30641202

5. Transporter 1 Company Name: Ensco Environmental Service — 6. US EPA ID Number: CAD980815054

C. State Transporter's ID

D. Transporter's Phone: (714) 756-8666

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Oil&Solvent Process Co.
1704 West First St.
Asuza, CA 91702

10. US EPA ID Number: CAD008302903

G. State Facility's ID

H. Facility's Phone: (818) 334-5117

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Liquid NOS, ORM-E NA 9189/F001	9	DM	430	G	State 211 / EPA/Other F001
b. California Regulated Waste Only (Ethylene Glycol Liquid)	4	DM	155	G	State 343 / EPA/Other NA
c. RQ Waste Combustible Liquid NOS Combustible Liquid, NA 1993/F001	1	DM	50	G	State 211 / EPA/Other F001
d. RQ Waste Combustible Liquid NOS Combustible Liquid, NA 1993/F003	1	DM	50	G	State 212/213 / EPA/Other F003

J. Additional Descriptions for Materials Listed Above
See attached Master List

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear appropriate protective clothing

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name — Signature — Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

88327960

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

DICE 02259

Form Approved OMB No. 2050-0039 Expires 9-30-88

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.: CA1 000021160
Manifest Document No.: 27960
22. Page: 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name
Liquid Air Corporation
8832 Dice Rd.
Santa Fe Springs, CA 90670

L. State Manifest Document Number: 88327960
M. State Generator's ID: SYCHB30641202

24. Transporter ___ Company Name: Ensco Environmental Services
25. US EPA ID Number: CAD980815054
N. State Transporter's ID
O. Transporter's Phone: (714)756-8666

26. Transporter ___ Company Name
27. US EPA ID Number
P. State Transporter's ID
Q. Transporter's Phone

	28. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	RQ Hazardous Waste Liquid NOS, ORM-E NA 9189/F003	X	01	DM	25	G	214 F003
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above
See attached Master List

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
Wear appropriate protective clothing

GENERATOR

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

34. Transporter ___ Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

FACILITY

35. Discrepancy Indication Space

Style F16 REV-6 Labelmaster, Div of American Labelmark Co., Chicago, IL 60646 312 478-0900

EPA Form 8700-22A (Rev 9-86) Previous edition is obsolete

DICE 02260

MASTER LIST

Packaging Date

Generator LIQUID AIR CORPORATION Project Number 5515

LINE #	Drum Type	Drum #	Description	WPS #	Manifest #
11A)	DOT 55GAL	18-26	RQ HAZARDOUS WASTE LIQUID.NOS ORM-E	LAXJ36423	88327960
11B)	DOT SALVAGE DRUM METAL	27,29-30	CALIFORNIA REGULATED WASTE ONLY (ETHYLENE GLYCOL LIQUID)	LAXJ36411	
11B)	17E 55gal	28		LAXJ36411	
11C)	DOT SALVAGE DRUM METAL	31	RQ WASTE COMBUSTIBLE LIQUID NOS	LAXJ36410	
11D)	17E 55gal	32	RQ WASTE COMBUSTIBLE LIQUID NOS	LAXJ36424	
28A)	17E 30gal	33	RQ HAZARDOUS WASTE LIQUID NOS	LAXJ36412	

Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36423

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Liquid Air Corp.
2. Generator USEPA ID: CALOOOO21165
3. Facility Address: 8832 Dice Rd. Santa Fe Springs CA
4. Generator State ID: _____
5. Zip Code: _____
6. Technical Contact: Tom Barber
7. Title: Plant Manager
8. Phone: (213) 945 - 1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO ENVIOR MENTAL SERVICES
3. Phone: (714) 756 - 8666
4. Address: 17062 Murphy Ave. Irvine CA 92714 c/o Chemical Services Department Job # 5505
5. Zip Code: 92714

C. 1. NAME OF WASTE Trichloroethane

2. PROCESS GENERATING WASTE Cleaning solvent. for Degreasing

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, DO NOT COMPLETE this form. Contact your Chemical Waste Management, Inc. sales representative for assistance

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
Yellowish Green	☒ No ☐ Yes If known, describe:	☐ Solid ☐ Semi-Solid ☒ Liquid ☐ Powder Other:	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.2 - 1.4	☒ Yes ☐ No Volume: 100 %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☒ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ N/

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☒ ≥ 200°F ☐ None ☐ Closed Cup ☐ Open Cu

E. CHEMICAL COMPOSITION

1.	RANGE MIN.	- MAX	
Trichloroethane	TR	- 50	%
Dichloroethane	TR	- 50	%
Water	TR	- 50	%
Petroleum Hydrocarbons (NON Solvents)	TR	- 3	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: _____ %

2. Indicate if this waste contains any of the following:

	NONE	or	LESS THAN	or	ACTUAL
PCB's	☒		☐ < 50 ppm		_____ ppm
Cyanides	☒		☐ < 50 ppm		_____ ppm
Phenolics	☒		☐ < 50 ppm		_____ ppm
Sulfides	☒		☐ < 50 ppm		_____ ppm

F. METALS Indicate if this waste contains any c the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)		or	ACTUAL
Arsenic	☒ < 5	☐ < 500		_____
Barium	☒ < 100			_____
Cadmium	☒ < 1	☐ < 100		_____
Chromium	☒ < 5			_____
Lead	☒ < 5	☐ < 500		_____
Mercury	☒ < 0.2	☐ < 20		_____
Selenium	☒ < 1	☐ < 100		_____
Silver	☒ < 5			_____
Chromium-Hex	☒ < 5	☐ < 500		_____
Copper	☒ < 5			_____
Nickel	☒ < 5	☐ < 134		_____
Thallium	☒ < 5	☐ < 130		_____
Zinc	☒ < 5			_____
_____	☐ <			_____
_____	☐ <			_____
_____	☐ <			_____

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

LAX J 36423
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☒ Yes ☐ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☐ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

		LESS THAN	or	ACTUAL
Beryllium	☐ <	5000 ppm		____ ppm
Potassium	☐ <	5000 ppm		____ ppm
Sodium	☐ <	5000 ppm		____ ppm
Total Bromine	☐ <	2 %		____ %
Total Chlorine	☐ <	35 %		50 %
Total Fluorine	☐ <	1 %		____ %
Total Sulfur				____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: 50
3. Viscosity (cps): N/A @ ☐ _____ °F ☐ 100°F ☐ 150°
4. Ash: N/A % 5. Settleable solids: <10%
6. Vapor Pressure @ STP (mm/Hg): N/A
7. Is this waste a pumpable liquid? ☒ Yes ☐ No
   Type of pump? Centrifugal
8. Can this waste be heated to improve flow? ☒ Yes ☐ No
9. Is this waste soluble in water? ☒ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☒ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 2000 / gals
3. Proper Shipping Name: Hazardous Waste Liquid NOS 01
4. Hazard Class: ORM-E 5. I.D. #: NA 9189
6. Additional Description: (Trichloroethane / Dichloroethane Wash Solvent Spent
7. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Solid ☒ Drum (Type/Size): DT / 55 Other: _____
8. CERCLA Reportable Quantity (RQ): 100 9. RQ Units (lb/kg): lb
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): F001
12. State Hazardous Waste? ☐ Yes ☐ No 13. State Hazardous Waste Number(s): 211

K. SPECIAL HANDLING INFORMATION See Attached Analytical —

☐ Additional Page(s) Attache

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true ar accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. _____ Signature 2. _____ Title

3. _____ Name (Type or Print) 4. _____ Date

Side 2 of 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

DICE 02263

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LBX J 36423

Waste Profile Sheet Code

CWM Location of Original: (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #:

This completed form must be returned, with the representative sample, to:

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Wast Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obta and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or a equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your samp along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, pleas refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile She referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile She referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code:		1. Waste Profile Sheet Code:
2. [redacted] Generator's Name:	Liquid Air Corp.	2. Generator's Name:
3. [redacted] Name of Waste:	Trichloroethane / Dichloromethane Spent	3. Name of Waste:
4. [redacted] Sample Hour/Date:	5/30/89	4. Sample Hour/Date:
5. [redacted] Sampler's Signature:	W. Pouchot	5. Sampler's Signature:

6. Print Sampler's Name: W. Pouchot
7. Sampler's Title: Chemical Services Manager
8. Sampler's Employer (if CWM, see D. below): ENSCO Environmental Services

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in whi Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the informati noted above.

1. Witness' Signature:
2. Witness' Name:
3. Witness' Title:
4. Witness' Employer:
5. Date:

Form CWM-51 © 1987 Chemical Waste Management Inc

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/13/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #21	9050980

Halogenated Volatile Organic Compounds by GC/Hall

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	0.5	N.D.
1,1,1-Trichloroethane	0.5	3.4
Trichloroethene	0.5	N.D.
1,1-Dichloroethane	0.5	N.D.
1,2-Dichloroethane	0.5	N.D.
1,1-Dichloroethene	0.5	N.D.
trans-1,2-Dichloroethene	0.5	N.D.
Methylene Chloride	0.5	N.D.
Chloroform	0.5	N.D.
Bromodichloromethane	0.5	N.D.
Dibromochloromethane	0.5	N.D.
Bromoform	0.5	N.D.
Bromomethane	0.5	N.D.
Chloromethane	0.5	N.D.
Chloroethane	0.5	N.D.
Vinyl Chloride	0.5	N.D.
1,2-Dichloropropane	0.5	N.D.
1,3-Dichloropropenes	0.5	N.D.
Carbon Tetrachloride	0.5	N.D.
1,1,2-Trichloroethane	0.5	N.D.
1,1,2,2-Tetrachloroethane	0.5	N.D.
2-Chloroethylvinyl ether	0.5	N.D.
Chlorobenzene	0.5	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 601.

Del Mar Analytical
18102 Sky Park South, Suite F. • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/13/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #23	9050982

Halogenated Volatile Organic Compounds by GC/Hall

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	19000
Trichloroethene	100	N.D.
1,1-Dichloroethane	100	50000
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	640
trans-1,2-Dichloroethene	100	N.D.
Methylene Chloride	100	N.D.
Chloroform	100	N.D.
Bromodichloromethane	100	N.D.
Dibromochloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Chloromethane	100	N.D.
Chloroethane	100	N.D.
Vinyl Chloride	100	N.D.
1,2-Dichloropropane	100	N.D.
1,3-Dichloropropenes	100	N.D.
Carbon Tetrachloride	100	N.D.
1,1,2-Trichloroethane	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chlorobenzene	100	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 601.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/13/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #22	9050981

Halogenated Volatile Organic Compounds by GC/Hall

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	0.5	N.D.
1,1,1-Trichloroethane	0.5	5.6
Trichloroethene	0.5	N.D.
1,1-Dichloroethane	0.5	11
1,2-Dichloroethane	0.5	21
1,1-Dichloroethene	0.5	1.8
trans-1,2-Dichloroethene	0.5	N.D.
Methylene Chloride	0.5	N.D.
Chloroform	0.5	N.D.
Bromodichloromethane	0.5	N.D.
Dibromochloromethane	0.5	N.D.
Bromoform	0.5	N.D.
Bromomethane	0.5	N.D.
Chloromethane	0.5	N.D.
Chloroethane	0.5	N.D.
Vinyl Chloride	0.5	N.D.
1,2-Dichloropropane	0.5	0.8
1,3-Dichloropropenes	0.5	N.D.
Carbon Tetrachloride	0.5	N.D.
1,1,2-Trichloroethane	0.5	99
1,1,2,2-Tetrachloroethane	0.5	N.D.
2-Chloroethylvinyl ether	0.5	N.D.
Chlorobenzene	0.5	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 601.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/13/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #24	9050983

Halogenated Volatile Organic Compounds by GC/Hall

	Detection Limit ug/L	Sample Results ug/L
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	39000
Trichloroethene	100	N.D.
1,1-Dichloroethane	100	15000
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	560-
trans-1,2-Dichloroethene	100	N.D.
Methylene Chloride	100	N.D.
Chloroform	100	N.D.
Bromodichloromethane	100	N.D.
Dibromochloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Chloromethane	100	N.D.
Chloroethane	100	N.D.
Vinyl Chloride	100	N.D.
1,2-Dichloropropane	100	N.D.
1,3-Dichloropropenes	100	N.D.
Carbon Tetrachloride	100	N.D.
1,1,2-Trichloroethane	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chlorobenzene	100	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 601.

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Services
Toxic Substances Control Division
Sacramento, California

R

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAL000021160 Manifest Document No. 217913

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Liquid Air Corp
8832 Dice Rd Santa Fe Springs CA 90670

4. Generator's Phone (213) 945-5585

A. State Manifest Document Number 88327963

B. State Generator's ID SYCHB3D641202

5. Transporter 1 Company Name PACIFIC ENVIRONMENTAL MGT 6. US EPA ID Number CAD982053779

C. State Transporter's ID 010792

D. Transporter's Phone (213) 324-2445

7. Transporter 2 Company Name 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Crosby & Overton
1620 W. 16th St
Long Beach CA 90813 10. US EPA ID Number CAD028409019

G. State Facility's ID

H. Facility's Phone 213-432-5445

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Sulfuric Acid spent Corrosive UN1832	1	DF	50	G	State 792 EPA/Other D002/D090
b. Waste Corrosive Liquid NOS Corrosive UN1760/D002	1	DM	10	G	State 123 EPA/Other D002
c. Waste Potassium Hydroxide liquid Corrosive UN1814 /D002	2	DM	15	G	State 122 EPA/Other D002
d. Waste Potassium Hydroxide liquid Corrosive UN1814 /D002	1	DF	50	G	State 122 EPA/Other D002

J. Additional Descriptions for Materials Listed Above
A. Drum #150 CAL EH Permit # 4-89071002
B. Drum #151 D. Drum #154
C. Drum #152-155 See Attached Profile/Analytical

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Alternate TSDF
Approiate Technology II 619-421-1175
1700 Maxwell Rd EPA # CAT080010101
Chula Vista CA 92011

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T. F. BARBER Signature: [signature] Month Day Year: 07 28 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Scott Snyder Signature: [signature] Month Day Year: 07 28 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Signature Month Day Year

GENERATOR

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

88327963

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

Blue: GENERATOR SENDS THIS COPY TO DOHS WITHIN 30 DAYS
To: P.O. Box 400, Sacramento, CA 95812-0400

DICE 02269

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
107 SOUTH BROADWAY, ROOM 7011
LOS ANGELES, CA 90012
(213) 620-2380

May 15, 1987

RECEIVED
JUL 10 1989
TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

Dear Permittee:

On July 8, 1987, new state and federal land disposal restrictions are currently scheduled to go into effect. Therefore, activities authorized by this extremely hazardous waste permit may be prohibited after July 8, 1987. The new requirements will supersede any conflicting extremely hazardous waste permits. (See Appendix A to this permit).

Both the existing state requirements and the proposed federal restrictions should be reviewed by waste generators to determine whether their waste treatment or disposal operations (including any extremely hazardous waste permits) will be impacted. State requirements are contained in Health and Safety Code Sections 25122.7 and 25208 et seq., and Article 15 of Chapter 30, Division 4 of Title 22 of the California Administrative Code. The proposed federal regulations can be found in the Federal Register, 40 CFR Part 260 et. al (Environmental Protection Agency), dated November 7, 1986, and December 11, 1986.

Sincerely,

John Hinton, P.E., Chief
Facility Permitting Unit
Southern California Section
Toxic Substances Control Division

RETURN ORIGINAL AND ONE COPY

RECEIVED

JUL 1 0 1989

TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

For Office Use Only:
Permit # 4-89071002
Date Handled 7/10/89
Date Sent 7/10/89
Date Exp 7/10/90
Romeo

WASTE PRODUCER, PLEASE CHECK APPLICABLE PERMIT REQUEST:

✓ New Permit.

___ Renewal Permit (Current Permit No. _____ Date _____)

___ Amendment and (Current Permit No. _____ Date _____)

___ Verbal Permit (No. _____ Date _____)
(If given verbal emergency permit by telephone)

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

Section Offices:

714/744 P Street
Sacramento, CA 95814
(916) 322-2337

2151 Berkeley Way
Berkeley, CA 94704
(415) 540-2043

5545 East Shields Avenue
Fresno, CA 93727
(209) 291-6676

107 South Broadway
Rm. 7011
Los Angeles, CA 90012
(213) 620-2380

APPLICATION FOR
CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT*

Please type or print clearly. Provide all information requested, since omissions will result in delay or denial of permit. Allow 15 days process time from day of receipt.

WASTE PRODUCER:
Name of Firm Liquid Air Corporation
Street and No. (Or P.O. Box) 8832 Dice Rd.
City Santa Fe Springs State CA Zip Code 90760
Telephone No. (213) 945-1383 County Los Angeles
Pick Up Address (If Different) Same

EPA I.D.# CAL000042116O
Applicant TOM BARBER Title PLANT MANAGER

PROPOSED HAULER:
Address
Ensco Environmental Services
~~17062 Murphy Ave~~ 41674 Christy St
~~Irvine~~ CA 92714 Fremont, CA 94538

EPA I.D.# CAD980815054 Hauler Reg. No. 089

PROPOSED DISPOSAL (OR OTHER) FACILITY:
Address
Approiate Technology II
1700 Maxwell Rd.
Chula Vista CA 92011

EPA I.D.# CAT 080016101

PROPOSED METHOD OF DISPOSAL:
Burial ___ Ponding ___ Storage ___ Other (Specify) ___
Treatment (Specify type) Neutralization
Recycle (Specify method of reuse) ___

*Required for handling or disposal of extremely hazardous wastes (Section 66570, Title 22, CAC).

DICE 02271

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

APPLICATION FOR CALIFORNIA EXTREMELY HAZARDOUS WASTE PERMIT

Company Liquid Air City Santa Fe Springs CA Date 7/6/89

ADDITIONAL WASTES

WASTE 2

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	QUANTITY On One Time Basis: Number:	Units:
Sulfuric Acid	30	10	X			

On Year's Permit: Per Disposal (est'd) 500 gals; Per Year (est'd) 2000 gal

Description of Packaging, Containerization and Transport: ☒ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☒ Other Poly Drums

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): ☒ Treatment (Specify): Neutralization ☐ Recycling (Specify method of reuse):

WASTE 3

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	QUANTITY On One Time Basis: Number:	Units:
Nitric Acid	40	20	X			

On Year's Permit: Per Disposal (est'd) 150 gal; Per Year (est'd) 1000 gals

Description of Packaging, Containerization and Transport: ☒ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): ☒ Treatment (Specify): Neutralization ☐ Recycling (Specify method of reuse):

WASTE 4

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	QUANTITY On One Time Basis: Number:	Units:
Potassium Hydroxide Solution	80	50	X			

On Year's Permit: Per Disposal (est'd) 1000 gal; Per Year (est'd) 5000 gals

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): ☐ Treatment (Specify): ☐ Recycling (Specify method of reuse):

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

JUL 1 0 1989

TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

APPLICATION FOR
CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT

DESCRIPTION OF WASTE (Including Composition with Upper and Lower Concentration of Hazardous Components)	CONCENTRATION Upper	Lower	Units, % or ppm	QUANTITY (For year's permit give estimated quantity per disposal and per year)

(Attach page(s) for additional wastes)

DESCRIPTION OF PACKAGING: (Packaging, Containerization)

Drums ____ Cartons ____ Bottles ____ Tank Truck ____

Other ____ Specify method of packaging small containers

Packaging, containerization, and transport of the material shall be in accordance with Title 49, Code of Federal Regulations for hazardous materials, and with regulations of the California Highway Patrol, Title 13, California Administrative Code, for intrastate transport of hazardous materials and, for PCB-containing wastes, in accordance with U.S.E.P.A. regulations set forth in Title 40 CFR Part 761.

PERMIT TO BE USED FOR: (Length of Time)

Single Disposal ____

One Year Maximum for Multiple Disposals X

PERMIT RENEWALS: (Application for renewal of a one-year blanket permit, using this form, must be received at least 15 days prior to expiration date to keep permit in effect)

Signature of Applicant [signature]

Company and City LIQUID AIR CORPORATION - SANTA FE SPRINGS

Date 7-6-89

1/22/81

This permit is subject to the condition(s) stated on Appendix A which is attached.

APPENDIX A

CONDITIONS TO EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT

1. This permit does NOT authorize the disposal of any extremely hazardous waste in a manner which is not in compliance with the limitations, restrictions or prohibitions on the disposal of any hazardous or extremely hazardous waste imposed by state or federal law. Such restrictions include, but are not limited to, those imposed now or in the future by Chapter 6.5 of Division 20 of the California Health and Safety Code (HWCA) (Sections 25100 et seq.)as amended, Article 15 of Chapter 30 of Division 4 of Title 22 of the California Administrative Code,as amended and/or the Resource, Conservation and Recovery Act, (RCRA) (42 USC 6901 et seq.) as amended and regulations adopted pursuant to the HWCA or RCRA.

APPROPRIATE TECHNOLOGIES-II, INC.

1700 MAXWELL ROAD • CHULA VISTA, CALIFORNIA 92011 • (619) 421-1175

WASTE PROFILE

#883279

A. GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
FACILITY ADDRESS: 5933 DICE RD
SANTA FE SPRINGS CA 90670

TRANSPORTER: ENSCO ENVIRONMENTAL SERVICES
TRANSPORTER PHONE (714) 756-8666
GENERATOR U.S. EPA I.D. CAH110000012111160
GENERATOR STATE I.D. SYCHS30641202

TECHNICAL CONTACT: TOM BARBER TITLE: PLANT MANAGER PHONE (213) 945-1383
WASTE STREAM NAME: Alkaline Cleaning solution
PROCESS GENERATING WASTE: INDUSTRIAL GAS MANUFACTURER

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR: CLEAR - WHITE WILL IT FLOW? ☒ YES ☐ NO
PHYSICAL STATE @ 70°F: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER DENSITY: 1.1-1.3
ODOR: ☒ NONE ☐ MILD ☐ STRONG DESCRIBE:
MOISTURE CONTENT %: 100 ☒ WATER ☐ OTHER IGNITABILITY: ☐ YES ☒ NO FLASH POINT: 7200 °F

C. HAZARDOUS WASTE CODES

U.S. EPA HAZARDOUS WASTE: ☐ YES ☒ NO STATE HAZARDOUS WASTE: ☒ YES ☐ NO
U.S. EPA WASTE CODE NO's: NA
STATE WASTE CATEGORY NO's: 123

D. CHEMICAL COMPOSITION (MUST TOTAL 100%)

Potassium Hydroxide	0-1 %
Alkaline Cleaner	0-2 %
WATER	0-98 %
	%
	%
	%
	%
	%
	%
	%
	%

OTHER COMPONENTS IN p.p.m. or Mg/L

OIL & GREASE: ND
CYANIDES:
SULFIDES:
PCB's:
PHENOLICS:
OTHER:

METALS IN p.p.m. or Mg/L

ANTIMONY (Sb): ND
ARSENIC (As):
BARIUM (Ba):
BERYLLIUM (Be):
CADMIUM (Cd):
CHROMIUM VI:
CHROMIUM III:
COBALT (Co):
COPPER (Cu):
FLUORIDE (F):
LEAD (Pb):
MERCURY (Hg):
MOLYBDENUM (Mo):
NICKEL (Ni):
SELENIUM (Se):
SILVER (Ag):
THALLIUM (Tl):
VANADIUM (V):
ZINC (Zn):

E. VOLUME

ESTIMATED QUANTITY: 1000 GALLONS ____ TONS ____ DRUMS ____ YARDS ____ OTHER
FREQUENCY PER: ☐ ONE TIME ☐ DAY ☐ WEEK ☐ QUARTER ☒ YEAR
TREATMENT LOCATION: ☒ ON-SITE ☐ OFF-SITE

F. ADDITIONAL INFORMATION TO DESCRIBE THE SOLID HAZARDOUS WASTE:

G. IMPORTANT INFORMATION REGARDING YOUR WASTE:

HAS A WASTE EXTRACTION TEST (WET)* BEEN PERFORMED ON YOUR WASTE? ☐ YES ☒ NO
DOES YOUR WASTE EXHIBIT ANY CHARACTERISTIC OF EP TOXICITY**? ☐ YES ☒ NO
HAS ANY ANALYSIS BEEN PERFORMED ON YOUR WASTE? ☒ YES ☐ NO
CAN YOU FURNISH TEST RESULTS? ☒ YES ☐ NO

* CALIFORNIA, TITLE 22, DIV. 4, CHAPTER 30, ARTICLE 11, CAC.
** U.S. EPA, 40 CFR, PART 261, SUBPART C, SUBSECTION 261.24.

Need assistance to complete this from? CALL (619) 421-1175

ATTACH ANALYSIS OR TEST RESULTS WHEN YOU RETURN THIS PROFILE SHEET.

WHITE — FILE/LENDER • CANARY — CUSTOMER • PINK — TREATMENT SITE • GOLD — CORPORATE

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#19

Sample Number
9050978

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	36
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	50
Sodium	(7770)	NA	NA	1.0	54
Magnesium	(7450)	NA	NA	1.0	3.1
Potassium	(7610)	NA	NA	1.0	8600

Del Mar Analytical

Caryl Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Fouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#19	9060978

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	54
Potassium	(7610)	1.0	8600
Chloride	(9252)	1.0	100
Nitrate	(9200)	1.0	180
Sulfate	(9038)	1.0	40
pH	(9040)	NA	10.2

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

APPROPRIATE TECHNOLOGIES-II, INC.

1700 MAXWELL ROAD • CHULA VISTA, CALIFORNIA 92011 • (619) 421-1175

#8

WASTE PROFILE

A. GENERATOR INFORMATION

GENERATOR NAME LIQUIDAIR CORPORATION
FACILITY ADDRESS 8832 DICE RD
SANTA FE SPRINGS CA 90170

TRANSPORTER ENCOENVIRONMENTAL SERVICES
TRANSPORTER PHONE (714) 756-8666
GENERATOR U.S. EPA I.D. CIA4409092111160
GENERATOR STATE I.D. SYCHB30641202

TECHNICAL CONTACT TOM BARBER TITLE PLANT MANAGER PHONE (213) 945-1353
WASTE STREAM NAME SPENT SULFURIC ACID
PROCESS GENERATING WASTE INDUSTRIAL GAS MANUFACTURER

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR CLEAR WILL IT FLOW? ☒ YES ☐ NO
PHYSICAL STATE @ 70°F: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER DENSITY 1.2
ODOR: ☒ NONE ☐ MILD ☐ STRONG DESCRIBE
MOISTURE CONTENT % 100% ☒ WATER ☒ OTHER IGNITABILITY: ☐ YES ☒ NO FLASH POINT >200 °F

C. HAZARDOUS WASTE CODES

U.S. EPA HAZARDOUS WASTE: ☒ YES ☐ NO STATE HAZARDOUS WASTE: ☒ YES ☐ NO
U.S. EPA WASTE CODE NO's: D002, D010
STATE WASTE CATEGORY NO's: 791

D. CHEMICAL COMPOSITION (MUST TOTAL 100%)

Sulfuric Acid Solution	10-20 %
WATER	90-100 %
SELENIUM	0-1 %
CALCIUM, SODIUM	0-5 %
	%
	%
	%
	%
	%
	%
	%

METALS IN p.p.m. or Mg/L

ANTIMONY (Sb)	ND
ARSENIC (As)	ND
BARIUM (Ba)	ND
BERYLLIUM (Be)	ND
CADMIUM (Cd)	ND
CHROMIUM VI	ND
CHROMIUM III	ND
COBALT (Co)	ND
COPPER (Cu)	ND
FLUORIDE (F)	ND
LEAD (Pb)	ND
MERCURY (Hg)	ND
MOLYBDENUM (Mo)	ND
NICKEL (Ni)	ND
SELENIUM (Se)	2.4 ppm
SILVER (Ag)	ND
THALLIUM (Tl)	ND
VANADIUM (V)	ND
ZINC (Zn)	ND

OTHER COMPONENTS IN p.p.m. or Mg/L

OIL & GREASE	NONE
CYANIDES	
SULFIDES	
PCB's	
PHENOLICS	
OTHER	

E. VOLUME

ESTIMATED QUANTITY: 1000 GALLONS ____ TONS ____ DRUMS ____ YARDS ____ OTHER
FREQUENCY PER: ☐ ONE TIME ☐ DAY ☐ WEEK ☐ QUARTER ☒ YEAR
TREATMENT LOCATION: ☐ ON-SITE ☐ OFF-SITE

F. ADDITIONAL INFORMATION TO DESCRIBE THE SOLID HAZARDOUS WASTE:

G. IMPORTANT INFORMATION REGARDING YOUR WASTE:

HAS A WASTE EXTRACTION TEST (WET)* BEEN PERFORMED ON YOUR WASTE? ☐ YES ☒ NO
DOES YOUR WASTE EXHIBIT ANY CHARACTERISTIC OF EP TOXICITY**? ☒ YES ☐ NO
HAS ANY ANALYSIS BEEN PERFORMED ON YOUR WASTE? ☒ YES ~~☐ NO~~
CAN YOU FURNISH TEST RESULTS? ☒ YES ~~☐ NO~~

* CALIFORNIA, TITLE 22, DIV. 4, CHAPTER 30, ARTICLE 11, CAC.
** U.S. EPA, 40 CFR, PART 261, SUBPART C, SUBSECTION 261.24.

Need assistance to complete this from?
CALL (619) 421-1175

ATTACH ANALYSIS OR TEST RESULTS WHEN YOU RETURN THIS PROFILE SHEET.

WHITE — FILE/LENDER • CANARY — CUSTOMER • PINK — TREATMENT SITE • GOLD — CORPORATE

DICE 02278

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#8	9060967

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	4.1
Potassium	(7610)	1.0	N.D.
Chloride	(9252)	1.0	580
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	48
pH	(9040)	NA	1.7

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#8

Sample Number
9050967

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	8.4
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	2.4 D010
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	40
Sodium	(7770)	NA	NA	1.0	4.1
Magnesium	(7450)	NA	NA	1.0	N.D.
Potassium	(7610)	NA	NA	1.0	N.D.

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

5

Southern California District Office

17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

May 19, 1989

ensco environmental services, inc.
a subsidiary of environmental system company

Mr. Christopher Johnson
Hazardous Materials Specialist
County of Los Angeles
Department of Health Services
Hazardous Waste Control Program
Occupational Health Division
Environmental Management
2615 South Grand Avenue
Los Angeles, CA 90007

Dear Mr. Johnson:

This letter is meant to inform you that Liquid Air Corporation (8832 Dice Road, Santa Fe Springs, CA 90670) has retained Ensco Environmental Services, Inc. (EES) to profile, package, transport, and dispose of their hazardous waste material. We plan to commence work on-site beginning Monday, May 22, 1989. Enclosed you will find a timeline showing the estimated work duration.

Please feel free to contact either myself or Mr. Walter Pouchot at 714-756-8666 if you have any questions or wish to discuss this further.

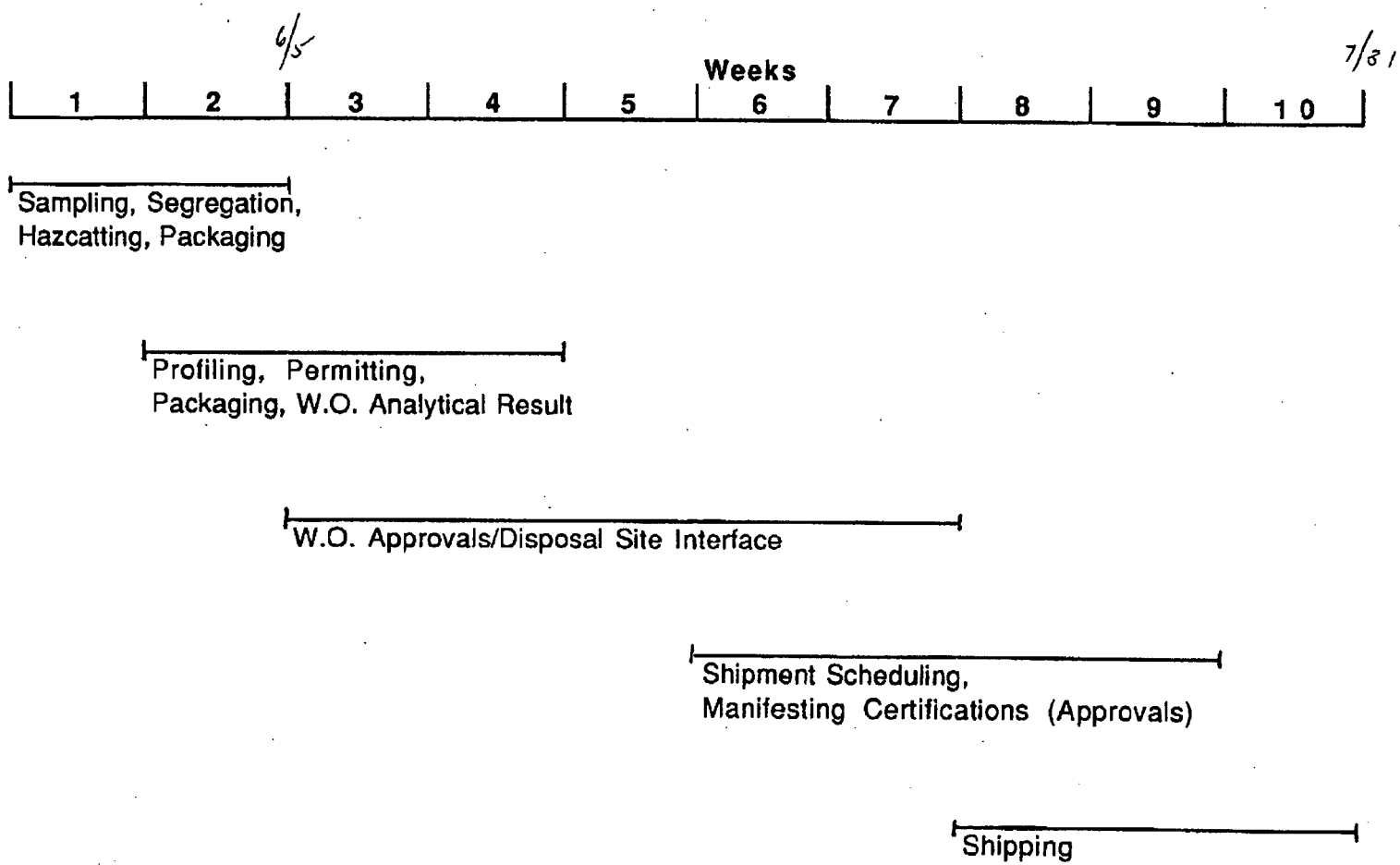
Sincerely,

Wayne Nastri
District Sales Manager

Walter Pouchot
Chemical Services Manager

cc: Mr. Tom Barber
Liquid Air Corp.
8832 Dice Rd.
Santa Fe Springs, CA 90670

LIQUID AIR TIMELINE



1A, 2A, 3A, 4B

GM 5-16 89 1A TO 4B

4 Samples

SAMPLE AND CHAIN OF CUSTODY RECORD

SAMPLE IDENTIFICATION LABORATORY JOB NUMBER: SJE

Sample Source or Company Name: LIQUID AIR INC 40607

Address: 8832 DICE RD SANTA FE SPRINGS

Reason For Sampling: ☐ STRIKE FORCE ☒ OTHER:

Monitoring Requested By: B. JONES AUTHORIZED BY: B. JONES PHONE: 7[illegible]

SAMPLE COLLECTION INFORMATION

Sampled By: Gerald P Munoz Submitted To Laboratory By: Gerald P Munoz

Total Quantity of Sample Collected: <1 PT Total Quantity of Composite Prepared: N/A Total Quantity Submitted To Lab: <1 PT

Sample Preservation Used: NONE Sample Split With Company? (Y) N Name: TOM BARBER

Flow When Sampled: NONE APP

Sample Taken From:

- ☐ Sample Box
- ☐ Clarifier
- ☐ Cleanout
- ☒ Other: DRUM

Sample Method:

- ☒ Grab
- ☐ Composite-Timed With ____ minute intervals.
- ☐ Composite-Flow With ____ gallon intervals.

Sample Grab or Composite Times:

At/or From 1030 (Hr. Min.) ☒ A.M. ☐ P.M. 5/6 (Month Day) 19 89 (Year)

To 100 (Hr. Min.) ☐ A.M. ☒ P.M. 5/6 (Month Day) 19 89 (year)

Condition of Clarifier, Sample Box, Other Observations: Sol [illegible] Noises

FIELD TEST RESULTS

pH #4 WAS ≈13 Flammability ____ Redox ____ Cyanide ____

Odor ____ Other ____ Other ____

Sulfide ____ Other ____ Other ____

NOTES TO ANALYSTS: ____

LABORATORY INFORMATION

Location Code: Interagency IW 03000 Type: SFS

- ☒ TS14R03 LACHD
- ☐ TS14R04 CA DOHS
- ☐ TS14R05 LA CITY
- ☐ TS14R06 LAC SHERIFF
- ☐ TS14R07 CHP
- ☐ TS14R08 LAC FIRE
- ☐ TS14R09-LA CITY ATTORNEY
- ☐ TS14R10 LAC D.A.
- ☐ TS14095 LACSD

Report To: BAIRD

Accounting Charges: B5 ____

Logged-In By: ____

LABORATORY TESTS

Check Tests Requested

Other ____

	CONSTITUENT	RESULTS	CODE
✓	pH #2, #4		101
✓	TOTAL CYANIDE, mg/l CN #4		206
✓	TOTAL ARSENIC, mg/l As		705
✓	TOTAL CADMIUM, mg/l Cd #3		708
✓	TOTAL CHROMIUM, mg/l Cr #3		709
✓	TOTAL COPPER, mg/l Cu #3		712
✓	TOTAL LEAD, mg/l Pb #3		714
	TOTAL MERCURY, mg/l Hg		717
✓	TOTAL NICKEL, mg/l Ni #3		718
	TOTAL SILVER, mg/l Ag		722
✓	TOTAL ZINC, mg/l Zn #3		724
	FLASH POINT °C		105
	TOTAL PHENOLS, mg/l C_6H_5OH		312
	OIL AND GREASE, mg/l		408

	CONSTITUENT	RESULTS	CODE
	#1 LABELS [illegible]		

CUSTODY RECORD

Relinquished by: (Signature)	Time/Date	Received by: (Signature)
[signature]		
Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Relinquished by: (Signature)	Time/Date	Received by: (Signature)

DICE 02283

SPECIFIC INSTRUCTION

16. **Packaging for Shipment:** Check one. Indicate the size of the drum. If (other), specify in blank space to the right of item.

17. **Method of Transportation:** Check one. Please specify if (other).

18. **Specific Gravity:** List the appropriate value.

19. **Viscosity:** Check one.

20. **Layering:** Check one.

21. **Suspended Solids:** List exact value if known and circle correct indicator parameter either weight or volume.

22. **Dissolved Solids:** List exact value if known.

23. **Thousands of BTU's/lb:** List exact value if known.

24. **Organically Bound Sulfur:** List exact value if known.

25. **Organically Bound Chloride:** List exact value if known.

26. **Organically Bound Nitrogen:** List exact value if known.

27. **Toxicity:** Check appropriate toxicity for waste stream based on values found in various chemical references. If no value can be found use reasonable judgment.

28. **Ash:** Give a value in percentage:

29. **Affinity for Water:** Check one. Hydrophilic refers to having a strong affinity for bindings of absorping water. Lipophilic refers to a strong affinity to fats.

30. **pH:** If hydrophilic was checked previously, give exact value. If lipophilic was checked previously, print N/A.

31. **Visual Description:** Give brief visual description of waste stream, include parameters, such as color, physical state, and similarities with commonly known substances. Ex. Light-green dry pellets.

32. **Constituents:** List *specific constituents* by name and corresponding percentage in waste stream. Values in percent by volume must be listed for the following categories: "Volatile Organics," "Non Volatiles," "Acid or Alkalis," "Salts and Inorganics," and "Water." Values in ppm must be listed for the following categories founnd on page 3: "Metallic" and "Toxics." Blank space is provided for those metals not listed on this form but found in the waste stream. If there is not a suitable category for a specific item other than metallics, found in the waste stream, list the item and the appropriate value (Percentage or ppm) under "Other Information" found on page 3. Ex. Crushed Steel Drums 60# . List any categories of chemical compounds that the referenced waste stream will react with under "Other Information." Specific values listed for constituents, must total to plus or minus 4# of the total volume. Constituents values may also be listed in a small range; in this case the minimum and maximum values as totaled are required to be within plus or minus 4# of total volume.

DICE 02284

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

Packaging for Shipment: [X] in Drums (size) [MH Type] [ ] in Bulk [ ] Other

Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] **Specific Gravity:** [1.4]

Viscosity @ 70°F: [ ] Low [ ] Medium [ ] High **Layering:** [X] None [ ] Bilayered [ ] Multilayered

Suspended Solids: % by weight or volume. Specify exact % [ ] **Dissolved Solids:** by % weight. Specify exact % [ ]

Thousands of Btu's/lbs. Specify: [unk] **Organically Bound Sulfur (wt %):** [unk] **Organically Bound Chloride:** [unk]

Organically Bound Nitrogen (Wt %): [unk] **Toxicity:** [ ] High [X] Medium [ ] Low [ ] Unknown **Ash %:** [ ]

Affinity for Water: [X] Hydrophilic [ ] Lipophilic **pH (if hydrophilic):** [.97]

Visual Description of waste: Whitish Yewish grounds

Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
Contaminated ProClo	5	Perlite (Vermiculite)	75	KOH	1%	Metals	1
Plastic Pump, Wood		Dimaceous Earth	3	NAOH	1%		
Flammable Debris				Ferric Chloride	10%		

DICE 02285

SPECIFIC INSTRUCTION

33. See page 2 under ("Constituents") for instructions on the listing of "Metallic," "Toxics," and "Other Information" values.

34. **Certification:** Must be signed by appropriate managerial personnel representing the company generating the waste stream referenced on this Form.

35. **TSD Facility Certification:** Must be signed by appropriate managerial personnel representing the facility to treat, dispose, or store waste stream as referenced on this Form.

36. Normally once this Form is completed and signed by the correct parties, it may be submitted to The Department of Health and Environmental Control thru the facility. Please check with the facility on specific instructions conerning disposal procedures.

LIQUID AIR

AN AIR LIQUIDE GROUP COMPANY

8832 DICE

April 12, 1991

City of Santa Fe Springs
Headquarters - Fire Station
11300 Greenstone Ave.
Santa Fe Springs, CA 90670

Attn: Ms. D. Jimenez

Dear Ms. Jimenez,

I would like to thank you for the courtesies given to Mr. Leger and myself on Thursday, April 4, 1991.

To recap those items discussed, please accept the following:

1.0 Liquid Air will remove the private fire hydrant located at the front of our plant entrance as requested in your letter dated September 5, 1986. Mr. Leger will notify the Fire Department and Public Works once the hydrant is removed.

2.0 Gas Hydrogen filling system. The system as per our general layout drawing meets the requirements of NFPA50A and Article 80. All installed electrical shall be in compliance with the NEC standards.

We shall provide for your review the piping drawings for gas Hydrogen and fire water circuits.

3.0 The 48,000 gallon Agron vessel and support equipment shall meet the Uniformed Building Codes requirements. We shall also provide piping drawings for your review.

620-91.bp

Street Address: 2121 North California Blvd., Walnut Creek, CA 94596 • 415/977-6500 • Telex: ITT 470020 • Telecopier: 415/977-6840
Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596

As the above met with your approval, we shall commence with the project engineering, with the results for your review as well as other required agencies.

Best regards,

Robert D. Predmore
Director, Engineering and Technical Services

cc: B. Leger

RDP/adb

620-91.bp

NFPA 50A

Standard for

Gaseous Hydrogen Systems at Consumer Sites

1989 Edition

NOTICE: Information on referenced publications can be found in Chapter 7.

Chapter 1 General Information

1-1 Introduction.

1-1.1 Hydrogen is a flammable gas. It is colorless, odorless, tasteless, and nontoxic. It is the lightest gas known, having a specific gravity of 0.0695 (air = 1.0). Hydrogen diffuses rapidly in air and through porous materials.

1-1.2 Hydrogen burns in air with a pale blue, almost invisible flame. At atmospheric pressure the ignition temperature of hydrogen-air mixtures has been reported by the US Bureau of Mines to be as low as 932 °F (500 °C). The flammable limits of hydrogen-air mixtures depend upon pressure, temperature, and water vapor content. At atmospheric pressure the flammable range is approximately 4 percent to 74 percent by volume of hydrogen in air.

1-1.3 Hydrogen is nontoxic, but can cause anoxia (asphyxiation) when it displaces the normal 21 percent oxygen in a confined area without adequate ventilation. Because hydrogen is colorless, odorless, and tasteless, its presence cannot be detected by the human senses.

1-1.4 Since the control of the hydrogen system may remain with the supplier, compliance with this standard will minimize the possibility of a consumer fire involving the hydrogen system, as well as the possibility of a hydrogen fire involving the consumer's premises.

1-2 Application of Standard.

1-2.1 This standard covers the general principles recommended for the installation of gaseous hydrogen systems on consumer premises where the hydrogen supply to the consumer premises originates outside the consumer premises and is delivered by mobile equipment.

1-2.2 This standard covers requirements for gaseous hydrogen systems. Systems are classified according to the total volume of hydrogen including unconnected reserves, as follows:

(a) Less than 3,000 CF (85 m³), except as covered in 1-2.3.

(b) From 3,000 (85 m³) to 15,000 CF (255 m³).

(c) In excess of 15,000 CF (255 m³).

1-2.3 The application of this standard at places of public assembly is subject to approval of the authority having jurisdiction.

1-2.4 An existing system which is not in strict compliance with the provisions of this standard may be continued in use when such use does not constitute a distinct hazard to life or adjoining property.

1-2.5 This standard does not apply to single systems using containers having a total hydrogen content of less than 400 CF (11 m³). Where individual systems, each having a total hydrogen content of less than 400 CF (11 m³), are located less than 5 ft (1.5 m) from each other, this standard shall apply.

1-2.6 This standard does not apply to hydrogen manufacturing plants or other establishments operated by the hydrogen supplier or his agent for the purpose of storing hydrogen and refilling portable containers, trailers, mobile supply trucks, or tank cars.

1-3 Definitions.

Approved. Acceptable to the "authority having jurisdiction."

NOTE: The National Fire Protection Association does not approve, inspect or certify any installations, procedures, equipment, or materials nor does it approve or evaluate testing laboratories. In determining the acceptability of installations or procedures, equipment or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization concerned with product evaluations which is in a position to determine compliance with appropriate standards for the current production of listed items.

Authority Having Jurisdiction. The "authority having jurisdiction" is the organization, office or individual responsible for "approving" equipment, an installation or a procedure.

NOTE: The phrase "authority having jurisdiction" is used in NFPA documents in a broad manner since jurisdictions and "approval" agencies vary as do their responsibilities. Where public safety is primary, the "authority having jurisdiction" may be a federal, state, local or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department, health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the "authority having jurisdiction." In many circumstances the property owner or his designated agent assumes the role of the "authority having jurisdiction"; at government installations, the commanding officer or departmental official may be the "authority having jurisdiction."

CF. Cubic feet of gas at 14.7 psia (101 kPa) and 70 °F (21.1 °C).

Combustible Liquid. A liquid having a closed cup flash point at or above 100 °F (37.8 °C) and subdivided as follows:

Class II liquids shall include those having a flash point at or above 100 °F (37.8 °C) and below 140 °F (60 °C).

Class IIIA liquids shall include those having a flash point at or above 140 °F (60 °C) and below 200 °F (93.4 °C).

DICE 02289

Liquid Air

50A not applicable

Flammable compressed gas, nontoxic, noncorrosive (Matheson)

Flam range in air 4-75%

80.301

Piping, valves, fittings compatible

Signage - placarding, No smoking w/i 25'

Zoning? - ck w/ Planning Dept.

No spill control or drainage or containment

Electrical per El. code - Provision for grounding?

Exterior storage - prot. from vehicular damage

30' from combustibles

Low or high pressure?

Where roofs or walls provided - noncombustible or limited combustible

15' radius - elec. class 1, Div. 2

15' from combustible mat'l

Piping tested at max op. pressure

Table 3-2.2 max distance is 50' - They are already providing 50' clear

5-1

7-50-2 over 6000 ft^3 - 25' 15,000 ft^3 heavier than air - 50'

7-91 Protective walls or roofs if provided F/B non-comb.

Elec. Class 1, Div 2, Group B

50' from comb. bldg., other fl. gas storage

FM - 25% LEL

HISTORY- LIQUID AIR INC.

8832 Dice Road, Santa Fe Springs, CA 90670

02/03/46- The Los Angeles County Engineers Dept issued IW permit #6 to the Burdett Oxygen Company of Cleveland Inc., to dispose of IW from their plant at 2032 Dice Road, Los Nietos, CA, subject to conditions and limitations that were attached to the permit. The conditions and limitations included that IW shall consist solely of carbide sludge from the manufacture of acetylene gas and also sludge shall be confined in the pits on the property for the permittee. The pits were to be 10 feet deep.

9/11/46- There was a memorandum written from Mr. Wayne Clark at the Los Angeles County Engineers Dept regarding the Burdett Oxygen Company. In this memo he mentioned that the above company was planning to erect an acetylene generating plant on a 4 and 3/4 acre site on the east side of Normandie Avenue, between East Road and Caison Street. Industrial waste would consist solely of 50 tons (ultimately 100 tons) per month of spent carbide sludge. The sludge was was to be placed in a dyked sludge bed on the property. No liquid would be permitted to run off from the bed. This sludge is the same material commonly known as slaked lime and technically called calcium hydroxide. Domestic sewage would be disposed of by a septic tank and leaching bed. The nearest sanitary sewer is a trunk line in Caison Street, 2500 feet south of the plant site.

11/46- The Los Angeles County Health Dept recommended approval of the application of the Burdett Oxygen Company, to dispose of IW pursuant to Los Angeles County Ordinance No. 614, as amended. They mentioned that the disposal of carbide sludge under the conditions set forth in this company's application should not create any conditions detrimental to the public health.

11/16/48- Waste sludge is being dumped in pit at eastern side of property. The pH was 10.

05/20/49- pH of the discharge was 7.

04/09/50- Approximately 5 gallons of caustic sludge are being disposed of daily.

03/02/51- Northern pit being expanded.

01/11/52- Approximately 1000 gallons of lime water per day being discharged into pit.

02/20/62- Company plans to hook up to the sewer. The material currently discharging into the lime pit will not be considered since the high solids and pH may cause problems in the sewer which was a dead end line.

03/29/63*- All caustic sludge is being purchased by So. Cal. Chemical (Not clear if this is the carbide sludge).

05/20/64- Permit issued to American Cryogenics to discharge wastewater from gas compression and liquifaction operations to the sewer.

01/19/71- Letter from contractor indicates that residue from acetylene generator is periodically hauled away by a disposal service.

Circa/73- 27 tons per day produced from the acetylene plant. It is hauled away approximately once a month.

05/05/76- Lime draining off property. Water Board classifies the lime as a Group II waste and directs that it be disposed of at a Calss II disposal site.

07/09/76- Cal. Regional Water Quality Control Board wrote a letter to Liquid Air regarding an inspection made on Jul 2, 1976. It was disclosed that this company intermittently discharged cooling water form their acetylene-filling operations into the unlined ditch south of their property. In addition, it was learned that they also proposed to discharge acetylene production process wastes into the same ditch. It was requested that they provide a written report to this Board, detailing the method of disposal of the above-described wastes decided upon.

Water Board requires that an NPDES permit be obtained for the discharge to the ditch.

11/4/77- Cal. Regional Water Quality Board issued NPDES permit No. (CA0058335) (CI6301) of wastes from the facility at 8832 Dice Road. At this time they mentioned the date Oct 31, 1977 , when this Board's staff found extensive white deposits in the unlined ditch south of the property. These deposits were traced to the discharge point which the pH was 11.9. It was requested in this letter that Liquid Air Inc. should immediately undertake cleanup work, and take necessary measures to prevent similar incidents from recurring in future. They also requested that this company should submit a written technical report to this Board by Nov 21, 1977, providing details of the preventive measures they have adopted. There were no further records available after this date concerning this matter.

Discharge to ditch had pH of 11.9. Water Board limits are between 6 and 9.

12/17/90- Several samples were taken from the pond and the pit on Dec 18, 1990. Samples were taken to the lab for further analysis. Field test of a sample of the waste pond showed a pH of between 12 and 13.

*Last record of discharge to pits was on 03/29/63. All subsequent records show that sludge is stored in a tank, and hauled away on a regular basis (see survey on 02/08/77).

COUNTY OF LOS ANGELES FIRE DEPARTMENT
HEALTH HAZARDOUS MATERIALS DIVISION
SPECIAL OPERATIONS INVESTIGATIONS UNIT

PROSECUTION SUMMARY

DBA: LIQUID AIR CORPORATION
ADDRESS: 8832 DICE ROAD
CITY: SANTA FE SPRINGS ZIP: 90670

DATE: 02 / 27 / 97
CASE #: BA089776
LOG #: 930201

INVESTIGATING OFFICERS: MARTY KASMAN
JIM MCCARRON

PD: [ ]

DEFENDANT(s) 1: LIQUID AIR INC. 3: ADVANCO INC.
2: BRYAN LEGER, MGR 4:

****

H&S CODE SEC. VIOLATED: [x] 25189.5(b) [ ] 25190 [ ] 25191 P.C. 374.8

VIOLATION: ILLEGAL DISCHARGE OF MORE THAN 15,000 GALLONS OF CORROSIVE HAZARDOUS WASTE INTO COYOTE CREEK.

****

DATE ADJUDICATED: 07 / 31 / 96 JUDGE: RODNEY NELSON
PLEA: [3] 1. Guilty 2. Not Guilty COURT: DEPT 115
VERDICT: [ ] 3. Nolo Contendre DA/CA: ROB MILLER
CRIMINAL CHARGES DROPPED, CASE HANDLED CIVILLY

****

JUDGEMENT TOTAL: $ 25,000.00 LADHS AGENCY COST: $ 6,000.00
TOTAL FINES: $ -00- PERCENTAGE OF FINE: $ -00-
PENALTIES: $ 4,500.00 OTHER AGENCY COST: $ 6,000.00 FISH & GAME
PD SPLIT: $

JAIL: ___ days ___ months ___ years [ ] 1. County 2. State 3. Federal
PROBATION: ___ days ___ months ___ years [ ] 1. Formal 2. Summary
SPECIAL CONDITIONS: $8,500.00 TO FUND AN INDUSTRY EDUCATION PAMPHLET TO BE DISTRIBUTED TO THE CONSTRUCTION INDUSTRY.

Initials: Inv. Off. ____ Date: / /
Supervisor ____ Date: 2/27/97

HMCP (3/89)

CLOSING MEMORANDUM

To: RICHARD SULLIVAN, Head Deputy
Environmental Crimes/OSHA Division

From: Robert Miller,
Deputy District Attorney

Subj.: **P. v. Liquid Air Corporation, Bryan Leger and Advanco,**
Case No. BA089776

Date: June 31 , 1996

This case arose from a January 1993 spill of calcium hydroxide-laden water into the storm channel outside the Santa Fe Springs plant of Liquid Air Corp., an acetylene manufacturer. Heavy rains had caused the water to collect in the open pits where the company stored calcium hydroxide (a.k.a. lime), a byproduct of the acetylene manufacturing process. The company decided to pump the excess water into the storm drain which led to Coyote Creek. Investigators noticed the milky colored effluent, traced it to the Liquid Air plant and told the company to cease pumping, sandbag the storm drain entry and initiate clean up of the storm channel and the stream bed. The company did so, but a few days later some negligent act (the company says one of their backhoe drivers dislodged some of the sandbags) caused an additional spill into the storm channel the the company was in the process of cleaning up.

The case was filed by Erica Martin on January 20, 1994, charging Liquid Air, Bryan Leger (a manager), Advanco, (the pump company), and two Advanco employees with two felony counts each of Hazardous Waste Disposal (H&S §25189.5), Polluting Navigable Waters (Water Code §13387), and Discharging a Hazardous Substance into State Waters (P.C. §374.8). The preliminary hearing was done by Tony Patchett during thirteen court days spread over a twenty month period ending in February 1996. Before the close of the prelim., we dismissed all charges against the individual employees of Advanco as well as the charges relating to the second incident against the Advanco company itself. The remaining defendants were held to answer.

A §995 motion was noticed by the Defendants and a hearing was set for July 11, 1996. Extensive briefs were submitted by both sides. Prior to the 995 hearing, I entered into settlement negotiations with the Defendants. In light of obvious problems of proof (see discussion below) I eventually agreed to the defense request to settle the case through the filing of a related civil suit and consent judgement. Under the terms of this settlement, the Defendants were to conform to certain injunctive conditions and pay a combined total of $125,000 in civil penalties and restitution, $80,000 from Liquid

Air and $45,000 from Advanco. This disposition was approved by Head Deputy Richard Sullivan.

On July 10, 1996 we informed the Court that the parties intended to settle rather than litigate the 995 motion. Nevertheless, the next day -- the day originally set for the 995 -- the Court (Judge Rodney Nelson) issued a written, tentative ruling on the 995 motion. The tentative ruling would grant the motion to dismiss as to all counts and all defendants. In view of the Court's tentative opinion, the Defendants politely declined to proceed with the proposed settlement. All parties requested a brief continuance to re-evaluate their positions. The People's options were to, (1) appeal the dismissal, (2) refile the case, or (3) attempt to renegotiate a settlement.

Given the extensive grounds cited by Judge Nelson in his tentative opinion, there seemed to be a possibility of prevailing on appeal only as to the P.C. §374.8 counts. Since this charge carries a $10,000 maximum fine, settlement still seemed the preferable alternative. Renewed disposition negotiations resulted in a proposed disposition which was approved in principle by the Court on July 16, 1996. The necessary documents were filed and the disposition was finalized on the record on July 31, 1996 in Department 115. Terms of the disposition are as follows:

The People filed a Civil Complaint against Liquid Air and Advanco (but not against Bryan Leger) alleging violations of Water Code §13350.

Simultaneously, both sides filed a Consent Judgement and Stipulation whereby both corporations agreed to pay a total of $25,000 in civil fines, restitution and contributions, and to be permanently enjoined from any violations of Water Code §13350, and to waive any appeal rights.

All payments are to be made within 30 days. The money distribution is:

Liquid Air
- $2,500 civil penalties to the D.A.'s Office
- $5,000 reimbursement to the Fish & Game Department
- $5,000 reimbursement to the LACO Fire Dept. Haz/Mat Division;

Advanco
- $2,000 civil penalties to the D.A.'s Office
- $1,000 reimbursement to the Fish & Game Department
- $1,000 reimbursement to the LACO Fire Dept. Haz/Mat Division.
- $8,500 to fund an industry education pamphlet mail-out to construction companies.

The People moved to dismiss the criminal case under P.C. §1385. This disposition was approved by Head Deputy Sullivan.

Judge Nelson's tentative opinion and the resulting disposition in this case did not come as a complete surprise. After reading the prelim. transcript, discussing the matter with Dr. Steve Carr and writing the 995 reply brief, I summarized the problems of proof as follows:

The People's original theory in this case, rested on the propositions that the lime effluent was hazardous because it had a pH above 12.5 and that dumping the effluent was also prohibited by Liquid Air's stormwater discharge permit. Dr. Carr would be our primary expert witness in a trial of this case. His opinions as to the pH issues are:

(1) A total of 13 samples were gathered by two different agencies and tested by three different labs for pH, each using a different technique. Three of the samples tested over 12.5 pH (the "hazardous waste" threshhold): 12.98, 13.00, and 13.25. Carr's lab retested the three high samples and each tested lower on the retest, but two of them remained above 12.5 pH. The lower results do raise the threshhold issue of lab flaws and variability of measurement among different labs.

(2) The statutory definition for "corrosive" requires that pH be measured by a specified EPA testing technique. This technique was not employed by any of the labs. While the techniques employed adequate lab procedure, there is almost always a "background noise" of variability in lab results.

(3) There is no good theory that explains the three pH readings over 12.5. Lime, by definition, has a pH of 12.45 or less. The combination of rain water and lime -- two non-hazardous wastes -- should not create a hazardous waste with a pH in excess of 12.5....unless there was a third contaminating agent with a very high pH. However, the most likely contaminants, sodium or potassium, would show up in the samples. They do not. In the absence of a more plausible theory, there is an even chance that the high readings were due to labratory measurement error.

In short, if a jury believed and accepted Dr. Carr's testimony and adopted his opinion entirely as their own, they could not conclude that the pH of the discharged liquid was at or above 12.5 beyond a reasonable doubt. In light of this, I do not believe that we can ethically procede on this theory as to the hazardous waste disposal counts.

Finally, there were some other factors to consider in evaluating the case:

(1) The company, in the course of its preparations to convert its lime pits into a parking lot, received opinions from the U.S. EPA and DTSC that the contents of the pits was not hazardous. There is no evidence that they actually believed that the liquid they were pumping into the storm drain was a hazardous waste.

(2) Though the pH test results should not be excluded at trial, the jury will be instructed that they can discount the weight they accord to those tests if they think the testing technique deviated from the required method.

(3) As to the Water Code charges: the stormwater discharge permit system is extremely convoluted and ambiguous. The Court of Appeal has recently sided with General Motors in an LA County case where the company discharged a similar pollutant, then sought the protection of their ambiguous and confusing stormwater discharge permit.

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JAMES L. MEEDER

February 17, 1993

Via Facsimile and Regular Mail

William Jones
Manager, Investigative Section
Health Hazardous Materials Division
County of Los Angeles Fire Department
5825 Rickenbacker Rd.
Commerce, CA 90040

Re: Liquid Air Corporation, 8832 Dice Rd.
Santa Fe Springs Facility

Dear Mr. Jones:

This letter follows our telephone conversation late yesterday regarding Liquid Air Corporation's concerns about further delay in completing the removal of the hydrated lime by-product from the settling pond behind its gas plant and the importation of clean fill. Liquid Air has not proceeded at the insistence of the County of Los Angeles Fire Department.

As discussed, Liquid Air wants to proceed immediately with its grading project pursuant to the permit issued on January 8, 1993 by the City of Santa Fe Springs. The pit is now an empty hole approximately 100 ft. by 300 ft. by 25 ft. Its southeast edge comes within ten feet of a rail spur on Angeles Chemical Company where a number of tanker cars containing chemicals are now parked. We are in the middle of the rainy season. The longer the pit is left unfilled the greater the risk of collapse of its side walls. As more rain falls, it will accumulate in the open pit and will need to be pumped out and disposed.

Construction on the new air separation plant on property just to the south of Liquid Air's facility is now delayed because dirt excavated from that site is to be used to fill the pit. The pit cannot accept fill dirt until the remaining 6000 yards of hydrated lime is removed. We now have a customer who has an immediate need and use for the remaining hydrated lime. Doplin Excavating & Grading Co., has notified Liquid Air that they need 5000 to 7000 cubic yards of hydrated lime for soil stabilization on a construction project in Montebello. This need presents Liquid Air with an immediate opportunity to remove the remaining hydrated lime by-product from the lime pit and to start filling the pit along the

southeast wall to shore up the rail spur area.

In cooperation with the local agencies, it is Liquid Air's intention to now proceed to complete the grading project as follows:

1. Angeles Chemical will be asked to relocate the tank cars on the rail spur as soon as possible.

2. The remaining approximately 6000 cubic yards of hydrated lime by-product will be removed and transported to Doplin's construction project and use to stabilize the soil.

3. The calcium carbonate (weathered co-product) in the pit will be compacted on the bottom of the pit pursuant to the plans and specifications approved by the City of Santa Fe Springs .

4. Cleanfill will be imported from the excavation on the adjacent property and elsewhere.

5. Cleanfill will be used first to shore up the southeast wall closest to the rail spur.

6. During the grading work rain water which accumulates in the pit will be pumped to tanker trucks and hauled off site and properly disposed of.

Liquid Air intends to proceed immediately with action items 1, 2, and 6. Depending on the weather, items 3 through 5 we believe will not commence for at least another ten days which should be more than enough time for all relevant concerns to be addressed.

As requested, a complete package of the reports and documents we discussed yesterday will be delivered to you no later than Friday, February 19, 1993.

If you have any questions do not hesitate to call.

Very truly yours,

James L. Meeder

JLM:sb

cc: Robert Predmore, Liquid Air
Brian Leger, Liquid Air
David Simon, Liquid Air

[redacted]

To: Mr. T.T. Otteson
From: Mr. J.H. Stewart
File: A-VIOLATIONS & COMPLAINTS
Date: 11-13-63

On November 12, 1963 at 12:30 P.M., received a call from Mrs. P.L. Shank of the Public Works Department, City of Santa Fe Springs, in which she complained of a discharge of liquid waste from the Cal Oxygen plant at 8832 Dice Road, Santa Fe Springs.

I visited the Cal Oxygen plant and interviewed Mr. Jack Smith, Plant Superintendent, who informed me that they were in the process of cleaning the cooling tower basin at the plant. The liquid waste in the basin was being pumped at the rate of 500 gallons per minute, into an old irrigation ditch immediately adjacent and South of the cooling tower. The total volume of waste to be disposed of was approximately 30,000 gallons. Upon entering the irrigation ditch, the liquid flowed in a southerly direction for approximately 200 yards, and then in an easterly direction for a distance undetermined.

I interviewed Mrs. Williams, upon whose property the irrigation ditch extends after leaving the Cal Oxygen plant, and she informed me that she did not have any objection to the discharge of this waste liquid into the irrigation ditch.

I then called Mrs. Shank and informed her of the situation. I also explained the problem involved in cleaning cooling towers at industrial plants, and told her that inasmuch as the adjacent property owner did not object to this method of disposing of the waste, it was probably the best means of disposal available. She thanked me for my report, and stated that they just wanted to make sure that the Cal Oxygen Company was not creating an industrial waste disposal problem at this location.

JHS:cm

cc: Reg. 1
File: V&C
I-225, 1H
I-4041
JHS

INVESTIGATION WORKSHEET	DATE & TIME OF COMPLAINT 12/17/90 2:00 pm	PAGE 1 OF 2
	INVESTIGATION BY John Hunter ON 12/17/90 & 12/18/90	

FIRM		COMPLAINANT	
Name:	Liquid Air	Name:	Leigh De Santis
Address:	8832 Dice	Address:	Director of Environmental Mgt
	Santa Fe Springs, CA		Santa Fe Springs City Hall
Phone:	(213) 945-1383	Phone:	(213) 868-0511

Complaint:

Investigate two large pits in the rear of property. There is green water in one of the pits.

Report:

An inspection of the facility found two large pits in the eastern portion of the property. The southern pit contained water with a distinct blue green tint. Waste water from the Company's acetylene production was being discharged into the southern pit. The pH of the water was measured at between 12 and 13 using pH paper. Companiy officals indicated the wastewater contained a mixture of calcium hydroxide and lime (calcium oxide).

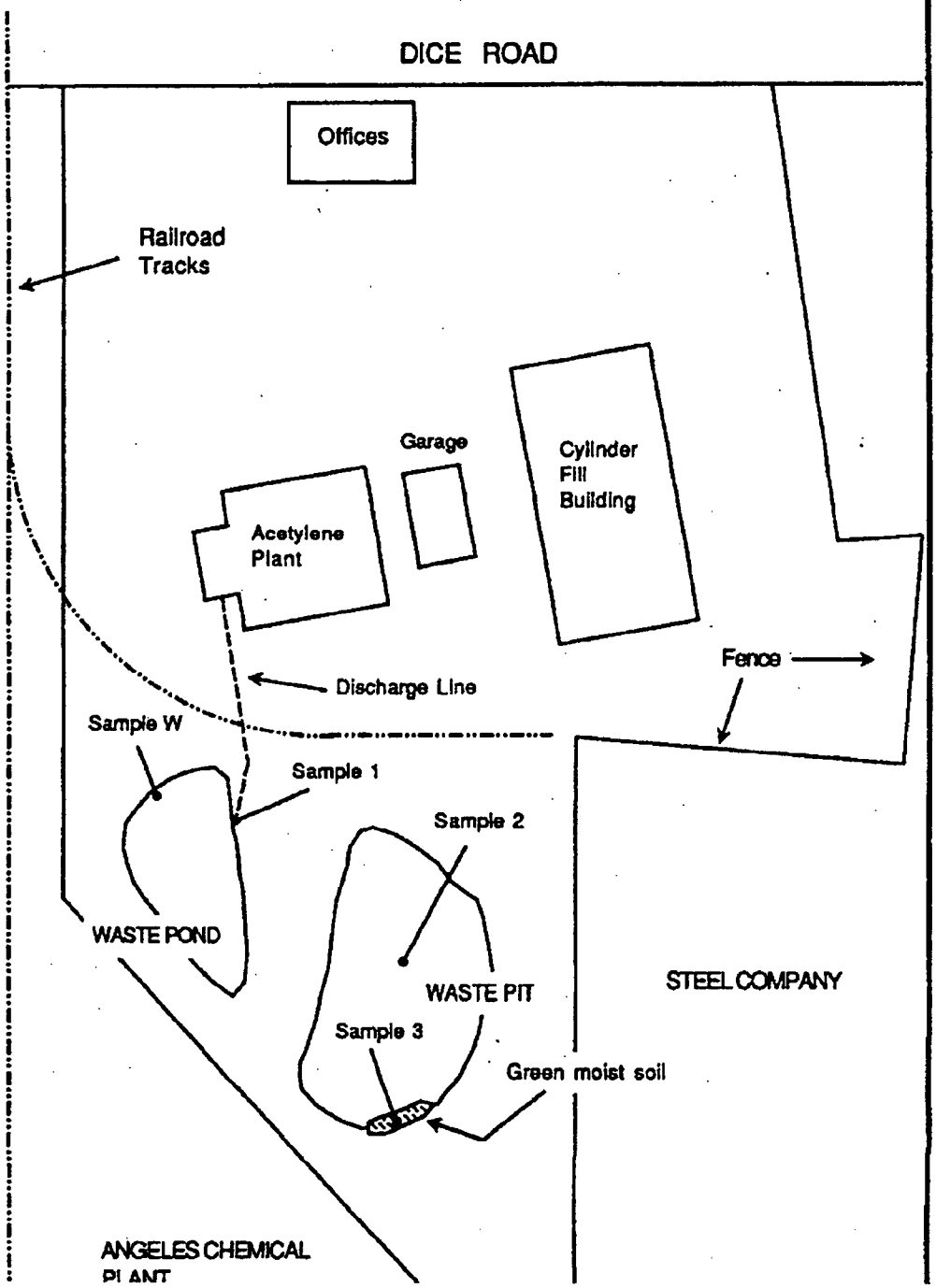
Samples were taken at 4 locations on 12/18/90. Sample "W" was a water sample taken from the pond. It is being analyzed for pH, heavy metals and organic solvents. The water in the sample was relatively colorless. Sample 1 was taken at the effluent point. Since the company was not producing at the time the sample was taken, the soil directly under the hose was also sampled and analyzed for heavy metals and pH. Sample 2 was taken at the approximate center of the pit at a depth of nine inches. At that depth, the calcium hydroxide had "set up" in a concrete layer throughout the area and the sampling equipment was unable to penetrate deeper. Sample 2 was analyzed for heavy metals and pH. While inside the pit, a very unsual striated green area was observed at the far eastern end. It consisted of alternating light green and dark green layers approximately 1/2" thick. This material had a very plastic (muddy) consistancy. The green layer started at about 10 feet deep and continued to the bottom of the pit (30'). Sample 4 was taken from this area and analyzed for heavy metals and organic solvents. Split samples were taken at all locations.

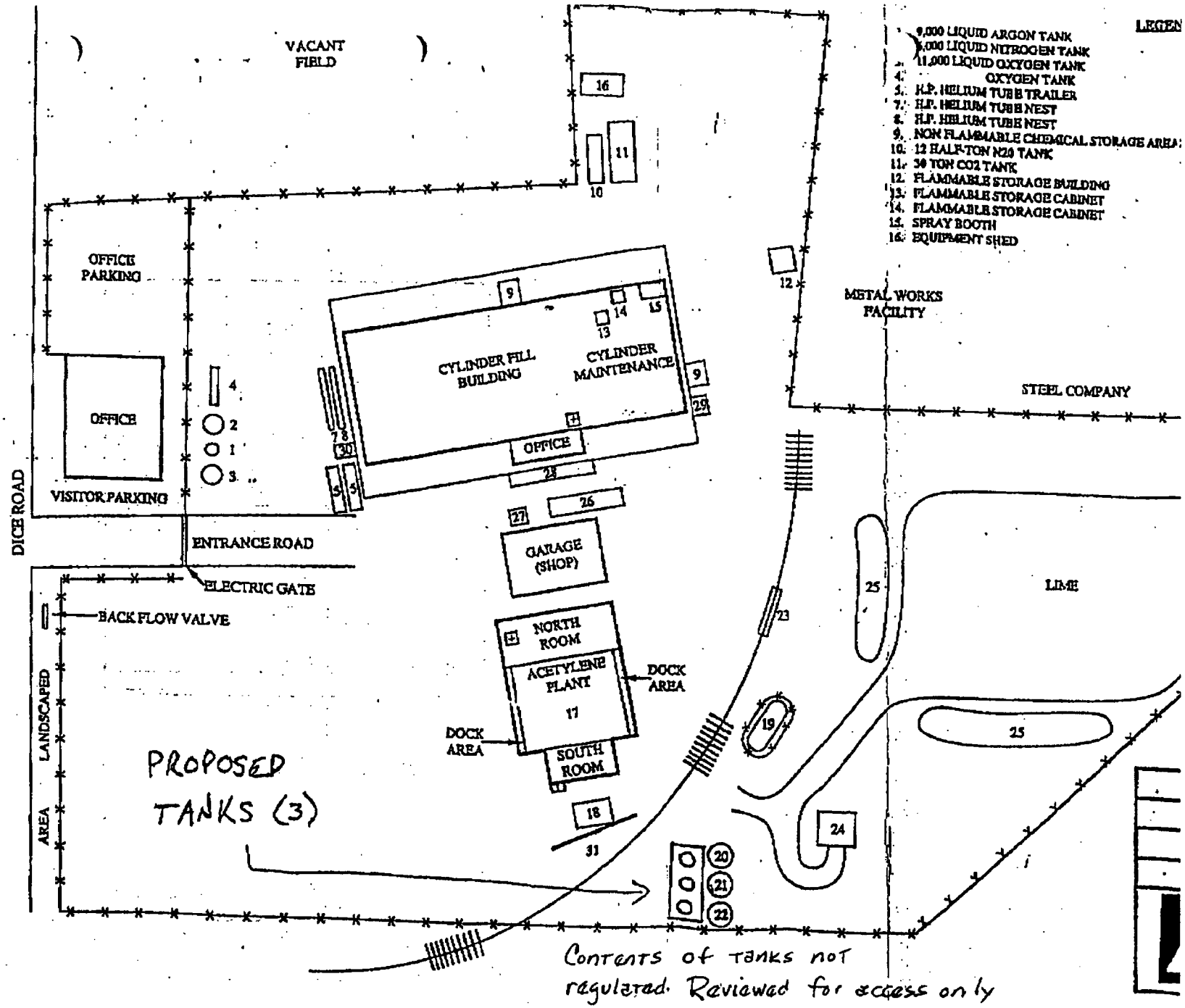
Steve Pebler was told that the discharge was not permitted due to the high pH and that there may be additional violations when the lab analysis is complete. Liquid Air will be required to stop this practice and remove any hazardous materials. The Regional Water Board has been contacted (as well as several other agencies) and they are investigating the discharge. Our experience is that this water will not come close to meeting ground disposal requirements, although it may not be considered hazardous. A preliminary review of records found that the pits were in use as far back as the early1950s.

WITNESSES-CONTACTS

NAME ADDRESS POSITION PHONE

INVESTIGATION WORKSHEET	FIRM NAME Liquid Air	PAGE 2 OF 2
	ADDRESS 8832 Dice, Santa Fe Springs, CA	12/17/90




VACANT FIELD
OFFICE PARKING
OFFICE
VISITOR PARKING
DICE ROAD
ENTRANCE ROAD
ELECTRIC GATE
BACK FLOW VALVE
LANDSCAPED AREA
CYLINDER FILL BUILDING
CYLINDER MAINTENANCE
OFFICE
GARAGE (SHOP)
NORTH ROOM
ACETYLENE PLANT
17
SOUTH ROOM
DOCK AREA
DOCK AREA
METAL WORKS FACILITY
STEEL COMPANY
LIME
PROPOSED TANKS (3)
Contents of tanks not regulated. Reviewed for access only
LEGEN
9,000 LIQUID ARGON TANK
6,000 LIQUID NITROGEN TANK
11,000 LIQUID OXYGEN TANK
OXYGEN TANK
H.P. HELIUM TUBE TRAILER
H.P. HELIUM TUBE NEST
H.P. HELIUM TUBE NEST
NON FLAMMABLE CHEMICAL STORAGE AREA
12 HALF-TON N2O TANK
30 TON CO2 TANK
FLAMMABLE STORAGE BUILDING
FLAMMABLE STORAGE CABINET
FLAMMABLE STORAGE CABINET
SPRAY BOOTH
EQUIPMENT SHED

City of Santa Fe Springs
Fire Department
Fire Prevention Bureau

APPROVED*

Subject to field inspection and required test, notations [illegible] conditions in correspondence [illegible] with applicable [illegible] stamping of these [illegible] held to permit or [illegible] violation of any regulation [illegible]

By F. Nikitin /DJ
FIRE PREVENTION OFFICER

Date 11-1-91

* Fire Dept. access shall be maintained UFC 10.207

DICE 02305

HANDLING METHODS AND DOT HAZARD CLASSES

1. **Storage**

S01 Container (barrel, drum, etc.)
S02 Tank
S03 Waste pile
S04 Surface impoundment
S05 Other (specify)

2. **Treatment**

(a) Thermal Treatment

T06 Liquid injection incinerator
T07 Rotary kiln incinerator
T08 Fluidized bed incinerator
T09 Multiple hearth incinerator
T10 Infrared furnace incinerator
T11 Molten salt destructor
T12 Pyrolysis
T13 Wet Air oxidation
T14 Calcination
T15 Microwave discharge
T16 Cement kiln
T17 Lime kiln
T18 Other (specify)

(b) Chemical Treatment

T19 Absorption mound
T20 Absorption field
T21 Chemical fixation
T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation
T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)

(c) Physical Treatment

(1) Separation of Components

T35 Centrifugation
T36 Clarification
T37 Coagulation
T38 Decanting
T39 Encapsulation
T40 Filtration
T41 Flocculation
T42 Flotation
T43 Foaming
T44 Sedimentation
T45 Thickening
T46 Ultrafiltration
T47 Other (specify)

(2) Removal of Specific Components

T48 Absortion-molecular sieve
T49 Activated carbon
T50 Blending
T51 Catalysis
T52 Crystallization
T53 Dialysis
T54 Distillation
T55 Electrodialysis
T56 Electrolysis
T57 Evaporation
T58 High gradient magnetic separation
T59 Leaching
T60 Liquid ion exchange
T61 Liquid-liquid extraction
T62 Reverse osmosis
T63 Solvent recovery
T64 Stripping
T65 Sand filter
T66 Other (specify)

(d) Biological Treatment

T67 Activated sludge
T68 Aerobic lagoon
T69 Aerobic tank
T70 Anaerobic lagoon
T71 Composting
T72 Septic tank
T73 Spray irrigation
T74 Thickening filter
T75 Trickling filter
T76 Waste stabilization pond
T77 Other (specify)
T78 (Reserved)
T79 (Reserved)

3. **Disposal**

D80 Underground injection
D81 Landfill
D82 Land treatment
D83 Ocean disposal
D84 Surface impoundment (to be closed as a landfill)
D85 Other (specify)

4. **Recovery**

R86 Solvent Reclamation
R87 Precious Metal Reclamation
R88 Heavy Metal Reclamation
R89 Wasteoil Recycling
R90 Waste Battery Recycling
R91 Other (type of Recovery)

DICE 02306

AUTHORIZATION REQUEST FORM (con't)

Metallic: (total metals not EP Toxcity Test)

As 8-180 ppm	Cr_{+3} unk ppm	Ag ND ppm	Fe 6700-2600 ppm
Ba 5-10 ppm	Cr^{+6} unk ppm	Ni 110-320 ppm	Sb ND ppm
Cd 3.6 ppm	Hg .18-.47 ppm	Cu 200-2600 ppm	Mn ND ppm
Pb 38-160 ppm	Se ND ppm	Ti ND ppm	Co ND ppm
Zn 440-700 ppm	___ ___ ppm	___ ___ ppm	___ ___ ppm

Toxics

Cyanide	ND ppm
Pesticides	ND ppm
Carcinogens	unk ppm
Other Toxics	unk ppm

Other Information: See Attached Analytical and MSDS's

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ **Date Submitted:** _____

Print Name: _____ **Title:** _____

TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: _____ **Date Submitted:** _____

Print Name: _____ **Title:** _____

DICE 02307

DOT HAZARD CLASS

Combustible	01	Organic peroxide	12
Corrosive	02	ORM-A	13
Etiologic agent	03	ORM-B	14
Explosive A	04	ORM-C	15
Explosive B	05	ORM-D	16
Explosive C	06	ORM-E	17
Flammable gas	07	Oxidizer	18
Flammable liquid	08	Poison A	19
Flammable solid	09	Poison B	20
Irritating agent	10	Radioactive	21
Nonflammable gas	11	Lab pack	22

NOTE: These DOT Hazard Classes are to be used on the Hazardous Waste Index Form [DHEC 1960 (7/84)] and the Authorization Request Form only and not on the hazardous waste manifest.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Monkey Dust

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#5

Sample Number
9050964

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	180
Barium	(7080)	100	10000	10	4.8
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	3.6
Chromium	(7191)	560	2500	0.5	61
Cobalt	(7200)	80	8000	1.0	20
Copper	(7210)	25	2500	1.0	1700
Iron	(7380)	NA	NA	1.0	67000 Fe = 6.7%
Lead	(7420)	5.0	1000	1.0	160
Mercury	(7471)	0.2	20	0.1	0.47
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	190
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	5.5
Zinc	(7950)	250	5000	1.0	440
Calcium	(7140)	NA	NA	1.0	1100
Sodium	(7770)	NA	NA	1.0	2500
Magnesium	(7450)	NA	NA	1.0	220
Potassium	(7610)	NA	NA	1.0	1300

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

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18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Monky pusk

Sample Description
#20

Sample Number
9050979

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	10
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	140
Cobalt	(7200)	80	8000	1.0	38
Copper	(7210)	25	2500	1.0	2600
Iron	(7380)	NA	NA	1.0	78000 = 7.8%
Lead	(7420)	5.0	1000	1.0	38
Mercury	(7471)	0.2	20	0.1	0.49
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	320
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	8.2
Zinc	(7950)	250	5000	1.0	700
Calcium	(7140)	NA	NA	1.0	160
Sodium	(7770)	NA	NA	1.0	3200
Magnesium	(7450)	NA	NA	1.0	66
Potassium	(7610)	NA	NA	1.0	120

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#20

Sample Number
9060979

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	3200
Potassium	(7610)	1.0	120
Chloride	(9252)	1.0	140000
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	3600
pH	(9040)	NA	0.9

$FeCl_2$

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Serv
Toxic Substances Control Divi
Sacramento, Califo

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000021160 — Manifest Document No.: 27962
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Liquid Air Corp, 8832 Dice Rd, Santa Fe Springs CA 90670
4. Generator's Phone (213) 945-1383

A. State Manifest Document Number: 88327962
B. State Generator's ID: SYCHB30641202
C. State Transporter's ID: 010742
D. Transporter's Phone: (213)-324-2445
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: 213-477-5380

5. Transporter 1 Company Name: PACIFIC ENVIRONMENTAL MGT — 6. US EPA ID Number: CAD982053779
7. Transporter 2 Company Name: — 8. US EPA ID Number:
9. Designated Facility Name and Site Address: Oil Process Co., 5756 Alba St, Los Angeles CA 90058 — 10. US EPA ID Number: CAD050806850

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. California Regulated Waste Only Calcium Chloride	3	DF	2040	P	State 181 / EPA/Other N/A
b. RQ Waste Potassium Hydroxide Solution Corrosive UN1814 / D002	6	DF	280	G	State 121 / EPA/Other D002/D004
c. California Regulated Waste Only (Calcium Chloride)	1	DM	500	P	State 181 / EPA/Other N/A
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
A. ~~[illegible]~~ 37-39 Analytical Results Attached
B. 17, 18, 19, 20, 21, 22*
C. ~~[illegible]~~ 36 Verbal Approval per Dennis Schultz

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear Protective Clothing When Handling

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T. F. BARBER — Signature: [signature] — Month Day Year: 072889

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Scott S Snyder — Signature: [signature] — Month Day Year: 072889

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: — Signature: — Month Day Year:

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

88327962

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

White: TSDF SENDS THIS COPY TO DOHS WITHIN 30 DAY
To: P.O. Box 3000, Sacramento, CA 95812

DICE 02312

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

DAM #88327962

Sample Description
#29 Kolt

Sample Number
9050988 Kolt

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	21
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	810 -
Lead	(7420)	5.0	1000	1.0	3.5
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	6.5
Calcium	(7140)	NA	NA	1.0	830
Sodium	(7770)	NA	NA	1.0	6000
Magnesium	(7450)	NA	NA	1.0	69
Potassium	(7610)	NA	NA	1.0	160000

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#29	9060988

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	6000
Potassium	(7610)	1.0	160000
Chloride	(9252)	1.0	150
Nitrate	(9200)	1.0	20
Sulfate	(9038)	1.0	120
pH	(9040)	NA	13

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

31

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#31 KOH

Sample Number
9050990

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	21
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	550
Lead	(7420)	5.0	1000	1.0	2.7
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	4.3
Calcium	(7140)	NA	NA	1.0	550
Sodium	(7770)	NA	NA	1.0	5600
Magnesium	(7450)	NA	NA	1.0	67
Potassium	(7610)	NA	NA	1.0	200000

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Fouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#31 KOH	9060990

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	5600
Potassium	(7610)	1.0	200000
Chloride	(9252)	1.0	400
Nitrate	(9200)	1.0	20
Sulfate	(9038)	1.0	120
pH	(9040)	NA	13

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Calcium Chloride

Sample Description	Sample Number	Calcium mg/kg	Chloride mg/kg
Solid Samples:			
#6	9050965	180000	570000
#9	9050968	200000	550000
#35	9050994	240000	820000

Method of Analysis: Calcium: EPA Method 7140
Chloride: EPA Method 9252

Del Mar Analytical

Gary Steube
Laboratory Director

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

RECEIVED
FEB 24 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

INDUSTRIAL WASTE SURVEY

City Santa Fe Springs I-File No.

SMD No. 0515100 Permit No. 4061 & 4784

FIRM NAME LIQUID AIR, INC.

Address 8832 S. DICE ROAD Telephone No. 685-4960

between Burke St. and Los Nietos Road

Contact Name BILL ALDRICH Title PLANT MANAGER

Business and processes: MFG. INDUSTRIAL GASES. ACETYLENE, HYDROGEN, NITROGEN, OXYGEN AND ARGON.

Type and Quantity I.W. CYLINDER TESTING WATER; SPENT CAUSTIC FROM SCRUBBING SYSTEM; COOLING TOWER BLEED-OFF AND FLOOR WASH-DOWN.

WASTE DISPOSAL: Sample Taken NO Parameters HAVE

Sewer: SMD Lodge San.Dist. 18 Volume 15,000 GPD

Surface Drainage ____ Cooling Water ✓ Uncontaminated ____

Ground SLUDGE PIT *Holding ~~Tank~~ SUMP ✓ Level Alarm —

Other ACETYLENE TANK COOLING WATER TO NORTH FORK COYOTE CREEK

PRETREATMENT FACILITIES: Location SEE SKETCH ON BACK

Trap: Standard ____ Non-Standard ① WOTT-FC 1500 GALS

Other ② SPECIAL 4'x8'x10' DEEP. ③ SPECIAL SUMP

REQUIREMENTS AND DATA:

Inspection YES Frequency II Permit HAVE

New Industry NO Resurvey YES T.C. Requested HAVE

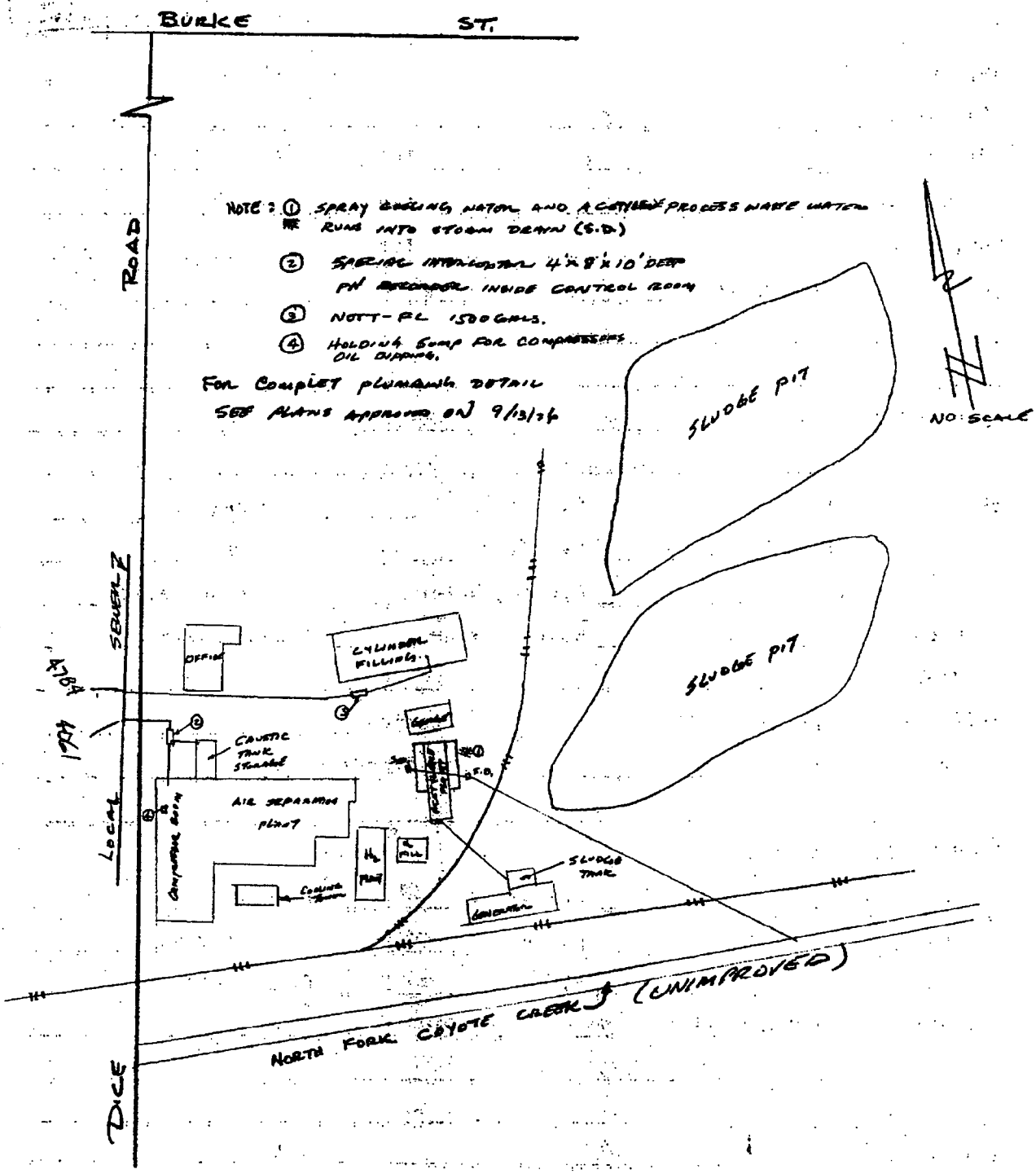
Classification 205 SIC No. 2813 Disp. Method 1 & 5

REMARKS AND RECOMMENDATIONS: RESURVEY FOR FILE INFORMATION. BY-PRODUCTS OF CALCIUM CARBIDE AT THE ACETYLENE PLANT IS PUMP TO SLUDGE HOLDING TANK, LATER HAULED TO LEGAL POINT OF DISPOSAL.

Survey by: Jerry Woods Date 2-8-77

5-74

DICE 02318


BURKE ST.
ROAD
SEWELL
LOCAL
DICE
NOTE: ① SPRAY COOLING WATER AND ACTIVATED PROCESS WASTE WATER RUNS INTO STORM DRAIN (S.D.)
② SPECIAL INTERCEPTOR 4'x8'x10' DEEP PH RECORDER INSIDE CONTROL ROOM
③ NOTT-FL 1500 GALS.
④ HOLDING SUMP FOR COMPRESSORS OIL DRIPPING.
FOR COMPLET PLUMBING DETAIL SEE PLANS APPROVED ON 9/13/76
NO SCALE
SLUDGE PIT
SLUDGE PIT
OFFICE
CYLINDER FILLING
CAUSTIC TANK STANDS
AIR SEPARATION PLANT
COMPRESSOR BLDG
COOLING TOWER
SLUDGE TANK
S.D.
NORTH FORK COYOTE CREEK (UNIMPROVED)

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

0810 J06411

LAX J 36411

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: LIQUID AIR CORPORATION
2. Generator USEPA ID: CAL000021160
3. Facility Address: 8832 DICE RD
   SANTA FE SPRINGS CA 90670
4. Generator State ID: SYC HB3061202
5. Zip Code: 90670
6. Technical Contact: TOM BARBER
7. Title: PLANT MANAGER
8. Phone: (213) 945-1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO ENVIRONMENTAL SERVICES, INC
3. Phone: (714) 756-8666
4. Address: 17062 B MURPHY AVE
   IRVINE, CA
5. Zip Code: 92714

C. 1. **NAME OF WASTE** Ethylene Glycol

2. **PROCESS GENERATING WASTE** INDUSTRIAL GAS MANUFACTURER

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
   ☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
GREEN	☒ No ☐ Yes If known, describe:	☐ Solid ☐ Semi-Solid ☒ Liquid ☐ Powder Other:	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.0 - 1.2	☒ Yes ☐ No Volume: 100

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☒ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ None ☐ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.	RANGE MIN. - MAX.	
Ethylene glycol	50 - 90	%
WATER	0 - 50	%
OIL	0 - 20	%
HYDROCARBON SLUDGE	1 - 3	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	_____ ppm
Cyanides	☒	☐ < 50 ppm	_____ ppm
Phenolics	☒	☐ < 50 ppm	_____ ppm
Sulfides	☒	☐ < 50 ppm	_____ ppm

F. METALS Indicate if this waste contains any c the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☐ < 5	☐ < 500	_____
Barium	☐ < 100		_____
Cadmium	☐ < 1	☐ < 100	_____
Chromium	☐ < 5		_____
Lead	☐ < 5	☐ < 500	_____
Mercury	☐ < 0.2	☐ < 20	_____
Selenium	☐ < 1	☐ < 100	_____
Silver	☐ < 5		_____
Chromium-Hex	☐ < 5	☐ < 500	_____
Copper	☐ < 5		_____
Nickel	☐ < 5	☐ < 134	_____
Thallium	☐ < 5	☐ < 130	_____
Zinc	☐ < 5		_____
_____	☐ <		_____
_____	☐ <		_____
_____	☐ <		_____

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

LAA J 36411
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☒ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

		LESS THAN	or	ACTUAL
Beryllium	☐ <	5000 ppm		____ ppm
Potassium	☐ <	5000 ppm		____ ppm
Sodium	☐ <	5000 ppm		____ ppm
Total Bromine	☐ <	2 %		____ %
Total Chlorine	☐ <	35 %		____ %
Total Fluorine	☐ <	1 %		____ %
Total Sulfur				____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): UNK
2. Water: 0-50 %
3. Viscosity (cps): 500 @ ☐ 72 °F ☐ 100°F ☐ 150°F
4. Ash: UNK %
5. Settleable solids: 1-2 %
6. Vapor Pressure @ STP (mm/Hg): UNK
7. Is this waste a pumpable liquid? ☒ Yes ☐ No
   Type of pump? CENTRIFUGAL
8. Can this waste be heated to improve flow? ☐ Yes ☒ No
9. Is this waste soluble in water? ☒ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☒ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☐ Yes ☒ No
2. Anticipated Annual Volume/Units: 1000gal / year
3. Proper Shipping Name: CALIFORNIA REGULATED WASTE ONLY (LIQUID)
4. Hazard Class: NA
5. I.D. #: NA
6. Additional Description: (ethylene glycol spent
7. Method of Shipment: ☒ Bulk Liquid ☐ Bulk Solid ☒ Drum (Type/Size): 17E / 55Gal Other: _____
8. CERCLA Reportable Quantity (RQ): NONE
9. RQ Units (lb/kg): NONE
10. USEPA Hazardous Waste? ☐ Yes ☒ No
11. USEPA Hazardous Waste Number(s): NA
12. State Hazardous Waste? ☒ Yes ☐ No
13. State Hazardous Waste Number(s): 343

K. SPECIAL HANDLING INFORMATION _____

☐ Additional Page(s) Attach

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true a accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. Signature: [signature]
2. Title: PLANT MGR
3. Name (Type or Print): T. F. BARBER
4. Date: 6-29-89

Side 2 of 2
Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

J36411

J 36411

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Wa Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obt and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sam along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, plea refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. **SAMPLING METHOD** (Indicate which method was employed)
If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sh referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sh referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. **SAMPLE SOURCE** (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. **SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING**

J36411

1. Waste Profile Sheet Code: _____
2. Generator's Name: _____
3. Name of Waste: _____
4. Sample Hour/Date: _____
5. Sampler's Signature: _____

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: _____
7. Sampler's Title: _____
8. Sampler's Employer (if CWM, see D. below): _____

D. **WITNESS VERIFICATION** (if required) In most circumstances you will be obtaining the sample. However, in those cases in wh Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source tc sampled, to witness the sampling, and to complete this Part D.
I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the informat noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36410

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Liquid Air Corp
2. Generator USEPA ID: CAL000021160
3. Facility Address: 8832 Dice Rd. Santa Fe Spring CA 90760
4. Generator State ID: _____
5. Zip Code: _____
6. Technical Contact: Tom Barber
7. Title: Plant Manager
8. Phone: (213) 945-1393

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO Environmental Services
3. Phone: (714) 756-8666
4. Address: 17062 Murphy Ave Irvine CA 92714
5. Zip Code: _____

C. 1. **NAME OF WASTE** Oil contaminated with Halogenated Hydrocarbons

2. **PROCESS GENERATING WASTE** Industrial Gas Manufacturing

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
Brownish Yellow	☐ No ☒ Yes If known, describe: Oily	☐ Solid ☐ Semi-Solid ☒ Liquid ☐ Powder Other: _____	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.2-1.4	☒ Yes ☐ No Volume: 100%

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ ☒ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☒ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☐ None ☒ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.		RANGE MIN. - MAX.	
Oil and Gas		50 - 80	%
Halogenated	Solvents	1 - 20	%
Water		1 - 50	%
Grease		TR - 2	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%
		-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	_____ ppm
Cyanides	☒	☐ < 50 ppm	_____ ppm
Phenolics	☒	☐ < 50 ppm	_____ ppm
Sulfides	☒	☐ < 50 ppm	_____ ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☒ < 5	☐ < 500	_____
Barium	☒ < 100		_____
Cadmium	☒ < 1	☐ < 100	_____
Chromium	☒ < 5		_____
Lead	☒ < 5	☐ < 500	_____
Mercury	☒ < 0.2	☐ < 20	_____
Selenium	☒ < 1	☐ < 100	_____
Silver	☒ < 5		_____
Chromium-Hex	☒ < 5	☐ < 500	_____
Copper	☒ < 5		_____
Nickel	☒ < 5	☐ < 134	_____
Thallium	☒ < 5	☐ < 130	_____
Zinc	☒ < 5		_____
_____	☐ <		_____
_____	☐ <		_____
_____	☐ <		_____

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

DICE 02323

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

UAK J 36410
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☒ Yes ☐ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☒ Yes ☐ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

	LESS THAN	or	ACTUAL
Beryllium	☐ < 5000 ppm		_____ ppm
Potassium	☐ < 5000 ppm		_____ ppm
Sodium	☐ < 5000 ppm		_____ ppm
Total Bromine	☐ < 2 %		_____ %
Total Chlorine	☐ < 35 %		_____ %
Total Fluorine	☐ < 1 %		_____ %
Total Sulfur			_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: _____
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°
4. Ash: _____ % 5. Settleable solids: _____
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 1000 / gal
3. Proper Shipping Name: Waste Combustible Liquid NOS
4. Hazard Class: Combustible Liquid 5. I.D. #: NA 1993
6. Additional Description: (Oil Waste Contaminated with Halogenated Solvents
7. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Solid ☒ Drum (Type/Size): 17E / 55 Other: _____
8. CERCLA Reportable Quantity (RQ): F001 9. RQ Units (lb/kg): 100#
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): F001
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): all

K. SPECIAL HANDLING INFORMATION See Attached Analytical.

☒ Additional Page(s) Attach

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true a accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possessior the generator has been disclosed.

1. [signature] Signature 2. Plant Mgr. Title
3. T. J. Barber Name (Type or Print) 4. 6-29-89 Date

Side 2 of 2
Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

J36410

LAX J 36410

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Wast Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtai and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or a equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sampl along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, pleas refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification c Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Shec referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Shec referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

J36410

1. Waste Profile Sheet Code:		1. Waste Profile Sheet Code:
2. [redacted] Generator's Name:	Liquid Air Corp	2. Generator's Name:
3. [redacted] Name of Waste:	Halogenated Solvents containing Oil/Gas	3. Name of Waste:
4. [redacted] Sample Hour/Date:	5/30/89	4. Sample Hour/Date:
5. [redacted] Sampler's Signature:	W. Pouchot	5. Sampler's Signature:

6. Print Sampler's Name: W. Pouchot
7. Sampler's Title: Chemical Services Mgr
8. Sampler's Employer (if CWM, see D. below): _____

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in whic Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to l sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the informatic noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

Form CWM-51 © 1987 Chemical Waste Management, Inc.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

#16 OSCO [illegible]
Waste Combustible Liquid NOS F001

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Sludge Sample 16	9050975

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Tetrachloroethene	200	N.D.
1,1,1-Trichloroethane	200	100000
Trichloroethene	200	N.D.
1,1-Dichloroethane	200	N.D.
1,2-Dichloroethane	200	N.D.
1,1-Dichloroethene	200	600
trans-1,2 Dichloroethene	200	N.D.
Methylene Chloride	200	N.D.
Chloroform	200	N.D.
Bromodichloromethane	200	N.D.
Dibromochloromethane	200	N.D.
Bromoform	200	N.D.
Bromomethane	200	N.D.
Chloromethane	200	N.D.
Chloroethane	200	N.D.
Vinyl Chloride	200	N.D.
1,2-Dichloropropane	200	N.D.
1,3-Dichloropropenes	200	N.D.
Carbon Tetrachloride	200	N.D.
Trichlorofluoromethane	1000	N.D.
1,1,2-Trichloroethane	200	N.D.
1,1,2,2-Tetrachloroethane	200	N.D.
2-Chloroethylvinyl ether	200	N.D.

N.D. = None Detected above stated Detection Limit

Method of Analysis: EPA 8240

Del Mar Analytical

Gary Steube
Laboratory Director

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Sludge Sample 16	9050975

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Benzene	200	N.D.
Toluene	200	N.D.
Ethylbenzene	200	N.D.
Chlorobenzene	200	N.D.
Xylenes (sum of 3 isomers)	200	N.D.
Acetone	1000	N.D.
2-Butanone	1000	N.D
Carbon Disulfide	400	N.D.
Vinyl Acetate	400	N.D.
4-Methyl-2-pentanone	400	N.D.
2-Hexanone	400	N.D.
Styrene	400	N.D.

N.D. - None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	147 %
Toluene-d8	91 %
4-Bromofluorobenzene	104 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Basics

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/19/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample #16	9050975

PCBs

	Detection Limit mg/Kg	Sample Results mg/Kg
PCB-1016	10	N.D.
PCB-1221	10	N.D.
PCB-1232	10	N.D.
PCB-1242	10	N.D.
PCB-1248	10	N.D.
PCB-1254	10	N.D.
PCB-1260	10	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 8080.

LIQUID AIR

AN AIR LIQUIDE GROUP COMPANY

BY FEDERAL EXPRESS TRACKING NO. 5124284874

January 29, 1993

Mr. Marty Kasman
County of Los Angeles
Department of Health Services
5825 Rickenbacker
Commerce, CA 90040

Sub: Answer to Notices of Violation and Order to Comply
Dated January 23, 1993 and January 28, 1993

Re: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Kasman:

The purpose of this letter is to respond to the above referenced Notices pursuant to your inspection of our Santa Fe Springs facility. Please be advised that we have removed our hydrated lime co-product from the flood control channel and dirt ditch adjacent to our facility and from the storm drain pipe and catch basin behind the acetylene plant. This lime material has been restored and regraded into our lime containment area by our contractor in such a manner so as to prevent accidental overflow even during a heavy rainstorm event.

With regard to the Notice dated 01-23-93:

1. Our hydrated lime co-product is not a hazardous waste according to 22 CCR § 66261.20 et. seq. The pH of this material is less than 12.5 when measured as required according to EPA Test Method 9040 as set forth in SW-846. Therefore, Health and Safety Code (H&SC) § 25189.5 is not applicable.

2. As stated above, our hydrated lime is not a hazardous waste and therefore H&SC §§ 25189.5 and 25186.2 do not apply in the instant matter.

dns9693.ltr

Street Address: 2121 North California Blvd., Walnut Creek, CA 94596 • 510/977-6500 • Telecopier: 510/977-6840
Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596

With regard to the Notice dated 01-28-93, in the order marked therein:

1. & 2. H&SC §§ 25189.5 and 25186.2 do not apply because the hydrated lime is not a hazardous waste.

3. A copy of our facility's hazardous materials business plan is attached. Our facility is a Small Quantity Generator only and therefore a Hazardous Waste Contingency Plan is not required.

4. & 5. The hydrated lime which was removed from the drainage conveyances in the instant matter is not a hazardous waste and was replaced in the lime containment area on our site. Therefore, EPA ID Number (22 CCR § 66472), HW Manifest and transportation (H&SC 25163) requirements do not apply.

* *

8. & 9. The non-hazardous lime material was replaced in our containment areas as stated above. The storage and labeling requirements for hazardous wastes under 22 CCR § 66241-67243 and § 66693-66746 do not apply.

10. The site assessment and mitigation plans referenced under H&SC §§ 25245-25249 apply to hazardous waste (TSD) facility closures and postclosures. This is not applicable in the instant matter.

* *

12. The discharge of lime occurred when our operator unknowingly struck with a forklift truck (while driving) sandbags which were positioned about the storm drain catch basin for containment purposes, during the cleanup process. Residue lime in this area then flowed into the catch basin conveyance.

We have completed the cleanup of spilled lime material and regraded our lime containment area as explained above.

dns9693.ltr

We appreciate your Department's concerns in this matter.

Very truly yours,

David N. Simon
Manager Regulatory Affairs

DNS/db

Att:

cc: Milt Bird - Liquid Air, Santa Fe Springs
Bryan Leger - Liquid Air, Santa Fe Springs

dns9693.ltr

1 9 9 3

HAZARDOUS MATERIAL

BUSINESS PLAN

LIQUID AIR CORPORATION

8832 Dice Road

Santa Fe Springs, CA. 90670

The following report was compiled by Liquid Air Corporation, as part of its environmental and community "Right To Know" compliance effort. It was conceived and executed as a complete report and may not be separated, divided or mutilated for any reason. Partial copies of this report are hereby declared invalid. Complete copies are available from Liquid Air Corporation.

303-90.sg

LIQUID AIR CORPORATION
SANTA Fe SPRINGS PLANT
EMERGENCY RESPONSE PLAN

Date: 2/1/93

Written by: Bryan Leger

1. Purpose

The purpose of this plan is to provide for the protection of employee's, company property, and to minimize hazards to public health and the environment caused by fire, severe weather, unplanned release of energy or hazardous materials, earthquake, or other accidents of major proportions.

NO EMPLOYEE WILL ASSUME GRAVE RISK TO SELF OR OTHERS IN ATTEMPTING TO CONTROL FIRES OR OTHER HAZARDS. AT ALL TIMES, PERSONAL SAFETY WILL TAKE PRECEDENCE OVER PROTECTION OF COMPANY PROPERTY.

Safety is an integral part of any Liquid Air operation. All personnel affected by this procedure must be familiar with it and all appropriate safety manuals.

2. Emergency Response Team

Emergency Response Team members, in order of authority:

Plant Manager	(emergency coordinator)
Administrative Manager	(communication coordinator)
Shift Manager/Supervisor	(plant personnel coordinator)
Receptionist	(office personnel coordinator)
Plant Secretary	

3. Duties of the Emergency Response Team

A. Emergency Coordinator (EC)

The EC has the responsibility for coordinating all emergency control measures. All other members of the ERT report to the EC. The EC will be the person who is in charge of "fighting the fire" from the company's point of view. This person will of course be totally familiar with the equipment and special hazards in the plant. The EC has the authority to commit the resources needed to carry out this Emergency Response Plan.

B. Communications Coordinator (CC)

The Communications Coordinator will be responsible for interfacing with all external parties in an emergency. This includes the fire department, Liquid Air Headquarters in Walnut Cree, paramedics, ambulances, news media, etc. The Communications Coordinator must be familiar with the entire plant and will be able to provide all outsiders with the information they require so that the EC will be able to concentrate on the emergency itself. The Communications Coordinator will work directly with the Plant Secretary, but will remain at the on site fire department control center as much as possible after the early stages of the emergency.

C. Plant Personnel Coordinator (PPC)

The Plant Personnel Coordinator has the responsibility of accounting for all plant employees immediately after an emergency. The PC shall retrieve all employee time cards and evacuate to the sight evacuation area. The Plant Personnel Coordinator must then make a headcount of all plant employees. When the roster is complete, the PC is to immediately notify the Emergency Coordinator of the count, including the names of anyone who was not able to evacuate. All employees must remain in the Evacuation Area until told to evacuate further by either the Emergency Coordinator or the fire department. At this time, the PC will become a relay point between the Communications Coordinator and the Plant Secretary.

D. Office Personnel Coordinator (OPC)

The Office Personnel Coordinator has the responsibility of accounting for all office employees and visitors. The Office Personnel Coordinator shall retrieve the guest register and evacuate to the sight evacuation area. The Office Personnel Coordinator must then make a head count of all office employees and visitors. When the roster is complete, the Office Personnel Coordinator is to immediately notify the Emergency Coordinator of the count, including the names and company name of anyone who was not able to evacuate. The Office Personnel Coordinator shall request all visitors to sign out before leaving and assure that there are no injuries. All employees must remain in the Evacuation Area until told to evacuate further either by the Emergency Coordinator or the fire department.

E. Plant Secretary (PS)

The Plant Secretary is responsible for notifying all necessary parties in an emergency, using the Emergency phone list. The Plant Secretary reports to the Communications Coordinator. The Plant Secretary must notify the fire department, office of Emergency Services, and the Liquid Air Emergency Response Network.

At the first indication of an emergency the Plant Secretary shall call the fire department immediately. Then the Plant Secretary must go to the plant switchboard where all phone lines are available. The Plant Secretary must then call other agencies as directed by the Emergency Coordinator. When notifications are complete the Plant Secretary is responsible for monitoring all telephone lines. Outgoing calls are not allowed, except those placed by the Plant Secretary. Incoming calls not related to the emergency are to be terminated in the least amount of time possible. The Plant Secretary is to be courteous, but firm with incoming callers. No mention of the emergency is to be made, in the interest of time. Callers are to be told to call back on the following business day. All calls from local citizens or the news media are to be referred to the Communications Coordinator. Notify all employee's to stay at home unless otherwise directed by the Emergency Coordinator.

4. Emergency Response Procedure

A. General

As soon as an emergency which may cause injury, property, or environmental damage occurs, the individual who notices the problem must report it to their shift manager/supervisor. The shift manager/supervisor sends the individual reporting the emergency to notify both the Emergency Coordinator and the Communication Coordinator. The shift manager/supervisor shall assume the responsibilities of the Emergency Coordinator until the plant manager relieves him of Emergency Coordinator responsibilities. The Communication Coordinator immediately calls the fire department and notifies the Plant Secretary of the problem. The Emergency Coordinator immediately goes to the problem area and assess the situation. The Plant Secretary begins the evacuation and notification procedures while the Communication Coordinator goes to the front gate to wait for the fire department, in order to direct them to the problem area.

B. Earthquake Procedures

In the event of an Earthquake, the shift manager/supervisor assumes the temporary role of the Emergency Coordinator until the Plant Manager relieves him of the Emergency Coordinator duties. The first move the Emergency Coordinator makes will be to survey the facility. All employees are to evacuate as per the General Emergency Plan. If the Emergency Coordinator discovers an emergency situation, he is to immediately notify the Communication Coordinator and activate the Emergency Plant Shutdown. The Communication Coordinator must first go to the evacuation area and coordinate the head count for the Plant Personnel Coordinator the Office Personnel Coordinator. The Plant Personnel Coordinator will report any missing person to the Emergency Coordinator immediately.

Critical Equipment to be checked visually for damage in the event of an earthquake are as follows:

1. Acetylene Generator and foundation.
2. Building Foundations.
3. All storage vessels (cryogenic and high pressure).
4. Compressors (2- air compressor and 1-helium).
5. Cryogenic Pumps.

C. After the Emergency

After the emergency has been controlled, the Emergency Coordinator will ensure the storage/disposal of hazardous material that has resulted from the emergency or containment efforts. The Emergency Coordinator will then complete an incident report and send it to Liquid Air Headquarters within 24 hours.

Important Telephone Numbers

Emergency Response Team (Santa Fe Springs)

Emergency Coordinator-Plant Manager	Milton Bird	(310) 697-0115
Communication Coordinator-Adm.Mgr.	Marlene Powers	(714) 637-7814
Plant Personnel Coordinator	Jim Miller	(714) 971-7915
Plant Personnel Coordinator-	Scott Pace	(213) 698-2557
Plant Secretary	Bev Grant	(714) 526-2170
Office Personnel Coordinator	Fanny Sanchez	(310) 421-3517

NOTIFICATION

LIQUID AIR CORP.	(510) 977-6500	8 AM TO 5 PM
	(800) 231-1366	AFTER HOURS
SANTA FE SPRINGS FIRE DEPT.	(310) 944-9713	
STATE OFFICE OF EMERGENCY SERVICES	(800) 852-7550	
LOCAL EMERGENCY RESPONSE PERSONNEL	911	

We have demonstrated reasonable care in preparing our emergency response plan. All plans and procedures should be adequate in the event of an emergecy involving our hazardous materials.

1 9 9 3

HAZARDOUS MATERIAL

BUSINESS PLAN

LIQUID AIR CORPORATION

8832 Dice Road

Santa Fe Springs, CA. 90670

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303-90.sg

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Date: 2/1/93

Written by: Bryan Leger

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STATE OFFICE OF EMERGENCY SERVICES	(800) 852-7550	
LOCAL EMERGENCY RESPONSE PERSONNEL	911	

We have demonstrated reasonable care in preparing our emergency response plan. All plans and procedures should be adequate in the event of an emergecy involving our hazardous materials.

Ord. 614 N.S.
INSPECTION REPORT

Department of the County Engineer
Industrial Waste Division

Name of Firm BURDETT OXYGEN COMPANY OF CLEVELAND Permit No. #6

Address 2032 DICE RD - LOS NIETOS

Inspected by M. CRON Date 7-26-49

Report DURING INSPECTION TOUR OF THE PLANT MR. GREEN, PLANT OPERATOR STATED THAT NO CHANGES HAD BEEN MADE IN PLANT OPERATION SINCE 5-20-49 (TIME OF LAST INSPECTION)

APPROX 3000 LBS OF SLUDGE & FROM 3000 TO 5000 GALS OF CYLINDER COOLING WATER, PLUS ABOUT 5 GALS CAUSTIC SLUDGE WASTE ARE DISPOSED OF DAILY. THE SLUDGE & COOLING WATER TO THE OPEN LIME PIT AT EAST SIDE OF PLANT, & THE 5 GALS OF CAUSTIC IS DUMPED AROUND PLANT ON GROUND.

Effluent sampled (~~Yes~~) (No) _____ Sample marked _____,

delivered to laboratory on _____ for determination of

Laboratory report received _____

6/3/49

DICE 02342

Ord. 614 N.S.
INSPECTION REPORT

Department of the County Engineer
Industrial Waste Division

Name of Firm Burdett Oxygen Company of Permit No. 6
Address 2032 Dice Cleveland Road, Los Nietos.
Inspected by J Joseph Date 5/20/49

Report Mr. Green, plant operator, stated that no changes had been made subsequent to last inspection 11/16/48. Discharge emptied into an open channel extending to a pit to the east of the building. pH = 7

Effluent sampled ~~(Yes)~~ (No). Sample marked ,
delivered to laboratory on for determination of :

Laboratory report received

3/48

DICE 02343

cw/4/1/49

Ord. 614 N.S.
INSPECTION REPORT

Department of the County Engineer
Industrial Waste Division

Name of Firm Burdette Oxygen Co. of Cleveland Permit No. 6

Address 2032 Dice Road, Los Nietos

Inspected by J.H. Stewart Date 11/16/48

Report Mr. Green Plant Operator

Water is added to calcium carbide forming C_2H_2 gas in an automatic generator. The gas passes through a water scrubber and then into a tank filled with dry caustic to remove the water. It then passes through compound called Maxite where pasphine, hydrogen sulphide and ammonia are removed and then through another caustic drier. The waste sludge from the generator goes to a open pit on the east side of the property. The only waste besides the sludge is the small amount of water removed from the drier. This is dumped on the ground - pH-13.0

Effluent sampled (Yes) (No). No Sample marked ,

delivered to laboratory on for determination of :

Laboratory report received

3/48

DICE 02344

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#1

Sample Number
9050961

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	91
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	4.1
Chromium	(7191)	560	2500	0.5	92
Cobalt	(7200)	80	8000	1.0	4.4
Copper	(7210)	25	2500	1.0	110
Iron	(7380)	NA	NA	1.0	21000
Lead	(7420)	5.0	1000	1.0	140
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	10
Nickel	(7520)	20	2000	1.0	60
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	35
Zinc	(7950)	250	5000	1.0	680
Calcium	(7140)	NA	NA	1.0	270000
Sodium	(7770)	NA	NA	1.0	40000
Magnesium	(7450)	NA	NA	1.0	4600
Potassium	(7610)	NA	NA	1.0	2800

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irivne, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/19/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample #1	9050961

PCBs

	Detection Limit mg/Kg	Sample Results mg/Kg
PCB-1016	10	N.D.
PCB-1221	10	N.D.
PCB-1232	10	N.D.
PCB-1242	10	N.D.
PCB-1248	10	N.D.
PCB-1254	10	N.D.
PCB-1260	10	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

This analysis was performed using EPA method 8080.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 1	9050961

Volatile Organics by Mass Spectrometry

	Detection Limit ug/Kg	Sample Results ug/Kg
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
trans-1,2 Dichloroethene	100	N.D.
Methylene Chloride	100	N.D.
Chloroform	100	N.D.
Bromodichloromethane	100	N.D.
Dibromochloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Chloromethane	100	N.D.
Chloroethane	100	N.D.
Vinyl Chloride	100	N.D.
1,2-Dichloropropane	100	N.D.
1,3-Dichloropropenes	100	N.D.
Carbon Tetrachloride	100	N.D.
Trichlorofluoromethane	500	N.D.
1,1,2-Trichloroethane	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

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Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/22/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 1	9050961

Volatile Organics by Mass Spectrometry

	Detection Limit ug/Kg	Sample Results ug/Kg
Benzene	100	N.D.
Toluene	100	170
Ethylbenzene	100	N.D.
Chlorobenzene	100	N.D.
Xylenes (sum of 3 isomers)	100	N.D.
Acetone	500	N.D.
2-Butanone	500	N.D
Carbon Disulfide	200	N.D.
Vinyl Acetate	200	N.D.
4-Methyl-2-pentanone	200	N.D.
2-Hexanone	200	N.D.
Styrene	200	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	90 %
Toluene-d8	94 %
4-Bromofluorobenzene	103 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

ensco

WASTE MATERIAL DATA SHEET

No. 83809

A CUSTOMER INFORMATION

CUSTOMER NAME: Ensco Environmental Services
MAILING ADDRESS: 17062 Murphy Ave
Irvine CA 92714
FACILITY ADDRESS: Job #5515
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8882 Dice Rd.
Santa Fe Springs CA 90760
FACILITY ADDRESS: Same
EPA I.D. NO.: CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME: Mining Dust Solidified
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: Acetylene Gas Purification SIC
Does waste vary by Amount? Composition? Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process. Analytical Attachments

HEALTH	2				
FLAMMABILITY	0				
REACTIVITY	0				

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR Yellowish/Green
ODOR Straight
☐ NONE ☐ STRONG ☐ MILD
☐ LIQUID ☒ SOLID ☐ SLUDGE ☐ POWDER
% FREE
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.2				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

ATTACHMENTS Y

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify: ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste?
Please give USEPA hazardous waste codes:
D001 D006
D008
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: Hazardous Waste Solid NOS
HAZARD CLASS: ORM-E ID #: NA 9189 R/Q: None
ANTICIPATED VOLUME: GAL. YDS.: 100 LBS. PER:
☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER , in bulk? by rail?
Specify type and size of container: DH-55gal

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☒ 1.4-1.7 ☐ 0.8-1.0 ☐ >1.7 ☐ 1.0-1.2 ☐ 1.2-1.4 Actual

2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 Actual ☐ 1,000-19,000 ☒ > 10,000

3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 Actual link

4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☒ >20 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 Actual

5 pH: ☐ <2 ☐ >12.5 ☒ 2-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 Actual

6 BTU's 1000/lbs.: ☐ <1 ☐ 12-16 ☐ 1-4 ☐ >16 ☐ 4-8 ☐ 8-12 Actual link

7 FLASH POINT (closed cup): ☐ <100°F ☒ >200°F ☐ 100°-140°F ☐ 140°-200°F Actual

8 SULFUR (% WT.): ☐ <0.5 ☐ >5 ☐ 0.5-2.0 ☐ 2-5 Actual link

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50		ACTUAL
☒ BROMINE	☒	☐	☐	☐	☐	
☒ CHLORINE	☒	☒	☐	☐	☐	10%
☒ FLUORINE	☒	☐	☐	☐	☐	

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		36	P		ND	PCB	ND	
As		9.5	Se		ND	Sb		ND	CYANIDES	ND	
Ba		2.5	Cu		7.2	Si		ND	SULFIDES	ND	
Cd		2.2	K		400	organic silicon only			DIOXIN	ND	
Cr		11	Na		1600	Sn		ND	OTHERS (SPECIFY)		
Hg		ND	Mn		ND	Zn		ND			

I

Does waste contain SOLVENTS? X If yes, specify Trichloroethane 10%
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE TITLE DATE

ENSCO USE ONLY
PC
DATE RECEIVED

LAB COPY

DICE 02349

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

#15

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#15

Sample Number
9050974

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	9.5
Barium	(7080)	100	10000	10	25
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	11
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	7.2
Iron	(7380)	NA	NA	1.0	3200
Lead	(7420)	5.0	1000	1.0	36
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	1.4
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	12
Zinc	(7950)	250	5000	1.0	23
Calcium	(7140)	NA	NA	1.0	400
Sodium	(7770)	NA	NA	1.0	1600
Magnesium	(7450)	NA	NA	1.0	270
Potassium	(7610)	NA	NA	1.0	400

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

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Ensco Environmental Services
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Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#15

Sample Number
9060974

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	1600
Potassium	(7610)	1.0	400
Chloride	(9252)	1.0	500
Nitrate	(9200)	1.0	38
Sulfate	(9038)	1.0	50
pH	(9040)	NA	4.7

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

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Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 15	9050974

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	100000
Trichloroethene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
trans-1,2 Dichloroethene	50	N.D.
Methylene Chloride	50	N.D.
Chloroform	50	N.D.
Bromodichloromethane	50	N.D.
Dibromochloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Chloromethane	50	N.D.
Chloroethane	50	N.D.
Vinyl Chloride	50	N.D.
1,2-Dichloropropane	50	N.D.
1,3-Dichloropropenes	50	N.D.
Carbon Tetrachloride	50	N.D.
Trichlorofluoromethane	250	N.D.
1,1,2-Trichloroethane	50	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
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Ensco Environmental Services
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Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 15	9050974

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Benzene	50	N.D.
Toluene	50	N.D.
Ethylbenzene	50	N.D.
Chlorobenzene	50	N.D.
Xylenes (sum of 3 isomers)	50	N.D.
Acetone	250	N.D.
2-Butanone	250	N.D
Carbon Disulfide	100	N.D.
Vinyl Acetate	100	N.D.
4-Methyl-2-pentanone	100	N.D.
2-Hexanone	100	N.D.
Styrene	100	N.D.

N.D. - None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	102 %
Toluene-d8	92 %
4-Bromofluorobenzene	102 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
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19

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#19

Sample Number
9050978

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	1036
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	50
Sodium	(7770)	NA	NA	1.0	54
Magnesium	(7450)	NA	NA	1.0	3.1
Potassium	(7610)	NA	NA	1.0	8600

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

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Ensco Environmental Services
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Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#19

Sample Number
9060978

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	54
Potassium	(7610)	1.0	8600
Chloride	(9252)	1.0	100
Nitrate	(9200)	1.0	180
Sulfate	(9038)	1.0	40
pH	(9040)	NA	10.2

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

ensco

WASTE MATERIAL DATA SHEET

No. 83780

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES INC
MAILING ADDRESS: 17062 B MURPHY AVE
IRVINE CA 92714
~~FACILITY ADDRESS~~: SAME
EPA I.D. NO. CAD 980815054

GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
MAILING ADDRESS: 8832 DICE RD
SANTA FE SPRINGS CA 90670
FACILITY ADDRESS: SAME
EPA I.D. NO. CAL-000021160

B WASTE IDENTIFICATION

WASTE NAME: Petroleum distillates
Is this waste normally generated at FACILITY? X (N)
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURER SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

HEALTH					
FLAMMABILITY					
REACTIVITY					

Attachments

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: BROWN
ODOR: X NONE ☐ STRONG ☐ MILD
X LIQUID 100 % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER
PHASES: X SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.1				
% SOLIDS	0-1				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:
Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA? X ATTACHMENT
If yes, specify: ATTACHMENT

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes: D001
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: RQ WASTE COMBUSTIBLE LIQUID NOS
HAZARD CLASS: COMBUSTIBLE ID # NA1993 R/Q D001
ANTICIPATED VOLUME: 1000 GAL. YDS. LBS. PER:
☐ ONE TIME ☐ WK ☐ MO X YR OTHER , in bulk? by rail?
Specify type and size of container: 55 gal 17H Drums

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 X 1.0-1.2 ☐ 1.2-1.4 ☐ 1.4-1.7 ☐ >1.7 Actual
2 VISCOSITY (centipoise): ☐ 1-100 X 100-1,000 ☐ 1,000-19,000 ☐ > 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ 0.5-2.0 X 2-5 ☐ 5-20 ☐ >20 Actual
5 pH: ☐ <2 ☐ 2-6 X 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 Actual Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 UNK Actual
7 FLASH POINT (closed cup): ☐ <100°F X 100°-140°F ☐ 140°-200°F ☐ >200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 UNK Actual
9 HALOGENS (% WT.): <1 1-10 10-50 >50 ACTUAL
☐ BROMINE ☐ ☐ ☐ ☐ ☐
☐ CHLORINE ☐ ☐ ☐ ☐ ☐
☐ FLUORINE ☐ ☐ ☐ ☐ ☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		TR	P		ND
As			Se		ND	Sb		
Ba			Cu			Si		
Cd			K			organic silicon only		
Cr		TR	Na			Sn		ND
Hg		ND	Mn			Zn		

	TOTAL (%WT.)	EP EXTRACT (PPM)
PCB	ND	
CYANIDES	ND	
SULFIDES	ND	
DIOXIN	ND	
OTHERS (SPECIFY)		

ATTACHMENTS

I

Does waste contain SOLVENTS? X If yes, specify petroleum distillates
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE [signature] TITLE PLT. MGR. DATE 6-29-89

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DATE RECEIVED

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DICE 02356

Del Mar Analytical
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(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/21/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 26	9050985

Volatile Organics by Mass Spectrometry

	Detection Limit mg/L	Sample Results mg/L
Tetrachloroethene	10	N.D.
1,1,1-Trichloroethane	10	N.D.
Trichloroethene	10	N.D.
1,1-Dichloroethane	10	N.D.
1,2-Dichloroethane	10	N.D.
1,1-Dichloroethene	10	N.D.
trans-1,2 Dichloroethene	10	N.D.
Methylene Chloride	10	N.D.
Chloroform	10	N.D.
Bromodichloromethane	10	N.D.
Dibromochloromethane	10	N.D.
Bromoform	10	N.D.
Bromomethane	10	N.D.
Chloromethane	10	N.D.
Chloroethane	10	N.D.
Vinyl Chloride	10	N.D.
1,2-Dichloropropane	10	N.D.
1,3-Dichloropropenes	10	N.D.
Carbon Tetrachloride	10	N.D.
Trichlorofluoromethane	50	N.D.
1,1,2-Trichloroethane	10	N.D.
1,1,2,2-Tetrachloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
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Enseco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Extracted: 06/27/89
Date Reported: 06/27/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 26	9050985

Semi-Volatile Organics by Mass Spectrometry

	Detection Limit mg/Kg	Sample Results mg/Kg
Di-n-octylphthalate	2	N.D.
Dibutylphthalate	2	N.D.
Isophorone	2	N.D.
Benzidine	50	N.D.
2,4-Dinitrotoluene	2	N.D.
2,6-Dinitrotoluene	2	N.D.
1,2-Diphenylhydrazine	2	N.D.
2-Methyl 4,6-dinitrophenol	2	N.D.
Nitrobenzene	2	N.D.
2-Nitrophenol	2	N.D.
4-Nitrophenol	10	N.D.
N-Nitrosodimethylamine	2	N.D.
N-Nitrosodi n-propylamine	2	N.D.
N-Nitrosodiphenylamine	2	N.D.
2-Chloronapthalene	2	N.D.
1,3 Dichlorobenzene	2	N.D.
1,2-Dichlorobenzene	2	N.D.
1,4-Dichlorobenzene	2	N.D.
3,3 Dichlorobenzidine	2	N.D.
Hexachlorobenzene	2	N.D.
Hexachloroethane	2	N.D.
Hexachlorocyclopentadiene	2	N.D.
Pentachlorophenol	2	N.D.
Phenol	2	N.D.
1,2,4-Trichlorobenzene	2	N.D.
2,4,6-Trichlorophenol	2	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8270.

Del Mar Analytical
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Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Extracted: 06/27/89
Date Reported: 06/27/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description: Liquid Sample 26

Sample Number: 9050985

Semi-Volatile Organics by Mass Spectrometry

	Detection Limit mg/Kg	Sample Results mg/Kg
Acenapthene	2	N.D.
Acenaphthalene	2	N.D.
Anthracene	2	N.D.
Benzo (a) anthracene	2	N.D.
Benzo (b) fluoranthene	2	N.D.
Benzo (k) fluoranthene	2	N.D.
Benzo (g,h,i) perylene	2	N.D.
Chrysene	2	N.D.
Dibenzo (a,h) anthracene	2	N.D.
Fluoranthene	2	N.D.
Fluorene	2	N.D.
Indeno (1,2,3-c,d) pyrene	2	N.D.
Naphthalene	2	N.D.
Phenanthrene	2	N.D.
Pyrene	2	N.D.
Bis (2-chloroethyl) ether	2	N.D.
Bis (2-chloroethoxy) methane	2	N.D.
Bis (2-ethylhexyl) phthalate	10	N.D.
Bis (2-chloroisopropyl) ether	2	N.D.
4-Bromophenyl phenyl ether	2	N.D.
Butyl benzyl phthalate	2	N.D.
4-Chloro-3-methylphenol	2	N.D.
2-Chlorophenol	2	N.D.
4-Chlorophenyl ether	2	N.D.
Benzo (a) pyrene	2	N.D.
2,4-Dichlorophenol	2	N.D.
Diethylphthalate	2	5
2,4-Dimethylphenol	2	N.D.
Dimethylphthalate	2	N.D.
2,4-Dinitrophenol	10	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Staube
Laboratory Director

Method of Analysis: EPA 8270.

Del Mar Analytical
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(714) 261-1022 • FAX (714) 261-1228

#26

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/21/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 26	9050985

Volatile Organics by Mass Spectrometry

	Detection Limit mg/L	Sample Results mg/L
Benzene	10	N.D.
Toluene	10	N.D.
Ethylbenzene	10	N.D.
Chlorobenzene	10	N.D.
Xylenes (sum of 3 isomers)	10	N.D.
Acetone	50	N.D.
2-Butanone	50	N.D
Carbon Disulfide	20	N.D.
Vinyl Acetate	20	N.D.
4-Methyl-2-pentanone	20	N.D.
2-Hexanone	20	N.D.
Styrene	20	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	97 %
Toluene-d8	89 %
4-Bromofluorobenzene	100 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

ensco

WASTE MATERIAL DATA SHEET

No. 83799

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES
MAILING ADDRESS: 17062 B MURPHY AVE
IRVINE CA 92714
~~FACILITY ADDRESS:~~ SAME
EPA I.D. NO. CAD 980815054

GENERATOR INFORMATION

GENERATOR NAME LIQUID AIR CORPORATION
MAILING ADDRESS 8832 DICE RD
SANTA FE SPRINGS CA 90670
FACILITY ADDRESS SAME
EPA I.D. NO. CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME SPILLED PETROLEUM DISTILLATES
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste INDUSTRIAL GAS MANUFACTURING
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

HEALTH	1				
FLAMMABILITY	0				
REACTIVITY	0				

Attachments X

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR BROWN
ODOR
☒ NONE ☐ STRONG ☐ MILD
☐ LIQUID ____ % FREE
☒ SOLID ☐ SLUDGE ☐ POWDER
PHASES ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.6				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ____ ATTACHMENTS X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify: ____ ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:

Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION DOT hazardous material X

PROPER SHIPPING NAME CALIFORNIA REGULATED WASTE ONLY (SOLID
HAZARD CLASS NA ID # NA R/Q
ANTICIPATED VOLUME ____ GAL, ____ YDS., 1000 LBS., PER:
☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____, in bulk? by rail?
Specify type and size of container: 17H 55 GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 ☐ 1.0-1.2 ☐ 1.2-1.4 ☒ 1.4-1.7 ☐ >1.7 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 ☒ > 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 ☒ >20 Actual
5 pH: ☐ <2 ☐ 2-6 ☒ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 Actual Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 Actual UNK
7 FLASH POINT (closed cup): ☐ <100°F ☐ 100°-140°F ☐ 140°-200°F ☒ >200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 UNK Actual
9 HALOGENS (% WT.): <1 1-10 10-50 >50 ACTUAL
☐ BROMINE ☐ CHLORINE ☐ FLUORINE

10 CONSTITUENTS

TOTAL (%WT.)	EP EXTRACT (PPM)	TOTAL (%WT.)	EP EXTRACT (PPM)	TOTAL (%WT.)	EP EXTRACT (PPM)
Ag	ND	Pb	ND	P	ND
As		Se		Sb	
Ba		Cu		Si	organic silicon only
Cd		K			
Cr		Na		Sn	ND
Hg		Mn		Zn	

	TOTAL (%WT.)	EP EXTRACT (PPM)
PCB	ND	
CYANIDES	ND	
SULFIDES	ND	
DIOXIN	ND	
OTHERS (SPECIFY)		

ATTACHMENTS

I

Does waste contain SOLVENTS? X If yes, specify Petroleum distillates
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE [signature] TITLE PIT MGR DATE 6-24-99

PC ENSCO USE ONLY
DATE RECEIVED

DICE 02361

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

27

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Soil Sample 27	9050986

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Tetrachloroethene	1	N.D.
1,1,1-Trichloroethane	1	8.0
Trichloroethene	1	N.D.
1,1-Dichloroethane	1	N.D.
1,2-Dichloroethane	1	N.D.
1,1-Dichloroethene	1	N.D.
trans-1,2 Dichloroethene	1	N.D.
Methylene Chloride	1	N.D.
Chloroform	1	N.D.
Bromodichloromethane	1	N.D.
Dibromochloromethane	1	N.D.
Bromoform	1	N.D.
Bromomethane	1	N.D.
Chloromethane	1	N.D.
Chloroethane	1	N.D.
Vinyl Chloride	1	N.D.
1,2-Dichloropropane	1	N.D.
1,3-Dichloropropenes	1	N.D.
Carbon Tetrachloride	1	N.D.
Trichlorofluoromethane	5	N.D.
1,1,2-Trichloroethane	1	N.D.
1,1,2,2-Tetrachloroethane	1	N.D.
2-Chloroethylvinyl ether	1	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Soil Sample 27	9050986

Volatile Organics by Mass Spectrometry

	Detection Limit mg/kg	Sample Results mg/kg
Benzene	1	N.D.
Toluene	1	N.D.
Ethylbenzene	1	N.D.
Chlorobenzene	1	N.D.
Xylenes (sum of 3 isomers)	1	N.D.
Acetone	5	N.D.
2-Butanone	5	N.D
Carbon Disulfide	2.5	N.D.
Vinyl Acetate	2.5	N.D.
4-Methyl-2-pentanone	2.5	N.D.
2-Hexanone	2.5	N.D.
Styrene	2.5	N.D.

N.D. - None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	83 %
Toluene-d8	92 %
4-Bromofluorobenzene	101 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

NO. [illegible]

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICE INC
MAILING ADDRESS: 17002 B MURPHY AVE
IRVINE CA 92714
FACILITY ADDRESS: SAME
EPA I.D. NO. CAD 980815054

GENERATOR INFORMATION

GENERATOR NAME: LIQUIDAIR CORPORATION
MAILING ADDRESS: 8832 DICKERO
SANTA FE SPRINGS CA 90671
FACILITY ADDRESS: SAME
EPA I.D. NO. CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME: Alkaline cleaner solvent spent + solidified
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURER SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data constituents of waste and materials used in process.

HEALTH	2			
FLAMMABILITY	0			
REACTIVITY	0			

Attachments: Y/N

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: WHITE
ODOR: ☒ NONE ☐ STRONG ☐ MILD
☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.5				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:
ATTACHMENT X
Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
ATTACHMENT
If yes, specify:

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: CALIFORNIA REGULATED WASTE ONLY (SOLID)
HAZARD CLASS: N/A ID #: NA R/Q
ANTICIPATED VOLUME ____ GAL ____ YDS. 5000 LBS. PER
☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____, in bulk? X by rail?
Specify type and size of container: 17H 55GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☒ 1.4-1.7 ☐ 0.8-1.0 ☐ >1.7 ☐ 1.0-1.2 ☐ 1.2-1.4 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 Actual ☐ 1,000-19,000 ☒ >10,000
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☒ >20 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 Actual
5 pH: ☐ <2 ☐ >12.5 ☐ 2-6 9.5 Actual ☐ 6-8 ☒ 8-10 ☐ 10-12.5 Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 12-16 ☐ 1-4 ☐ >16 ☐ 4-8 ☐ 8-12 Actual
7 FLASH POINT (closed cup): ☐ <100°F ☒ >200°F ☐ 100°-140°F ☐ 140°-200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ >5 UNK ☐ 0.5-2.0 ☐ 2-5 Actual
9 HALOGENS (% WT.): <1 / 1-10 / 10-50 / >50 / ACT
☐ BROMINE ☐ CHLORINE ☐ FLUORINE

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		NO	Pb		2.4	P		NO	PCB	NO	
As		NO	Se		NO	Sb		NO	CYANIDES	NO	
Ba		NO	Cu		12	Si		NO	SULFIDES	NO	
Cd		NO	K		9200	organic silicon only			DIOXIN	NO	
Cr		NO	Na		5400	Sn		NDK	OTHERS (SPECIFY)		
Hg		NO	Mn		UNK	Zn		1.4			

I

Does waste contain SOLVENTS? X If yes, specify: Petroleum hydrocarbons.
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE: [signature] TITLE: Pct. Mgr. DATE: 6-29-89

ENSCO USE ONLY: PC ____ DATE RECEIVED ____

LAB COPY

DICE 02364

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

#28

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#28

Sample Number
9050987

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	1.2
Iron	(7380)	NA	NA	1.0	220
Lead	(7420)	5.0	1000	1.0	2.4
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	1.8
Calcium	(7140)	NA	NA	1.0	100
Sodium	(7770)	NA	NA	1.0	5400
Magnesium	(7450)	NA	NA	1.0	14
Potassium	(7610)	NA	NA	1.0	9200

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#28

Sample Number
9060987

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	5400
Potassium	(7610)	1.0	9200
Chloride	(9252)	1.0	150
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	760
pH	(9040)	NA	9.5

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

ensco

WASTE MATERIAL DATA SHEET

No. 83776

A CUSTOMER INFORMATION

CUSTOMER NAME: Ensco Environmental Services
MAILING ADDRESS: 17062 Murphy Ave Irvine CA 92714
FACILITY ADDRESS:
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8832 Dice Rd Santa Fe Springs CA 90670
FACILITY ADDRESS
EPA I.D. NO. CAD000021160

B WASTE IDENTIFICATION

WASTE NAME: Paint removed with Alkaline Solution
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data constituents of waste and materials used in process. Attachments: Analytical

HEALTH	2				
FLAMMABILITY	2				
REACTIVITY	0				

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR Brownish Yellow
ODOR
☒ NONE ☐ STRONG ☐ MILD
☒ LIQUID 100 % FREE ☒ SOLID ☐ SLUDGE ☐ POWDER
PHASES: ☐ SINGLE LAYER ☒ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	50	50			
DENSITY	1.0	1.5			
% SOLIDS	20	100%			

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify:

ATTACHMENTS X

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D007
D008
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: Hazardous Waste, Liquid NOS
HAZARD CLASS: ORM ID #: NA9189 R/Q
ANTICIPATED VOLUME: 10000 GAL. YDS. LBS. PER: ☐ ONE TIME ☐ WK ☐ MO ☒ YR. OTHER in bulk? X by rail?
Specify type and size of container: 17E Drums 55gal

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 ☒ 1.0-1.2 ☐ 1.2-1.4 ☐ 1.4-1.7 ☐ >1.7 Actual

2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 ☒ >10,000 Actual

3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 unk Actual

4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 ☒ >20 Actual

5 pH: ☐ <2 ☐ 2-6 ☒ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 Actual Constituent

6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 unk Actual

7 FLASH POINT (closed cup): ☐ <100°F ☐ 100°-140°F ☐ 140°-200°F ☒ >200°F Actual

8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 unk Actual

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
BROMINE	☒	☐	☐	☐	☐
CHLORINE	☒	☐	☐	☐	☐
FLUORINE	☒	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag	ND		Pb		0-5ppm	P	ND		PCB		None
As			Se	ND		Sb			CYANIDES		
Ba			Cu			Si			SULFIDES		
Cd		0-5ppm	K			organic silicon only			DIOXIN		
Cr		0-5ppm	Na			Sn			OTHERS (SPECIFY)		
Hg	ND		Mn			Zn					

I

Does waste contain SOLVENTS? X If yes, specify Petroleum Hydrocarbons <1%
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE: Dethylphthalate < 1%

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE | TITLE Plant Mgr | DATE 7-6-89 | PC | DATE REC'D

Need signature

LAB COPY

DICE 02367

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

39

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#39

Sample Number
9050998

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	0.15
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	1.4
Iron	(7380)	NA	NA	1.0	24
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	5.6
Calcium	(7140)	NA	NA	1.0	180000
Sodium	(7770)	NA	NA	1.0	1600
Magnesium	(7450)	NA	NA	1.0	72
Potassium	(7610)	NA	NA	1.0	18000

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Enaco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Extracted: 06/27/89
Date Reported: 06/27/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 39	9050998

Semi-Volatile Organics by Mass Spectrometry

	Detection Limit mg/Kg	Sample Results mg/Kg
Acenapthene	2	N.D.
Acenaphthalene	2	N.D.
Anthracene	2	N.D.
Benzo (a) anthracene	2	N.D.
Benzo (b) fluoranthene	2	N.D.
Benzo (k) fluoranthene	2	N.D.
Benzo (g,h,i) perylene	2	N.D.
Chrysene	2	N.D.
Dibenzo (a,h) anthracene	2	N.D.
Fluoranthene	2	N.D.
Fluorene	2	N.D.
Indeno (1,2,3-c,d) pyrene	2	N.D.
Naphthalene	2	N.D.
Phenanthrene	2	N.D.
Pyrene	2	N.D.
Bis (2-chloroethyl) ether	2	N.D.
Bis (2-chloroethoxy) methane	2	N.D.
Bis (2-ethylhexyl) phthalate	10	N.D.
Bis (2-chloroisopropyl) ether	2	N.D.
4-Bromophenyl phenyl ether	2	N.D.
Butyl benzyl phthalate	2	N.D.
4-Chloro-3-methylphenol	2	N.D.
2-Chlorophenol	2	N.D.
4-Chlorophenyl ether	2	N.D.
Benzo (a) pyrene	2	N.D.
2,4-Dichlorophenol	2	N.D.
Diethylphthalate	2	5
2,4-Dimethylphenol	2	N.D.
Dimethylphthalate	2	N.D.
2,4-Dinitrophenol	10	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Method of Analysis: EPA 8270.

Gary Steube
Laboratory Director

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Extracted: 06/27/89
Date Reported: 06/27/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Liquid Sample 39	9050998

Semi-Volatile Organics by Mass Spectrometry

	Detection Limit mg/Kg	Sample Results mg/Kg
Di-n-octylphthalate	2	N.D.
Dibutylphthalate	2	N.D.
Isophorone	2	N.D.
Benzidine	50	N.D.
2,4-Dinitrotoluene	2	N.D.
2,6-Dinitrotoluene	2	N.D.
1,2-Diphenylhydrazine	2	N.D.
2-Methyl 4,6-dinitrophenol	2	N.D.
Nitrobenzene	2	N.D.
2-Nitrophenol	2	N.D.
4-Nitrophenol	10	N.D.
N-Nitrosodimethylamine	2	N.D.
N-Nitrosodi n-propylamine	2	N.D.
N-Nitrosodiphenylamine	2	N.D.
2-Chloronapthalene	2	N.D.
1,3 Dichlorobenzene	2	N.D.
1,2-Dichlorobenzene	2	N.D.
1,4-Dichlorobenzene	2	N.D.
3,3 Dichlorobenzidine	2	N.D.
Hexachlorobenzene	2	N.D.
Hexachloroethane	2	N.D.
Hexachlorocyclopentadiene	2	N.D.
Pentachlorophenol	2	N.D.
Phenol	2	N.D.
1,2,4-Trichlorobenzene	2	N.D.
2,4,6-Trichlorophenol	2	N.D.

N.D. - None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8270.

ensco

WASTE MATERIAL DATA SHEET

No. 83775

A CUSTOMER INFORMATION

CUSTOMER NAME: Ensco Environmental Services
MAILING ADDRESS: 17062 Murphy Ave. Irvine CA 92714
FACILITY ADDRESS:
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8833 Dice Rd Santa Fe Springs CA
FACILITY ADDRESS: Same
EPA I.D. NO. CAL 000023160

B WASTE IDENTIFICATION

WASTE NAME: Pipe Cleaning Solution Solidified
Is this waste normally generated at FACILITY? (Y) (N)
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? (Y) (N) Composition? (Y) (N) Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data: constituents of waste and materials used in process.

HEALTH	3				
FLAMMABILITY	1				
REACTIVITY	0				

Attachments

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: Clear with white
ODOR: None
(X) NONE ( ) STRONG ( ) MILD
( ) LIQUID ____ % FREE
(X) SOLID
( ) SLUDGE
( ) POWDER
PHASES: (X) SINGLE LAYER ( ) DOUBLE LAYER ( ) MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	40				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA? ATTACHMEN X
If yes, specify: ATTACHMEN

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D007
D008
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION HAZ WASTE SOLIDS DOT hazardous material

PROPER SHIPPING NAME: ~~Waste Corrosive Solid~~
HAZARD CLASS: ~~Corrosive~~ UN/NA ID # ~~UN2801~~ R/Q
ANTICIPATED VOLUME ____ GAL. ____ YDS. 8000 LBS., PER: ( ) ONE TIME ( ) WK ( ) MO (X) YR. OTHER ____, in bulk? by rail?
Specify type and size of container: 17H Drums 55gal

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
( ) <0.8 ( ) 1.4-1.7
( ) 0.8-1.0 ( ) >1.7
(X) 1.0-1.2 ____ Actual
( ) 1.2-1.4

2 VISCOSITY (centipoise)
( ) 1-100 ____ Actual
( ) 100-1,000
( ) 1,000-19,000
(X) > 10,000

3 ASH (%WT.)
( ) <0.1
( ) 0.1-1.0
( ) 1-5
( ) 5-20 unk Actual
( ) >20

4 TOTAL SUSPENDED SOLIDS (% WT.)
( ) <0.5 (X) >20
( ) 0.5-2.0 100 Actual
( ) 2-5
( ) 5-20

5 pH
( ) <2 ( ) >12.5
( ) 2-6 ____ Actual
(X) 6-8
( ) 8-10 ____ Constituent
( ) 10-12.5

6 BTU's 1000/lbs.
( ) <1 ( ) 12-16
( ) 1-4 ( ) >16
( ) 4-8 unk Actual
( ) 8-12

7 FLASH POINT (closed cup)
( ) <100°F (X) >200°F
( ) 100°-140°F ____ Actual
( ) 140°-200°F

8 SULFUR (% WT.)
( ) <0.5 ( ) >5
( ) 0.5-2.0 unk Actual
( ) 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTL
(X) BROMINE	(X)	( )	( )	( )	( )
(X) CHLORINE	(X)	( )	( )	( )	( )
(X) FLUORINE	(X)	( )	( )	( )	( )

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag	unk		Pb		0-5 ppm	P	unk		PCB	ND	
As			Se	unk		Sb			CYANIDES		
Ba			Cu			Si			SULFIDES		
Cd	0		K			organic silicon only			DIOXIN		
Cr		0-5 ppm	Na			Sn			OTHERS (SPECIFY)		
Hg	unk		Mn	0		Zn					

I

Does waste contain SOLVENTS? X If yes, specify
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE ____ TITLE ____ DATE ____

PC ____ ENSCO USE ONLY
DATE RECEIVED

DICE 02371

ensco

WASTE MATERIAL DATA SHEET

No. 83806

A CUSTOMER INFORMATION

CUSTOMER NAME: Ensco Environmental Services
MAILING ADDRESS: ~~8832 Dice Rd.~~ 17062 Murphy Ave Irvine CA
FACILITY ADDRESS: Job # 5505F
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8832 Dice Rd. Santa Fe Springs CA 90760
FACILITY ADDRESS
EPA I.D. NO. CHL0000 21160

B WASTE IDENTIFICATION

WASTE NAME: Ion Exchange Resin Contaminated w/ Solvents
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? Composition? Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data conditions of waste and materials used in process. Analytical
Attachments

HEALTH	2				
FLAMMABILITY	3				
REACTIVITY	0				

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: Brownish
ODOR: Slight
☐ NONE ☐ STRONG ☐ MILD

☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER

PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.0				
% SOLIDS	100.				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: Analytical Attached PVA Bulls
ATTACHMENTS X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify:
ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste?
Please give USEPA hazardous waste codes: D001

Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION DOT hazardous material

PROPER SHIPPING NAME: Hazardous Waste Solid NOS
HAZARD CLASS: ORM-E ID # NA 9189 R/Q D001
ANTICIPATED VOLUME ____ GAL. ____ YDS., 5000 LBS., PER: ☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____, in bulk? X by rail?
Specify type and size of container: 1H-55gal Drum

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☐ 1.4-1.7
☐ 0.8-1.0 ☐ >1.7
☒ 1.0-1.2 ____ Actual
☐ 1.2-1.4

2 VISCOSITY (centipoise)
☐ 1-100 ____ Actual
☐ 100-1,000
☐ 1,000-19,000
☒ > 10,000

3 ASH (%WT.)
☐ <0.1
☐ 0.1-1.0
☐ 1-5
☐ 5-20 unk Actual
☐ >20

4 TOTAL SUSPENDED SOLIDS (% WT.)
☐ <0.5 ☒ >20
☐ 0.5-2.0 ____ Actual
☐ 2-5
☐ 5-20

5 pH
☐ <2 ☐ >12.5
☒ 2-6 ____ Actual
☐ 6-8
☐ 8-10 ____ Constituent
☐ 10-12.5

6 BTU's 1000/lbs.
☐ <1 ☐ 12-16
☐ 1-4 ☐ >16
☐ 4-8 unk Actual
☐ 8-12

7 FLASH POINT (closed cup)
☐ <100°F ☐ >200°F
☒ 100°-140°F ____ Actual
☐ 140°-200°F

8 SULFUR (% WT.)
☐ <0.5 ☐ >5
☐ 0.5-2.0 unk Actual
☐ 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
☐ BROMINE	☒	☐	☐	☐	☐ ____
☐ CHLORINE	☒	☐	☐	☐	☐ ____
☐ FLUORINE	☒	☐	☐	☐	☐ ____

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		N/D	Pb		N/D	P		N/D	PCB	N/D	
As			Se			Sb			CYANIDES		
Ba			Cu			Si			SULFIDES		
Cd			K				organic silicon only		DIOXIN		
Cr			Na			Sn			OTHERS (SPECIFY)		
Hg			Mn			Zn					

I

Does waste contain SOLVENTS? If yes, specify: Vinyl Acetate - 2300 mg/kg
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE: Toluene 1100 ppm TCE 3400
Trans 1,2, Dichloroethene 150 mg/kg

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE ____ TITLE ____ DATE ____

ENSCO USE ONLY
RC
DATE RECEIVED

LAB COPY

DICE 02372

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ion Exchange Resin
#34

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Globules 34	9050993

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	3400
Trichloroethene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
trans-1,2 Dichloroethene	50	150
Methylene Chloride	50	N.D.
Chloroform	50	N.D.
Bromodichloromethane	50	N.D.
Dibromochloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Chloromethane	50	N.D.
Chloroethane	50	N.D.
Vinyl Chloride	50	N.D.
1,2-Dichloropropane	50	N.D.
1,3-Dichloropropenes	50	N.D.
Carbon Tetrachloride	50	N.D.
Trichlorofluoromethane	250	N.D.
1,1,2-Trichloroethane	50	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Globules 34	9050993

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Benzene	50	N.D.
Toluene	50	1100
Ethylbenzene	50	N.D.
Chlorobenzene	50	N.D.
Xylenes (sum of 3 isomers)	50	N.D.
Acetone	250	N.D.
2-Butanone	250	N.D
Carbon Disulfide	100	N.D.
Vinyl Acetate	100	23000
4-Methyl-2-pentanone	100	N.D.
2-Hexanone	100	N.D.
Styrene	100	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	97 %
Toluene-d8	94 %
4-Bromofluorobenzene	101 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

ensco

WASTE MATERIAL DATA SHEET

No. 83807

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIORMENTAL SERVICES
MAILING ADDRESS: 17062 Murphy Ave
Irvine CA
XXXXXXXXXX
FACILITY ADDRESS: 5515 F
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8832 Dice Rd
Santa Fe Springs CA 90760
FACILITY ADDRESS
EPA I.D. NO. CAL 0000 21160

B WASTE IDENTIFICATION

WASTE NAME: Acrylic Resin Dessicant Contaminated
Is this waste normally generated at FACILITY? (Y) (N)
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? (Y) (N) Composition? (Y) (N) Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data concerning of waste and materials used in process.

HEALTH	2				
FLAMMABILITY	3				
REACTIVITY	0				

Attachments

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: Yellowish balls
ODOR: Solvent
☐ NONE ☐ STRONG ☒ MILD
☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.0				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:
ATTACHMENTS

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify:
ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D001
D004
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: Hazardous Waste Solid NOS
HAZARD CLASS: ORM-E ID # NA 9189 R/Q D001
ANTICIPATED VOLUME ____ GAL. ____ YDS. 5000 LBS. PER:
☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____, in bulk? X by rail?
Specify type and size of container: 17H - 55gal Drums

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☒ 1.4-1.7
☐ 0.8-1.0 ☐ >1.7
☐ 1.0-1.2 ____ Actual
☐ 1.2-1.4

2 VISCOSITY (centipoise)
☐ 1-100 ____ Actual
☐ 100-1,000
☐ 1,000-19,000
☒ > 10,000

3 ASH (%WT.)
☐ <0.1
☐ 0.1-1.0
☐ 1-5
☐ 5-20 unk Actual
☐ >20

4 TOTAL SUSPENDED SOLIDS (% WT.)
☐ <0.5 ☒ >20
☐ 0.5-2.0 ____ Actual
☐ 2-5
☐ 5-20

5 pH
☐ <2 ☐ >12.5
☐ 2-6 ____ Actual
☐ 6-8
☒ 8-10 ____ Constituent
☐ 10-12.5

6 BTU's 1000/lbs.
☐ <1 ☐ 12-16
☐ 1-4 ☐ >16
☐ 4-8 unk Actual
☐ 8-12

7 FLASH POINT (closed cup)
☐ <100°F ☐ >200°F
☐ 100°-140°F Ignite Actual
☒ 140°-200°F

8 SULFUR (% WT.)
☐ <0.5 ☐ >5
☐ 0.5-2.0 unk Actual
☐ 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
☒ BROMINE	☐	☐	☐	☐	☐
☒ CHLORINE	☒	☐	☐	☐	☐ 300 ug/l
☒ FLUORINE	☐	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		ND	P		ND	PCB	ND	
As		8.1	Se			Sb			CYANIDES		
Ba		ND	Cu			Si			SULFIDES		
Cd			K		240	organic silicon only			DIOXIN		
Cr			Na		ND	Sn		ND	OTHERS (SPECIFY)		
Hg			Mn			Zn		6.0			

ATTACHMENTS

I

Does waste contain SOLVENTS? If yes, specify Trichloroethane 300 ug/Kg
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE ____ TITLE ____ DATE ____

ENSCO USE ONLY
PC
DATE RECEIVED

DICE 02375

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

36

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Fouchot

Project: Liquid Air Corporation

Sample Description
#36

Sample Number
9050995

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	8.1
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	N.D.
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	6.0
Calcium	(7140)	NA	NA	1.0	50
Sodium	(7770)	NA	NA	1.0	240
Magnesium	(7450)	NA	NA	1.0	N.D.
Potassium	(7610)	NA	NA	1.0	N.D.

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS CONTROL PROGRAM
PROPOSITION 65 LOGGING AND PROCESSING FORM

Log # 01902

Received By: SHEAR [] Telephone X Mail

DATE & TIME RECEIVED HMCP: 04/06/88 :

DATE & TIME INCIDENT OCCURRED: / / :

DATE & TIME REPORTER OBTAINED INFORMATION: / / :

REPORTED BY: Agency: Santa Fe Springs Fire Department

D.G.E.: John Hunter Phone: 213-944-9713

NAME/DBA: Liquid Air Corporation

LOCATION OF DISCHARGE: 8832 Dice Road

CITY: Santa Fe Springs ZIP CODE: 90670

SUBSTANCE INVOLVED: Waste paint and solvents QUANTITY:

NARRATIVE ON INCIDENT: In years past, company employees dumped waste paint and solvents to the ground; surrounding and within the ground pit area. Contamination soil located in northwest area of northernmost pit. Contamination noticeable by green coloration.

ASSESSMENT OF IMPACT ON PUBLIC HEALTH AND SAFETY: {Unable to determine at this time.}

Number of Reported Illnesses 0 Number Receiving Medical Treatment 0

DGE KNOWS THE DISCHARGE WILL AFFECT THE PUBLIC HEALTH AND SAFETY: [] Yes [] No

DISPOSITION:	Agency*		Date
[] Proposition 65 Reportable		DGE Notification Sent	/ /
[] Request For Additional Information		Response Letter	/ /
X Determination of Non-Reportability	SFPFD	Response Letter	04/07/88
[] Disposition of Submitted Reports		Response Letter	/ /
[] Referral to Agency of Regulatory Authority		Response Letter	/ /
[] Investigation by HMCP	Assign To		/ /

STATUS: {Unknown.}

DICE 02377

1902

APR 6 1988

HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION FORM

FILE COPY HAZARDOUS MATERIALS CONTROL PROGRAM

Santa Fe Springs Fire Department
11300 Greenstone Ave.
Santa Fe Springs, CA 90670
(213) 944-9713

☐ Your assisstance is requested
☒ Health Dept. has been notified by phone
☒ For your information

cc: Health Department
cc: Board of Supervisiors

Complainant

Reported by: Dave Klunk Title Environmental Protection Inspector
Firm Name: Santa Fe Springs Fire Dept.
Address: 11300 Greenstone Avenue, Santa Fe Springs, CA 90670
Telephone: (213) 944-9713

Site Information

Date of Incident
Incident Location (name, if applicable) Liquid Air Corp.
(address or cross streets) 8832 Dice Road, Santa Fe Springs, CA 90670

Site Contact: Joe Weber/Tom Barber Title: Plant Manager Telephone: (213) 945-1383
Landowner, if known:
if unknown, circle one ---> private property public property
Surrounding land use (circle one) ---> open area residential area commercial area industrial area

Comments: Contaminated soil located in northwest area of northernmost pit. Contamination noticeable by green coloration.

Description/Cause of Incident: In years past, company employees dumped waste paint and solvents to the ground; surrounding and within the ground pit area.

Material(s) Involved	Physical State	Volume	Additional Information
Waste paint and solvents	semi solid and solid	ground area 12'x25'	No "free product" on ground surface

Responsible Party, if known: name Liquid Air Corp. telephone
address

Discharge Information

Environment Affected: (circle appropriate items)

Roadway Sewer Storm Drain/Channel Soil Air Other

Extent of comtamination Depth of contamination unknown. Surface contamination covers an area approximately 12' x 25'.

Number of persons reportedly injured: N/A

Medical Treatment Received: ____ yes N/A no

Additional Information: Approximately 50 55-gallon drums containing mostly waste oil, solvents, paints and acids stored in leaky, unlabeled drums for greater than 90 days. Company is working with I.T. Corp. on hazardous waste removal. Company failed to notify appropriate agencies of ground contamination.

HAZ. MAT. CONTROL PROGRAM
PROPOSITION 65 REFERRAL
CONFIRMED REFER TO D.G.E.
ADDITIONAL INFORMATION NEEDED
NON REPORTABLE DOES NOT MEET CRITERIA
CLARIFICATION NEEDED
REFERRED TO AGENCY OF AUTHORITY

#4

DICE 02378

COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012

Reply refer to:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-3223

April 7, 1988

Robert Wilson, Fire Chief
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670

Dear Mr. Wilson:

DETERMINATION OF NONREPORTABILITY
PROPOSITION 65 DISCLOSURE REPORT -- HMCP LOG # 01902

The Los Angeles County Department of Health Services Hazardous Materials Control Program has been designated to receive and review all reports submitted by designated government employees (DGE's) to determine if they meet the prerequisite disclosure provisions of the California Health and Safety Code, Section 25180.7 (b) (Proposition 65, Section 4). The statute requires disclosure when the designated government employee knows that an illegal discharge or threatened illegal discharge of hazardous waste is likely to cause substantial injury to the public health or safety. The statute also dictates that disclosure is not required under special provisions of the law.

Our program has received a disclosure report from your agency regarding an illegal discharge or threatened illegal discharge of hazardous waste (see attached report). We have reviewed the report and, in our opinion, it does not meet the required provisions for disclosure for the following reasons:

[] The discharge is already public knowledge within the location affected.
[] The discharge is subject to ongoing criminal investigation which could be adversely affected by public disclosure.
[] The discharge was made in compliance with or under permit or approval of an appropriate regulatory agency.
[X] Based on the information provided, the discharge is not likely to cause substantial injury to the public health or safety because of the location of the discharge, the identification of the material, the quantity of the material identified, and/or satisfactory mitigation of the discharge.
[] Disclosure for the discharge has been previously made.
[] The discharge occurred prior to January 1, 1987, when the provisions of the law requiring disclosure reporting became effective.
[] The report does not contain sufficient information to enable further investigation by our Department or any other agency which may have responsibility for the investigation.

A copy of your report is attached, the original report will be maintained in this office for future reference. If you have any questions please contact the Hazardous Materials Control Program Proposition 65 Coordinator at (213) 744-3223.

Bonnie Shear for

Anastacio G. Medina, Chief
Hazardous Materials Control Program

Attachment

HAZARDOUS MATERIALS CONTROL PROGRAM

TELEPHONE REQUEST

Log # (yrnnnn) 904360 Date [ ]Emergency Response [ ]Illgl Storage

Received: By BENJAMIN 12/19/90 [ ]Illgl Disp Onsite [ ]Clean Up

Log Entry: By BENJAMIN 12/19/90 [ ]Illgl Disp Offsite [ ]P. H. L.

Name: LIQUID AIR BURDETTE OXYGEN Phone:

Address: 8832 DICE ROAD City: SFS

Substance: UNKNOWN "SLUDGE" SUBSTANCE Zip:

Scope: DIGGING SLUDGE SUBSTANCE FROM PIT AND DUMPING IT IN ANOTHER. ON-GOING AT TIME OF CALL

Status: SOURCE OF INFORMATION IS SFS ENVIRONMENTAL DIRECTOR : LEIGH DE SANTIS 213-868-0511 ext 288

Section Assign To: [ ]SGV [ ]SFV [ ]SE [ ]SB [ ]C [ ]M [ ]ER [ ]OH [ ]ENF [ ]SM Date: / /

Inspector Assign To: Assign By Date: / /

Service Requested By Address 1405 N. SAN FERNANDO BL Phone

MEMO HERNANDEZ STATE HEALTH DEPT BURBANK CA 818-567-3024

12-19-90 - Approx 4:00 pm Received COMPLAINT FROM MARIO BENJAMIN - Hand deliver - Concern About the Need for inspection ASAP.

12-19-90 - 4:45 pm - telephone discussion c̄ Leigh De Santis for purpose of receiving more INFO. - STATED Fire Dept. and ENVIROMENTAL (Her dept) OUT AT THE site. Sample taken 12-18-90 - of discharge to ground + pit. She said there no immediate urgency - site been operation for years. She feels that everything is being take care of at this time, what to know if we had any INFO - to get back c̄ her tommorrow or friday. Mean time will await lab result. - Most likely to make an inspection the 1st of the year.

12-21-90 - T.C. c̄ Leigh De Santis - told her could not find any in our file under "liquid air" - she forgot to mention previous name Burdette Oxygen - told her we would wait for lab results that the City had taken their plan to make a thorough inspection of facility probably at 1st of year.

HMCP (1/89)

DICE 02381

Calcium Carbonate Pit

Acetylene
Medical gases 12.5
sample 12-18-90
LAB - sample submitted 12-19-90

HAZARDOUS MATERIALS CONTROL PROGRAM

TELEPHONE REQUEST

Log # (yrnnnn) 904355 Date [ ]Emergency Response [ ]Illgl Storage

Received: By GPM 12/19/90 [ ]Illgl Disp Onsite [ ]Clean Up

Log Entry: By GPM 12/19/90 [✓]Illgl Disp Offsite [ ]P. H. L.

Name: LIQUID AIR Phone: (213) 945-1383

Address: 8832 DICE RD City: SANTA FE SPRINGS

Substance: WASTE CHEMICALS Zip: 90670

Scope: WASTE WATER WITH CHEMICALS IS BEING DUMPED INTO A POND IN THE REAR OF PROPERTY. (ALL RR TRACKS

Status: STEVE (OPERATION SMGR)

Section Assign To: [ ]SGV [ ]SFV [ ]SE [ ]SB [ ]C [ ]M [ ]ER [ ]OH [✓]ENF [ ]SM Date: 12/19/90

Inspector Assign To: _____ Assign By _____ Date: / /

Service Requested By Address Phone

STEVE KOESPER FIRE (SFS) (213) 944-9713

PLEASE CALL WITH RESULTS. ✓

12-20-90 - T.C. Steve Koesper - advise our plan of action see Montecino complaint # 904360. for details

HMCP (1/89)

DICE 02383

K

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
1235 Mission Street
San Francisco, CA 94103

RECEIVED
MAY 21 1990
SAFETY DEPARTMENT

IN REPLY
REFER TO: H-8-1
EPA ID #: CAD003312600
or: CAD982359747

David N. Simon,
Manager Regulatory Affairs
Liquid Air Corporation
P.O. Box 8038
Walnut Creek, CA. 94596

Dear Mr. Simon:

Enclosed please find the Screening Site Investigation Report prepared by our contractor, Ecology and Environment, after their CERCLA inspection at the Liquid Air Corporation, also known as Burdett Oxygen Company, facility located in Walnut Creek, CA.

EPA encourages your written comments on this report. They should note the EPA ID number given above and they should be sent to Carolyn Douglas, EPA mail stop H-8-1. If you have any questions please contact Carolyn at (415) 744-1914.

Sincerely,

Thomas A. Mix
Chief
Site Evaluation Section

Enclosure

K.

ecology and environment, inc.
717 W. TEMPLE ST., LOS ANGELES, CA 90012, TEL. 213-481-3870
International Specialists in the Environment

SCREENING SITE INSPECTION
SUMMARY REPORT

SUBMITTED TO:	Carolyn Douglas, Site Assessment Manager EPA Region IX
PREPARED BY:	Christopher R. Harner, Ecology and Environment, Inc. CRH
THROUGH:	Christine Houston, Ecology and Environment, Inc. CJ for CH
DATE:	March 9, 1990
SITE:	Liquid Air Corporation AKA Burdett Oxygen Company 8832-8838 Dice Road Santa Fe Springs, California 90607 Los Angeles County
TDD#:	F9-8909-047
EPA ID#:	CAD003312600 (Liquid Air) CAD982359747 (Burdett Oxygen)
PROGRAM ACCOUNT#:	FCA1295SAA

FIT REVIEW/CONCURRENCE: James M. James 3/9/90

cc: FIT Master File
Don Plain, California Department of Health Services

INTRODUCTION:

Pursuant to Technical Directive Document number F9-8909-047, Ecology and Environment, Inc.'s Field Investigation Team (FIT) conducted a Screening Site Inspection (SSI) of Liquid Air Corporation in Santa Fe Springs, Los Angeles County, California. During the investigation, FIT discovered that Liquid Air Corporation is the same facility as Burdett Oxygen Company, for which California Department of Health Services (DOHS) had completed an SSI in June 1989 (1) (see Appendix, CERCLA Site Inspection, California Department of Health Services). Both the state SSI and

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recycled paper

subsequent Site Inspection Report Review, completed by FIT in August 1989, used the Hazard Ranking System (HRS) to evaluate the site's potential to qualify for inclusion on the National Priorities List (NPL) (1, 9). This SSI Summary Report evaluates the site's potential to qualify for the NPL using factors outlined in the proposed revised Hazard Ranking System (rHRS).

The EPA ID numbers associated with the investigations of this site are:

EPA ID NUMBER	SITE NAME	REPORT TYPE/AGENCY	REPORT DATE
CAD003312600	Liquid Air	PA/DOHS	May 1986
		PA Report Review/EPA	May 22, 1987
		PA Reassessment/EPA	July 26, 1988
CAD982359747	Burdett Oxygen	PA/DOHS	March, 1988
		SSI/DOHS	August 2, 1989
		SSI Report Review/EPA	September 1989

As listed in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), Liquid Air is located at 8832 Dice Road, and Burdett Oxygen is located at 8838 South Dice road. This is incorrect since both addresses constitute a single site.

Liquid Air Corporation, with headquarters at 2121 North California Boulevard, Walnut Creek, Contra Costa County, California, owns and operates Burdett Oxygen Company of California. Burdett Oxygen company is located at 8832-8838 Dice Road, Santa Fe Springs, Los Angeles County, California, (Township 2 South, Range 11 West, San Bernardino Base and Meridian). The site has operated since 1949 under several names and owners (1). Previous names associated with the site include American Cryogenics, MG Burnett Gas Products, Cal Oxygen Company and the Burnett Oxygen Company (1).

Activities at this facility include the production of acetylene gas and the repackaging of gas bottles with hydrogen, helium, oxygen, argon, nitrous oxide, carbon dioxide, propane and fuel gas. An on-site air separation plant operates under the name "Alpha Gas" (1).

In 1986, the Los Angeles County Department of Public Works, Waste Management Division, issued a letter of noncompliance to Burdett Oxygen Company for a leak in the 6200-gallon underground acetone tank (3). While the acetone leak was not fully addressed in the DOHS Burdett Oxygen Company SSI, further inquiry by FIT revealed that the acetone tank has been removed under the direction of the Los Angeles County Department of Public Works, Waste Management Division (3, 4).

A 1000-gallon underground waste oil storage tank was also removed at the same time as the acetone tank. The origin of the waste oil stored in this tank is unclear, although it was clear that the underground waste oil tank had not been used for some time (4). Testing conducted after the removal of the tank failed to detect hydrocarbon contamination (10).

HRS INFORMATION

Approximately 1104 tons (dry weight) of liquid acetylene by-product is pumped into two 500,000 cubic foot unlined lime slurry pits on site annually. Once dry, the slaked lime is milled on-site and hauled away in large trucks as product (1). The liquid lime slurry, as deposited in the slurry pits, consists of calcium hydroxide (lime) with trace quantities of heavy metals (pH = 11.9). The analytical results of the sampling of these pits are contained in the Appendix of this report. Since no background samples where collected as part of the sampling, it is not known whether the concentrations of heavy metals in the slurry pits (ranging between 0.09 mg/kg to 17 mg/kg) represent levels substantially above local background levels (1). The heavy metal concentrations in the slurry pits are not substantially above mean background levels presented in a report of the Western United States by the U.S. Geological Survey (5). Other than the high pH of the lime slurry due to the calcium hydroxide, there appear to be no hazardous substances associated with the pits.

In addition to the acetylene waste process by-product in the slurry pits, approximately 55 gallons of spent sulfuric acid, 55 gallons of trichloroethylene (TCE), and 200 to 400 gallons of spent motor oil are produced annually on site. Theses wastes are stored temporarily before they are hauled away by ENSCO Environmental Services of Irvine, California (1). Liquid Air Corporation is not listed in the current RCRA database.

Analyses conducted by Liquid Air Corporation prior to removal of the 6200-gallon underground acetone storage tank found low levels of acetone in the soil immediately surrounding the tank. Soil samples contained up to 6.8 ppb of acetone (with a detection limit of 2 ppb.) No further investigation of the area was required by the Los Angeles County Department of Public Works (3, 6).

There have been no documented releases of hazardous substances to the air, nor does there appear to be potential for a release (1). The spent sulfuric acid, TCE, and spent motor oil are all stored in intact and sealed 55-gallon drums and kept in a paved and enclosed area prior to removal from the facility (1). Although both lime slurry pits are uncovered and exposed to the atmosphere throughout the sludge-drying process, it does not appear that hazardous substances are contained within the pits (1). The area surrounding Liquid Air Corporation in Santa Fe Springs is highly industrialized and sparsely populated.

There have been no documented releases of hazardous substances to surface water. Drainage from the facility flows to the Sorenson Avenue storm drain which connects to North Fork Coyote Creek 3 miles southeast of the facility. Coyote Creek is tributary to the San Gabriel River, which empties into the Pacific Ocean approximately 15 miles from the site. The San Gabriel River is located about 1 mile west of the facility. Although there may be potential for a release of hazardous substances to surface water, none of these surface water bodies are used for drinking water, recreation, or irrigation within 4 miles of the Liquid Air site (1, 11).

There have been no documented releases of hazardous substances to groundwater. The depth to groundwater in the Gardena aquifer below the site is approximately 70 feet below the ground surface (4, 11). While the Gardena aquifer is not utilized for municipal supply, it may be hydrologically connected with deeper aquifers within 2 miles of the site which do provide municipal water (12). The nearest well used for drinking water is 0.22 miles from the site (7, 11). The population served by municipal wells drawing groundwater from deeper aquifers within 4 miles of the site exceeds 50,000 people (7, 11, 13, 14, 15). There appears to be low potential for an observed release of hazardous substances to groundwater due to the depth to groundwater, low permeability of the unsaturated zone and low net annual precipitation.

There appears to be low potential for on-site exposure to hazardous substances to populations near Liquid Air Corporation in Santa Fe Springs. The surface extent of the lime slurry pits is approximately 20,000 square feet. The surrounding area is highly industrialized and sparsely populated. No sensitive environments are identified within 4 miles of the Liquid Air facility (1). The facility is completely fenced, and a security guard is posted at the entry gate (1).

CONCLUSIONS

Liquid Air Corporation (EPA ID# CAD003312600) and Burdett Oxygen Company (EPA ID# CAD982359747), occupy the same physical location at 8832-8838 Dice Road, in Santa Fe Springs, Los Angeles County, California. The Liquid Air Corporation name should be retained to identify this site because Liquid Air Corporation is the parent company of all operating facilities on the site (Burdett Oxygen Company and Alpha Gas).

The Site Inspection Report Review of the Burdett Oxygen Company concluded that the site appeared to be eligible for inclusion on the National Priorities List based on a preliminary Hazard Ranking System screening estimate (9). However, a proposed revised Hazard Ranking System screening estimate does not support the site's eligibility for inclusion on the National Priorities List based on the following factors:

- No documented observed releases of hazardous materials from the site have occurred to groundwater, surface water or air.
- Sulfuric acid, trichloroethylene and waste oils are stored in sealed drums in an enclosed, paved area prior to being hauled off site by a licensed contractor.
- The area surrounding the site is highly industrialized and sparsely populated.
- The leaking underground acetone storage tank has been removed.
- Surface water is not used for drinking or recreational purposes, and no sensitive environments exist within 4 miles of the site.

EPA RECOMMENDATION

	Initial	Date
Refer to Other Authority		
No Further Remedial Action Planned	cpd	3/23/90
Listing Site Inspection		
Medium-Priority SSI		
Low-Priority SSI		

Notes:

F438

Sample and Evidence Log

Investigative Section

Form #SE1
rev 2.0 • 8/92

Los Angeles County
Fire Department
Prevention Bureau

Hazardous Waste
Control Program

HAZ MAT

Name/DBA: LIQUID AIR CORP

Page 1 of 1

Address: 8832 DICE RD

Date: 1/27/93

City: SANTA FE SPRINGS Zip: 90670 Phone: (310) 945-1383

Start Time: 2330

Sampler: JIM MCCARRON Witness: MARTY KASMAN

Sample/Photo #	Time	Location	Description
Sample #: JMC012793-1 Photo #: A & B	2330	CREEKBED 8ft EAST OF DICE ROAD	MUD + WATER BACKGROUND SAMPLE FIELD pH 8
Sample #: JMC012793-2 Photo #: A & B	2350	STORM DRAIN INLET AT SOUTH EAST CORNER OF ACETYLENE PLANT	MUD + WATER FIELD pH 9
Sample #: JMC012793-3 Photo #: A & B	0015	CREEK BED Bottom SLUDGE AT OUTFALL PIPE	SLUDGE FIELD pH 12-13
Sample #: JMC012793-4 Photo #: A + B	0020	CREEKBED Bottom LIQUID 3ft INSIDE OF OUTFALL PIPE	LIQUID FIELD pH 12-13
Sample #: JMC012793-5 Photo #: A + B	0050	SUMP/SLURRY BASIN ON SOUTH SIDE OF ACETYLENE PLANT	LIQUID
Sample #: JMC012793-6 Photo #: A + B	0115	SOIL SAMPLE FROM Bottom OF LARGE Pit	SLUDGE
Sample #: Photo #:			
Sample #: Photo #:			
Sample #: Photo #:			

Split Samples Received By: "B" SAMPLES ISSUED Bryan Leger Bryan Leger Project Mgr. Date: 1/28/93

Health Officer: Marty Kasman

6A. 12.6

5A 12.3

4A 12.3

3A 12.3

2A 11.9

1A 7.44

JMC012793-1A THRU
JMC012793-6A

SAMPLE AND CHAIN OF CUSTODY RECORD

SAMPLE IDENTIFICATION LABORATORY JOB NUMBER: SJE 51476-51471

Sample Source or Company Name: LIQUID AIR CORP
Address: 2632 DICE RD. SANTA FE SPRINGS
Reason For Sampling: ☐ STRIKE FORCE ☐ OTHER:
Monitoring Requested By: MARTY KASMAN AUTHORIZED BY: RICHARD GILLASPY PHONE:

SAMPLE COLLECTION INFORMATION

Sampled By: JIM MCCARRON Submitted To Laboratory By: Bruce
Total Quantity of Sample Collected: 6 Total Quantity of Composite Prepared: Total Quantity Submitted To Lab: 6
Sample Preservation Used: Sample Split With Company?: (Y) N Name: BRYAN LEGER
Flow When Sampled:

Sample Taken From:
- ☐ Sample Box
- ☐ Clarifier
- ☐ Cleanout
- ☒ Other:

Sample Method:
- ☒ Grab
- ☐ Composite-Timed With ____ minute intervals.
- ☐ Composite-Flow With ____ gallon intervals.

Sample Grab or Composite Times:
At/or From 2330 (Hr. Min.) ☐ A.M. ☒ P.M. 1-27 1993 (Month Day Year)
To 0115 (Hr. Min.) ☒ A.M. ☐ P.M. 1-28 1993 (Month Day year)

Condition of Clarifier, Sample Box, Other Observations:

FIELD TEST RESULTS

pH 12-14 Flammability Redox Cyanide
Odor Other Other
Sulfide Other Other
NOTES TO ANALYSTS:

LABORATORY INFORMATION

Location Code: Interagency IW 03000 Type: SFS
☐ TS14R03 LACHD ☐ TS14R06 LAC SHERIFF ☐ TS14R09-LA CITY ATTORNEY
☐ TS14R04 CA DOHS ☐ TS14R07 CHP ☐ TS14R10 LAC D.A.
☐ TS14R05 LA CITY ☒ TS14R08 LAC FIRE ☐ TS14095 LACSD
Logged-In By:

Report To: CARR

Accounting Charges:
BS

LABORATORY TESTS

Check Tests Requested

	CONSTITUENT	RESULTS	CODE
X	pH		101
	TOTAL CYANIDE, mg/l CN		206
	TOTAL ARSENIC, mg/l As		705
	TOTAL CADMIUM, mg/l Cd		708
	TOTAL CHROMIUM, mg/l Cr		709
	TOTAL COPPER, mg/l Cu		712
	TOTAL LEAD, mg/l Pb		714
	TOTAL MERCURY, mg/l Hg		717
	TOTAL NICKEL, mg/l Ni		718
	TOTAL SILVER, mg/l Ag		722
	TOTAL ZINC, mg/l Zn		724
	FLASH POINT °C		105
	TOTAL PHENOLS, mg/l C_6H_5OH		312
	OIL AND GREASE, mg/l		408

Other

	CONSTITUENT	RESULTS	CODE
X	FISH BIOASSAY (96 hr)		

CUSTODY RECORD

Relinquished by: (Signature)	Time/Date	Received by: (Signature)
Jim McCarron	0210 1-27-93	Marty Kasman
Marty Kasman	1370 1-28-93	Paul Bruen
Paul Bruen	1500 1-28-93	Steve H. Cau

AMENDED SAMPLE INFORMATION

Sample No: SJ51471 Sample Location: 3-IW03-000

Requestor: GILLASPY Completion Date: 02/03/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/28/93 01:15

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-1A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	7.44	PH	--

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-1A NOT JMC012793-6A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)

AMENDED SAMPLE INFORMATION

Sample No: SJ51470 Sample Location: 3-IW03-000

Requestor: GILLASPY Completion Date: 02/03/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/27/93 23:30

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-2A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	11.9	PH	--

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-2A NOT JMC012793-5A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)

AMENDED SAMPLE INFORMATION

Sample No: SJ51469 Sample Location: 3-IW03-000

Requestor: GILLASPY Completion Date: 02/03/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/27/93 23:30

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-3A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	12.3	PH	--

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-3A NOT JMC012793-4A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)

AMENDED SAMPLE INFORMATION

Sample No: SJ51468 Sample Location: 3-IW03-000

Requestor: GILLASPY Completion Date: 02/03/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/27/93 23:30

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-4A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	12.3	PH	--

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-4A NOT JMC012793-3A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)

AMENDED SAMPLE INFORMATION

Sample No: SJ51467 Sample Location: 3-IW03-000

Requestor: GILLASPY Completion Date: 02/03/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/27/93 23:30

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-5A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	12.3	PH	02

Footnotes: 02 - AVERAGE OF DUPS

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-5A NOT JMC012793-2A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)

AMENDED SAMPLE INFORMATION

Sample No: SJ51466 Sample Location: 3-IW03-000

Requestor: GILLASPY Amended Completion Date: 02/22/93

Charge No: TS14R08B963 Approved By: EG Sample Type: SFS

Grab Date and Time: 01/27/93 23:30

Sample Description:
LIQUID AIR CORP., 8832 DICE RD., SFS - JMC012793-6A

No.	Test	Description	Result	Unit of Measure	Footnote
1.	101	PH	12.4	PH	42

Footnotes: 42 - AMENDED TEST RESULT

Notes: SAMPLE HEADER AMENDED DUE TO INADVERTENT TRANSCRIPTION ERROR AT TIME OF LOG-IN. DESCRIPTION TO BE SAMPLE JMC012793-6A NOT JMC012793-1A. CONFIRMATION MADE WITH SAMPLE LABEL (HKS 2/10/93)
PH RETESTED BY TWO VERSIONS OF PROCEDURE 9045, NEW VALUE IS 12.4 (EG 2/22/93)

11012B Garfield

PRIORITY (explain)	L.A. COUNTY FIRE DEPT. HEALTH HAZARDOUS MATERIALS DIVISION 5825 RICKENBACKER ROAD COMMERCE, CA 90040	County of Los Angeles Department of Health Services Public Health Laboratories (213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 23 / 93	Time (hours)	1420	
Location of Sampling (name of company, disposal site, etc.)	Liquid Air					
Address (number, street, city, state, zip)	8832 Dice Rd, Santa Fe Spring					
Telephone	( )	Company Contact				
Field #	N12393-1	N12393-2				
Sample of						
Location of Sample	Flood control channel	Flood control channel				
Analyze for	pH, Ca^{++} $SO_4^{=}$ OH^-	pH, Ca^{++} $SO_4^{=}$ OH^-				

Remarks

N12393-1 - Taken inside Liquid Air - 5 ft from tank. 8832 Dice Rd.

PART II. LABORATORY SECTION

Lab #						
Findings						

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LA Co Haz. Mat)	01/25/93	[signature]	

HMCP • 8/89 • v 2.0

DICE 02399

PRIORITY	
(explain)	

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 23 / 93	Time (hours) 1420
Location of Sampling (name of company, disposal site, etc.)	Liquid Air			
Address (number, street, city, state, zip)	8832 Dice Rd, Santa Fe Spring			90670
Telephone	( )	Company Contact		

Field #	N12393-1	N12393-2				
Sample of	Liquid →					
Location of Sample	Flood control channel	Flood control channel				
Analyze for	pH, Ca^{++} $SO_4^{=}$ OH^-	pH, Ca^{++} $SO_4^{=}$ OH^-				

Remarks
N12393-1 - Taken inside Liquid Air - 5 ft from tank. 8832 Dice Rd,

PART II. LABORATORY SECTION

Lab #	HS.M43.93	HS.M44.93				
Findings						
pH	12.98	13.25	Thurt 3/11/93			
Alkalinity	3200mg/L	2230mg/L	Thurt			
Hydroxide	1160mg/L	1920mg/L	Thurt			
Carbonate	2040mg/L	306mg/L	Thurt			
Calcium	1419mg.L	858mg/L	L. Avrahi			
Sulfate	51.46mg/L	12.77mg/L	gc 3-11-93			

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LA Co Haz. Mat)	01/25/93	Evelyn Ellis	
			Chief: [signature]	

HMCP - 8/89 - v 2.0

DICE 02400

PRIORITY	
(explain)	

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 24 / 93
Time (hours)	0840		
Location of Sampling (name of company, disposal site, etc.)	Flood Control channel 1/4 Mile East of Santa Fe Spring Rd		
Address (number, street, city, state, zip)			
Telephone	~~(213) 890-4075~~	Company Contact	

Field #	N12493-3					
Sample of	Liquid					
Location of Sample	Flood Control channel					
Analyze for	pH, Ca^{++} $SO_4^{=}$, OH^-					
Remarks						

PART II. LABORATORY SECTION

Lab #	HS. 745. 93					
Findings						
pH	10.13					
Alkalinity	255mg/L					
Carbonate	163mg/L					
Bicarbonate	91.8mg/L					
Calcium	Not Detected	R. Arvali				
Sulfate	421.09mg/L	gc 3-11-93				

3/11/93

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LACo Haz. Mat)	1/25/93	[signature]	
			Chief: [signature]	

HMCP - 8/89 - v 2.0

DICE 02401

PRIORITY
(explain)

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 24 / 93
Time (hours)	0840		
Location of Sampling (name of company, disposal site, etc.)	Flood Control channel 1/4 Mile East of Santa Fe Spring Rd		
Address (number, street, city, state, zip)			
Telephone	~~(213) 890-4075~~	Company Contact	

Field #	N12493-3					
Sample of						
Location of Sample	Flood Control channel					
Analyze for	pH, Ca^{++} $SO_4^{=}$, OH^-					
Remarks						

PART II. LABORATORY SECTION

Lab #						
Findings						

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Recieved by: (Signature)	(Agency)
N. Omoruyi	(LACo Haz. Mat)	1/25/93	Evelyn Ellis	

IMCP - 8/89 - v 2.0

DICE 02402

PRIORITY (explain)	

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. OMORUYI		Date Sampled (month / day / year)	01 / 23 / 93	Time	1420 hours
Location of Sampling (name of company, disposal site, etc.)	Liquid Air					
Address (number, street, city, state, zip)	8832 Dice Rd, Santa Fe Spring					90670
Telephone	( )		Company Contact			
Field #	N12393-1	N12393-2				
Sample of	Liquid →					
Location of Sample	Flood control channel	Flood control channel				
Analyze for	pH, Ca^{++} $SO_4^{=}$ OH^-	pH, Ca^{++} $SO_4^{=}$ OH^-				

Remarks
N12393-1 - Taken inside Liquid Air - 5 ft from tank. 8832 Dice Rd.

PART II. LABORATORY SECTION

Lab #	HS.743.93	HS.744.93				
Findings		1.28.93				
pH	12.98	13.25	Thurt 3/11/93			
Alkalinity	3200mg/L	2230mg/L	Thurt 2/3/93			
Hydroxide	1160mg/L	1920mg/L	Thurt			
Carbonate	2040mg/L	306mg/L	Thurt			
Calcium	1419mg.L	858mg/L	L. Avalli			
Sulfate	51.46mg/L	12.77mg/L	gc 3-11-93			

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LA Co Haz. Mat)	01/25/93	[signature]	
			Chief: [signature]	

HMCP • 8/89 • v 2.0

DICE 02403

RITY

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 24 / 93
Time	0840 hours		
Location of Sampling (name of company, disposal site, etc)	Flood Control channel 1/4 Mile East of Santa Fe Spring Rd		
Address (number, street, city, state, zip)			
Telephone	~~(213) 890 4075~~	Company Contact	

Field #	N12493-3					
Sample of	Liquid					
Location of Sample	Flood Control channel					
Analyze for	pH, Ca^{++} $SO_4^{=}$, OH^-					
Remarks						

PART II. LABORATORY SECTION

Lab #	H5.745.93					
Findings						
pH	10.13					
Alkalinity	255mg/L					
Carbonate	163mg/L					
Bicarbonate	91.8mg/L					
Calcium	Not Detected	R. Arvati				
Sulfate	421.09mg/L	JC 3-11-93				

3/11/93

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Recieved by: (Signature)	(Agency)
	(LAC Haz. Mat)	1/25/93		
			Chief:	

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DICE 02404

PRIORITY	
(explain)	

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 23 / 93	Time (hours)	1420
Location of Sampling (name of company, disposal site, etc.)	Liquid Air				
Address (number, street, city, state, zip)	8832 Dice Rd, Santa Fe Spring				90670
Telephone	( )	Company Contact			

Field #	N12393-1	N12393-2				
Sample of	Liquid →					
Location of Sample	Flood control channel	Flood control channel				
Analyze for	pH, Ca^{++} $SO_4^{=}$ OH^-	pH, Ca^{++} $SO_4^{=}$ OH^-				

Remarks
N12393-1 - Taken inside Liquid Air - 5 ft from tank. 8832 Dice Rd.

PART II. LABORATORY SECTION

Lab #	HS 743 93	HS 744 93				
Findings						
pH	12.98	13.25	Thurt 3/4/93			
Alkalinity	3200mg/L	2230mg/L	Thurt			
Hydroxide	1160mg/L	1920mg/L	Thurt			
Carbonate	2040mg/L	306mg/L	Thurt			
Calcium	1419mg.L	858mg/L	L. Arvali			
Sulfate	51.46mg/L	12.77mg/L	gc 3-11-93			

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LA Co Haz. Mat)	01/25/93	[signature]	
			Chief: [signature]	

HMCP - 8/89 - v 2.0

DICE 02405

PRIORITY
(explain)

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omokuyi	Date Sampled (month / day / year)	01 / 24 / 93
Time	0840 hours		
Location of Sampling (name of company, disposal site, etc.)	Flood Control channel 1/4 Mile East of Santa Fe Spring Rd		
Address (number, street, city, state, zip)			
Telephone	~~(213) 890-4075~~	Company Contact	

Field #	N12493-3					
Sample of	Liquid					
Location of Sample	Flood Control channel					
Analyze for	pH, Ca^{++} $SO_4^{=}$, OH^-					
Remarks						

PART II. LABORATORY SECTION

Lab #	H5.745.93					
Findings						
pH	10.13					
Alkalinity	255mg/L	Thant 3/11/93				
Carbonate	163mg/L					
Bicarbonate	91.8mg/L					
Calcium	Not Detected	R. Arvahi				
Sulfate	421.09mg/L	JC 3-11-93				

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Recieved by: (Signature)	(Agency)
N. Omokuyi	(LACo Haz. Mat)	1/25/93	Evelyn Ellis	
			Chief: [illegible]	

HMCP - 8/89 - v 2.0

DICE 02406

E. Leon Spaugy
Agricultural Commissioner/
Director of Weights and Measures

COUNTY OF LOS ANGELES

Department of
Agricultural Commissioner
and Weights and Measures

3400 La Madera Avenue
El Monte, California 91732

Environmental Toxicology Laboratory
11012 Garfield Avenue, Building B
South Gate, California 90280

William A. Edwards
Chief Deputy

March 11, 1993

Lab ID #: HS-743-93

TO: County of Los Angeles
Fire Department
Hazardous Materials Division
5825 Rickenbacker Road
Commerce, CA 90040
ATTN: Bill Jones

Sampling Location: Liquid Air, 8832 Dice Road
Santa Fe Springs 90670
Field Number: N12393-1

RESULTS OF LABORATORY ANALYSES

Parameter	Results (mg/l)	Analyses Date	Analyst	
pH	12.98	1/28/93	T. Win	
Alkalinity	3,200	1/28/93	T. Win	
Hydroxide	1,160	1/28/93	T. Win	
Carbonate	2,040	1/28/93	T. Win	
Calcium	1,419	2/03/93	R. Arvahi	R. Arvahi
Sulfate	51.46	3/02/93	J. Cho	Jonathan Cho

Submitted by:

Wai Leung, Sr. Industrial Hygiene Chemist

Wilhelmina M. Solinap, Chief

APR 1993
RECEIVED
Hazardous Materials
Control Program

Pest Prevention . . . the Preferred Alternative to Pesticides

E. Leon Spaugy
Agricultural Commissioner/
Director of Weights and Measures

COUNTY OF LOS ANGELES

Department of
Agricultural Commissioner
and Weights and Measures

3400 La Madera Avenue
El Monte, California 91732

Environmental Toxicology Laboratory
11012 Garfield Avenue, Building B
South Gate, California 90280

William A. Edwards
Chief Deputy

March 11, 1993

Lab ID #: HS-744-93

TO: County of Los Angeles
Fire Department
Hazardous Materials Division
5825 Rickenbacker Road
Commerce, CA 90040
ATTN: Bill Jones

Sampling Location: Liquid Air, 8832 Dice Road
Santa Fe Springs 90670
Field Number: N12393-2

RESULTS OF LABORATORY ANALYSES

Parameter	Results (mg/l)	Analyses Date	Analyst	
pH	13.25	1/28/93	T. Win	
Alkalinity	2,230	1/28/93	T. Win	
Hydroxide	1,920	1/28/93	T. Win	
Carbonate	306	1/28/93	T. Win	
Calcium	858	2/03/93	R. Arvahi	R. Arvahi
Sulfate	12.77	3/02/93	J. Cho	Jonathan Cho

Submitted by:

Wai Leung, Sr. Industrial Hygiene Chemist

Wilhelmina M. Solinap, Chief

APR 1993
RECEIVED
Hazardous Materials
Control Program

Pest Prevention . . . the Preferred Alternative to Pesticides

E. Leon Spaugy
Agricultural Commissioner/
Director of Weights and Measures

COUNTY OF LOS ANGELES

Department of
Agricultural Commissioner
and Weights and Measures

3400 La Madera Avenue
El Monte, California 91732

Environmental Toxicology Laboratory
11012 Garfield Avenue, Building B
South Gate, California 90280

William A. Edwards
Chief Deputy

March 11, 1993

Lab ID #: HS-745-93

TO: County of Los Angeles
Fire Department
Hazardous Materials Division
5825 Rickenbacker Road
Commerce, CA 90040
ATTN: Bill Jones

Sampling Location: Liquid Air, 8832 Dice Road
Santa Fe Springs 90670

Field Number: N12393-3

RESULTS OF LABORATORY ANALYSES

Parameter	Results (mg/l)	Analyses Date	Analyst	
pH	10.13	1/28/93	T. Win	
Alkalinity	255	1/28/93	T. Win	
Carbonate	163	1/28/93	T. Win	
Bicarbonate	91.5	1/28/93	T. Win	
Calcium	ND	2/03/93	R. Arvahi	R. Arvahi
Sulfate	421.09	3/02/93	J. Cho	

ND: not detected

Submitted by:

Wai Leung, Sr. Industrial Hygiene Chemist

Wilhelmina M. Solinap, Chief

APR 1993
RECEIVED
Hazardous Materials
Control Program

Pest Prevention . . . the Preferred Alternative to Pesticides

PRIORITY
(explain)

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I. FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 24 / 93
Time	0840 (hours)		
Location of Sampling (name of company, disposal site, etc.)	Flood Control channel 1/4 Mile East of Santa Fe Spring Rd		
Address (number, street, city, state, zip)			
Telephone	~~(213) 890-4075~~	Company Contact	

Field #	N12493-3					
Sample of	Liquid					
Location of Sample	Flood Control channel					
Analyze for	pH, Ca^{++} $SO_4^{=}$, OH^-					
Remarks						

PART II. LABORATORY SECTION

Lab #	H5.745.93					
Findings						
pH	10.13					
Alkalinity	255mg/L					
Carbonate	163mg/L					
Bicarbonate	91.8mg/L					
Calcium	Not Detected	R. Arvalo				
Sulfate	421.09mg/L	3-11-93				

PART III. CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
N. Omoruyi	(LACo Haz. Mat)	1/25/93		
			Chief:	

HMCP - 8/89 - v 2.0

DICE 02410

PRIORITY	
(explain)	

L.A. COUNTY FIRE DEPT.
HEALTH HAZARDOUS
MATERIALS DIVISION
5825 RICKENBACKER ROAD
COMMERCE, CA 90040

County of Los Angeles
Department of Health Services

Public Health Laboratories
(213) 940-6778

HAZARDOUS WASTE SAMPLE ANALYSIS REQUEST

PART I - FIELD SECTION

Collector	N. Omoruyi	Date Sampled (month / day / year)	01 / 23 / 93	Time (hours)	1420
Location of Sampling (name of company, disposal site, etc.)	Liquid Air				
Address (number, street, city, state, zip)	8832 Dice Rd, Santa Fe Spring				
Telephone	( )	Company Contact			

Field #	N12393-1	N12393-2				
Sample of	Liquid	→				
Location of Sample	Flood control channel	Flood control channel				
Analyze for	pH, Ca^{++} $SO_4^{=}$ OH^-	pH, Ca^{++} $SO_4^{=}$ OH^-				

Remarks
N12393-1 - Taken inside Liquid Air - 5 ft from tank. 8832 Dice Rd.

PART II - LABORATORY SECTION

Lab #	HS.743.93	HS.744.93				
Findings						
pH	12.98	13.25	Thurt 3/11/93			
Alkalinity	3200mg/L	2230mg/L	Thurt			
Hydroxide	1160mg/L	1920mg/L	Thurt			
Carbonate	2040mg/L	306mg/L	Thurt			
Calcium	1419mg.L	858mg/L	R. Koraki			
Sulfate	51.46mg/L	12.77mg/L	gc 3-11-93			

PART III - CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Received by: (Signature)	(Agency)
[signature]	(LACo Haz-Mat)	01/25/93	[signature]	
			Chief: [signature]	

HMCP - 8/89 - v 2.0

DICE 02411

KUSH - COURT CASE

PRIORITY: (1) 2 3	County of Los Angeles Agricultural Commisioner/Weights and Measures **Environmental Toxicology Laboratory** 11012-B Garfield Ave South Gate CA 90280 (213) 940-6778 FAX (213) 940-6785	Analysis Requested By ☐ Consumer Protection ☐ CMVS ☒ HazMat ☐ Mountain and Rural ☐ Occupational Health ☐ Other
Sample Split RP Name: LIQUID AIR Signature: [signature] Date: 1-28-93		

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST

PART I • FIELD SECTION

Collector	PATRICK ODONNELL	Date Sampled (month / day / year)	01 / 28 / 93	Time (hours)	1855	
Location of Sampling (name of company, disposal site, etc.)	FROM EFFUENT PIPE IN DRAINAGE DITCH ON SOUTH SIDE NEAR RAILROAD TRACKS					
Address (number / street / city / state / zip)	8832 DICE RD Santa Fe SPRINGS					
Telephone ( )		Company Contact	MELVID BIRD (PLANT MANAGER)			
Field #	POD12793-1A					
Sample of	CLEAR-TURBID LIQUID					
Location of Sample	NEAR EXIT OF PIPE IN DRAINAGE DITCH					
Analyze for	P.H. INORGANICS					
Remarks	POSSIBLE Calcium Hydroxide, Calcium OXIDE Magnesium Hydroxide					

PART II • LABORATORY SECTION

Lab #	HS-1078-93					
Findings						
pH	10.96					
Alkalinity	234.6ppm					
Hydroxide	Not Detected					
Carbonate	122.4ppm			2-22-93		
Calcium	96.1mg/L			R. Arvali		
Magnesium	4.9mg/L					

PART III • CHAIN OF CUSTODY

Relinquished by: (Signature)	(Agency)	Date / Time	Recieved by: (Signature)	(Agency)
Patrick O'Donnell	LACF & FW HEALTH HAZ MAT PROGRAM	01-28-93 0940	Evelyn G. Ellis	LAB
			Chief: [signature]	

DHS •1/91 • v 1.0

DICE 02412

Plan Check No. ____

Santa Fe Springs
JURISDICTION

Region No. ____

I-File No. 225-1H

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

PLAN CHECK INSTRUCTION SHEET

8832 Dice Rd. (BUILDING ADDRESS) Santa Fe Springs (LOCALITY)

Liquid Air, Inc. (OWNER) 1 Embacadero Ctr., 12th Floor, S.F. CA 94111 (MAILING ADDRESS) (TELE. NO.)

Environmental Services Div.-ENV, Inc. (ARCHITECT OR ENGINEER) 716 W. 14th St. L.B. CA 90813 (TELE. NO.)

Att'n: Mr. Paul Yu Tel. 435-4868

(Please submit, complete, or correct the items encircled below.)

The clearance of plans and specifications does not permit the violation of any section of the Sanitary Sewer and Industrial Waste Ordinance, Plumbing Code, or other County Ordinance or State Law.

1. Complete and sign the County Sanitation Districts' Permit Application form, attached, for the additional sewer connection serving the cylinder filling dock.
2. Complete and sign the County Engineer Industrial Waste Permit Application form.
3. Complete and sign the City of _____ Industrial Waste Permit Application form.
4. Submit application fee of $ 15.00, payable to ~~Harvey T. Brandt~~ the County Engineer, for the above additional connection.
5. Furnish chemical analyses and other data required on the attached County Sanitation Districts' Critical Parameter Report Form.
6. Six copies of all corrected drawings and other data must be provided.
7. Place the name and address of the company having the wastewater discharge at the lower right-hand corner of the plans.
8. A plot plan drawn to scale showing adjacent streets and north arrow is required.
9. A site drainage plan is required.
   See item no. 27
10. Unroofed areas drained to the public sewer must be either roofed or provided with a rainwater diversion system.
11. Six copies of the industrial wastewater sewerage plan must be provided. Plans must show all sewers and associated facilities for the handling of industrial wastewater from point of origin to the connection with the public sewer.
12. Sanitary wastes from rest rooms, lavatories, drinking fountains, etc., must be separate from industrial process wastewater until all industrial wastewater pretreatment or flow measuring steps are completed.
13. All equipment or facilities generating wastewater flow must be identified on plans.

RETURN THIS SHEET WITH ALL ORIGINAL AND REVISED PLANS AND SPECIFICATIONS WHEN CORRECTIONS HAVE BEEN MADE

Checked by Stan Uemura 2/9/76 (DATE) Rechecked and Approved by _____ (DATE)

DICE 02413

14. Scaled drawings for all existing wastewater pretreatment facilities are required. See item 22, below.

15. A gravity separation interceptor of _____ gallon capacity with sampling box on downstream end must be provided.

16. An automatic full-time total flow measurement system with flow indication, totalization, and recording must be provided and shown on the drawings.

17. An automatic effluent pH control and recording system for ~~acid~~ high ph wastes must be provided. See item 28, below.

18. Provide a schematic mass balance flow diagram of the plant wastewater sources from water supply to wastewater discharge. Show water and wastewater flow rates, evaporation losses, losses to product, etc.

19. A description of liquid waste materials leaving the plant other than in the industrial wastewater discharged to the sewerage system must be provided, indicating types of materials and daily quantities.

20. One-pass cooling water is not permitted in the public sewer.

21. Show _____ facilities and associated piping.

22. ~~Other~~: Show existing interceptor located on south side of cylinder filling dock & provide dimensioned details.

23. Static water level on interceptor detail is shown incorrectly.

24. Show existing sludge pits & holding tanks, indicating sources of waste, constituents & method (containment) of treatment & final disposal. Also, show how waste material is prevented from entering adjacent property during rainy weather.

25. One pass uncontaminated water is not allowed to discharge to the public sewer. Show how ~~mxx~~ uncontaminated one pass water is to be eliminated.

26. Show existing sump located at north end of the caustic tower and submit dimensioned detail drawings. Also, explain the function of the sump and final disposal of contents.

27. On 1/28/76, evidence was found that contaminated waste may have entered the area drain, located west of the Acetylene plant, from the caustic tower area. To prevent accidental discharge, caustic tower area must be provided with spill containment facilities.

28. A ph control & recording system for neutralizing excessively high ph discharges may be required if calcium deposits are found in the sewer.

29. Recent inspection of the facilities disclosed an excessive amount of oil and sludge in the interceptor north of the Compressor room area. Additional pretreatment facilies must be provided to prevent unacceptable materials from entering the public sewer.

May be required to skim oil ahead of interceptor, at after cooler. Looks like pure oil dripping to interceptor

Please submit within 30 days from receipt of this instruction sheet.

30. Show all fuel lines from compressor room

Address all correspondence to:
HARVEY T. BRANDT,
County Engineer
108 W. Second St.
Los Angeles, CA 90012
Attn. Mr. C. G. Brisley, Jr.

FIRE DEPARTMENT OF THE
CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION • (213) 944-9713
11300 GREENSTONE AVE. • SANTA FE SPRINGS 90670-4619

September 7, 1988

Mr. Louis Espinoza
Alphagaz
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Espinoza:

The recent inspection of your facility revealed several areas of concern which require addressing.

In accordance with Article 80 of the Uniform Fire Code, detailed plans for storage and handling of hazardous materials must be submitted for approval. Also, the City of Santa Fe Springs has no record of plans being submitted for the downloading, mixing, and transferring of toxic and corrosive gases such as hydrogen chloride, sulfur dioxide, and ammonia.

As discussed at your facility, the release of a hazardous material requires proper notification to the Fire Department. This requirement is outlined in Article 80 of the Uniform Fire Code and Chapter 6.95 of the Health and Safety Code. To prevent enforcement actions in the future, please notify the Fire Department immediately of a hazardous material release.

In addition to submitting necessary plans and a letter outlining provisions you have made for controlling and mitigating unauthorized discharges, please submit current material safety data sheets for all toxic and extremely toxic gases. All requested information should be submitted by October 10, 1988.

The submission of plans for storage of hazardous materials in no way grants approval for downloading, mixing, or transferring of toxic or extremely toxic gases. If you have any questions, please feel free to contact Dave Klunk or Diana Jimenez of this office.

Sincerely,

Stanley D. Boettcher
Fire Marshal

SDB/dk/bb

Plan Review/[illegible]d Inspection/Special Activi[illegible] Application

CITY OF SANTA FE SPRINGS
FIRE DEPARTMENT
FIRE AND ENVIRONMENTAL PROTECTION BUREAU
11300 GREENSTONE, SANTA FE SPRINGS, CA 90670
(213) 944-9713

PROJECT ADDRESS 8832 Dice Rd
OWNER Liquid Air Corp. TELEPHONE 945-1383
ARCHITECT/ENGINEER Rober Construction LICENSE NO. 519477 A+B
ADDRESS P.O. Box 3149 Santa Fe Springs
CONTRACTOR TELEPHONE 944-0263
ADDRESS

Inspection Phone No.:

LICENSED CONTRACTOR DECLARATION
I hereby affirm that I am licensed under provisions of Charter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class License No.
Date Signature

OWNER BUILDER DECLARATION
I hereby certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to construction, and hereby authorize representatives of this city to enter upon the above mentioned property for inspection purposes.

Signature [signature] Date 8/16/88
City License

TYPE OF CONSTRUCTION
___New
___Add
___Alteration
___Repair
___Conversion
___Demolish
✓ Other

DESCRIPTION OF WORK
Removal of (4) Four Underground Tank

TYPE OF PERMIT
does not have L.A. co permit - must take core samples around acetone tank
Flost - said he will pull tanks in 30 days

PROJECT DESCRIPTION
Size No. of Units
Occupancy Construction Type

PLAN REVIEW AND FIELD INSPECTIONS

	FEE
☐ Fire Alarm Systems	
☐ Fire Extinguishing System	
Fire Sprinkler System	
☐ a. Up to 20,000 sq. ft. per floor	
☐ b. 20,001 to 50,000 sq. ft. per floor	
☐ c. 50,001 to 100,000 sq. ft. per floor	
☐ d. More than 100,000 sq. ft. per floor	
☐ Flammable/Combustible Liquid Room	
☐ Compressed Gas System	
☐ Flammable/Combustible Liquid Tank (U/G & A/G)	
☐ L.P.G. Tanks	
☐ Paint Spray Booths	
☐ Dip Tank	
☐ Dust Collection System	
☐ Standpipes (Wet/Dry)	
☐ On-site Fire Hydrant System	
New Construction Plan Review	
☐ a. Up to 20,000 sq. ft. per floor	
☐ b. 20,001 to 50,000 sq. ft. per floor	
☐ c. 50,001 to 100,000 sq. ft. per floor	
☐ d. More than 100,000 sq. ft. per floor	
☐ Drying Ovens	
☐ High-Piled Combustible Stock (Racks/Draft Curtains/Hose Racks)	
☐ Tents and Air Support Structure	

	FEE
☐ Flow Coating Equipment	
☐ Tenant Improvements (Structural)	
☐ Tenant Improvements (Auto. Sprinklers)	
☐ Abandoned Oil Well Venting	
☐ Gas Detection System	
☐ Sprinkler System (20 heads or less)	

SPECIAL ACTIVITIES AND EVENTS-- ONE TIME PERMITS

☐ Hydrant Flow Request	
U/G Tank Removal	
✓ a. First Tank	200
3 ✓ b. Each Additional Tank	~~100~~ 300
☐ Abandonment/Reabandonment of Oil Wells (Including Capping)	
☐ Monitoring Wells	
☐ Standby Fire Watch	
☐ Fire Department Equipment With Crew	
☐ Request Inspection	
☐ Risk Management Prevention Program (RMPP) 4 hour minimum	

Please make checks payable to the City of Santa Fe Springs

Total due: 500 —

FRED NIKITIN 8-16-88
Inspector Date

DICE 02417

Type of Inspection	Date	Inspector
FIRE ALARM SYSTEM		
Locations		
Installation		
Test		
Final		
AUTOMATIC SPRINKLER SYSTEM		
U/G Hydro		
U/G Flush		
O/H Hydro		
Final		
Flammable/Combustible Liquid Room		
Compressed Gas System Test		
L.P.G. Tank		
Paint Spray Booth/Electrostatic		
Dip Tank		
Dust Collection System		
Standpipes (Wet/Dry)		
ON SITE FIRE HYDRANT SYSTEM		
Location		
U/G Hydro/Flush		
New Construction Final		
Drying Ovens (Industrial Baking/Drying)		
Tent & Air Supported Structure		
Flow/ Powder Coating Equipment		
Tenant Improvement (Structure)		
Tenant Improvement (Automatic Sprinkler)		
ABANDONED OIL WELL VENTING		
Location/Piping		
Final		
Gas Detection System		
(AS) Systems (20 Heads or Less)		
High-Piled Combustible Stock (Racks/Draft Curtains/Hoseracks)		

Remarks:

Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

J36407

LNX J 36407

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification of Representative Sample form.

1. ☒ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

Drum

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code: _____
2. [redacted] Generator's Name: _____
3. [redacted] Name of Waste: _____
4. [redacted] Sample Hour/Date: _____
5. [redacted] Sampler's Signature: _____

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: ASTGHIK KHAJETOORIANS
7. Sampler's Title: CHEMIST
8. Sampler's Employer (if CWM, see D. below): ENSCO ENVIRONMENTAL SERVICES INC

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36328

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: LIQUID AIR CORPORATION
2. Generator USEPA ID: CALDDD021162
3. Facility Address: 8832 DICE RD
4. Generator State ID: _____
SANTA FE SPRINGS CA 90670
5. Zip Code: 90670
6. Technical Contact: TOM BARBER
7. Title: PLANT MANAGER
8. Phone: (213) 945 - 1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO ENVIRONMENTAL SERVICES INC
3. Phone: (714) 756 - 8666
4. Address: 17062-B MURPHY AVENUE
IRVINE, CA
5. Zip Code: 92714

C. 1. NAME OF WASTE Potassium hydroxide and sodium hydroxide mixture

2. PROCESS GENERATING WASTE Gas manufacturing company, industrial.

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
White	☒ No ☐ Yes If known, describe: _____	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other: _____	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.5 - 1.7	☐ Yes ☒ No Volume: _____ %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☐ 7-10 ☒ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ None ☐ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.	RANGE MIN. - MAX.	
WATER	0 - 2	%
Potassium hydroxide	0 - 50	%
Sodium hydroxide	0 - 30	%
non-hazardous impurities	0 - 18	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	_____ ppm
Cyanides	☒	☐ < 50 ppm	_____ ppm
Phenolics	☒	☐ < 50 ppm	_____ ppm
Sulfides	☒	☐ < 50 ppm	_____ ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☒ < 5	☐ < 500	_____
Barium	☒ < 100		_____
Cadmium	☒ < 1	☐ < 100	_____
Chromium	☒ < 5		_____
Lead	☒ < 5	☐ < 500	_____
Mercury	☒ < 0.2	☐ < 20	_____
Selenium	☒ < 1	☐ < 100	_____
Silver	☒ < 5		_____
Chromium-Hex	☒ < 5	☐ < 500	_____
Copper	☒ < 5		_____
Nickel	☒ < 5	☐ < 134	_____
Thallium	☒ < 5	☐ < 130	_____
Zinc	☒ < 5		_____
_____	☐ <		_____
_____	☐ <		_____
_____	☐ <		_____

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

LAX J 36328
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☒ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

	LESS THAN	or ACTUAL
Beryllium	☒ < 5000 ppm	_____ ppm
Potassium	☐ < 5000 ppm	_____ ppm
Sodium	☐ < 5000 ppm	_____ ppm
Total Bromine	☐ < 2 %	_____ %
Total Chlorine	☐ < 35 %	_____ %
Total Fluorine	☐ < 1 %	_____ %
Total Sulfur		_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°F
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 1000 lbs / year
3. Proper Shipping Name: Waste Corrosive Solid NOS
4. Hazard Class: Corrosive Material 5. I.D. #: UN 1759
6. Additional Description: (Potassium hydroxide and sodium hydroxide mixture
7. Method of Shipment: ☐ Bulk Liquid ☒ Bulk Solid ☐ Drum (Type/Size): 17 OH / 55 GAL Other: _____
8. CERCLA Reportable Quantity (RQ): D002 9. RQ Units (lb/kg): 100 lbs.
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): D002
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): 141

K. SPECIAL HANDLING INFORMATION _____

☐ Additional Page(s) Attach

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true a accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. [signature] Signature 2. PLANT MGR Title
3. J. F. BARBER Name (Type or Print) 4. 7-6-89 Date

Side 2 of 2
Form CWM-6000 © 1987 Chemical Waste Management, Ir

Need Signature

DICE 02421

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36328

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

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2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code: _____
2. [redacted] Generator's Name: _____
3. [redacted] Name of Waste: _____
4. [redacted] Sample Hour/Date: _____
5. [redacted] Sampler's Signature: _____

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: ASIK KHAJETOORIANS
7. Sampler's Title: CHEMIST
8. Sampler's Employer (if CWM, see D. below): ENSCO ENVIRONMENTAL SERVICES INC

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

Form CWM-51 © 1987 Chemical Waste Management, Inc.

#7

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#7	9060966

Analysis: Scan for Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	5600
Potassium	(7610)	1.0	9200
pH	(9040)	NA	11.1

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

GM RG

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012

FEB 7 - 1977

RECEIVED
FEB 8 1977
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

COUNTY ENGINEER
ACTN
FILE TO
FEB 8 11 13 AM '77
REPT
SJK JTR THA
CJF CWJ RTR

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. Bill Aldrich, Plant Manager

I-225-1H

RE: Waste Discharge Requirements (NPDES Permit No. CA0058335)

ADOPTED

Gentlemen:

Reference is made to our letter dated December 17, 1976, which transmitted a draft of tentative requirements for your disposal of cooling water and process wastes.

Pursuant to Division 7 of the Water Code of the State of California, this California Regional Water Quality Control Board, at a public hearing held on January 24, 1977, reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 77-3 (copy attached) relative to this waste discharge. This Order serves as a permit under the National Pollutant Discharge Elimination System, and expires January 10, 1982. Please note that you must file an application for a new permit at least 180 days in advance of that date.

Your attention is directed to the provision in the Monitoring and Reporting Program (copy attached) which requires you to submit a technical report to this Board no later than 30 days after receipt of this permit relative to the operation and maintenance of the waste disposal facility. You are also required to implement the monitoring program as stated in the Monitoring and Reporting Program within 60 days of the effective date of this Order. Your first monitoring report is due by January 15, 1978, for spray cooling water, and/or by the first Report Due date subsequent to commencement of discharge for acetylene production process wastes. Please reference all technical and monitoring reports to our Compliance File No. 6301.

Very truly yours,

Original signed by
Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: Environmental Protection Agency, Region IX,
Regional Administrator, ATTN: Permits Branch
United States Army Corps of Engineers
State Water Resources Control Board, Legal Div., H. Schueller
Department of Fish and Game, Region 5
Department of Health, Water Sanitation Section
Departmentof Water Resources
Los Angeles County Flood Control District
County of Los Angeles, Department of Health Services
NOAA, National Marine Fisheries Service
Los Angeles County Engineer, Project Planning and
Pollution Control Division
City of Santa Fe Springs

Enclosures

DICE 02424

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 77-3

NPDES NO. CA0058335

WASTE DISCHARGE REQUIREMENTS
FOR
LIQUID AIR INC.

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Liquid Air Inc., has filed a report of waste discharge and has applied for a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. Liquid Air Inc., operates an air separation and acetylene manufacturing facility at 8832 Dice Road, Santa Fe Springs, California, and discharges up to 170 cubic meters (45,000 gallons) per day of cooling water containing no additives through an unlined ditch adjacent to the premises to North Fork Coyote Creek which is tributary to San Gabriel River, a water of the United States, at Stearn Street, above the tidal prism. The cooling water is sprayed on the acetylene-filled cylinders while they are loaded on trucks.

   Liquid Air Inc., also proposes to discharge up to 18.9 cubic meters (5,000 gallons) per day of acetylene production process wastes to the same unlined ditch.

3. The following data for the process wastes as provided by the discharger, show concentrations of certain constituents exceeding the maximum allowable concentrations contained herein below:

Constituent	Concentration	
pH	12.2	pH units
Total dissolved solids	3,320	mg/l

4. Currently, the process wastes are hauled to a legal disposal site. Because of increasing hauling costs, the discharger proposes to treat and discharge the wastes to the ditch, if he can meet the Board's requirements. If not, the wastes will continue to be hauled.

5. The Board adopted a Water Quality Control Plan for Los Angeles River Basin on March 10, 1975. The Water Quality Control Plan contains water quality objectives for San Gabriel River and tributaries, including Coyote Creek. The requirements contained in this Order are necessary to assist in meeting these objectives.

12/16/76

DICE 02425

6. The beneficial uses of the receiving waters are: non-water contact recreation, limited warm freshwater and wildlife habitat, and (within the tidal prism) water contact recreation, industrial service supply, ocean commercial and sport fishing, preservation of rare and endangered species, marine habitat, and saline water habitat.

7. Effluent limitation standards established pursuant to Section 301 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

DICE 02426

3. The daily discharge rate shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34^{*}}{N} \sum_{I}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD)+ and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

4. The 30-day average discharge rate shall be the arithmetic average of all the values of daily discharge rate calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average rate limitation shall not be determined.

5. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.

6. The temperature of wastes discharged shall not exceed 37.8°C (100°F).

7. Wastes discharged shall not contain visible oil or grease, and shall not cause the appearance of grease, oil or oily slick, or foam in the receiving waters or on channel banks, walls, inverts or other structures.

8. Wastes discharged shall not cause the formation of sludge deposits.

9. Neither the disposal nor any handling of waste shall cause pollution or nuisance.

10. Wastes discharged shall not damage flood control structures or facilities.

11. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

12. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

---

* In metric units, constant is 86.4.

\+ In metric units, flow rate is in cubic meters per second.

3. The daily discharge rate shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34^{*}}{N} \sum_{1}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD)+ and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

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12. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

---

* In metric units, constant is 86.4.

\+ In metric units, flow rate is in cubic meters per second.

DICE 02428

13. Calcium carbide or any other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall or by the discharge of cooling water and carried off the property or discharged to surface waters.

B. Provisions

1. This Order includes the following items of the attached "Standard Provisions": 1, 2, 4, 5, 6, 7, 8, 9 and 11.

2. This Order includes the following items of the attached "Reporting Requirements": 1 and 5.

3. This Order includes the attached "General Monitoring and Reporting Provisions."

4. This Order expires on January 10, 1982, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

5. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

6. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall nntify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.

7. Any discharge of wastes at any point(s) other than specifically described in this permit is prohibited and constitutes a violation of the permit.

I, Raymond M. Hertel, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 24, 1977.

Raymond M. Hertel

RAYMOND M. HERTEL, Executive Officer

DICE 02429

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

STANDARD PROVISIONS

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

3. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic and pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Water Pollution Control Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Water Pollution Control Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.

4. The discharger shall permit the Regional Board:

   (a) Entry upon premises in which an effluent source is located or in which any required records are kept;

   (b) Access to copy any records required to be kept under terms and conditions of this Order;

   (c) Inspection of monitoring equipment or records, and

   (d) Sampling of any discharge.

5. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.

6. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

7. Collected screening, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a regional water quality control board and which is in full compliance therewith.

DICE 02430

8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

   (a) Violation of any term or condition contained in this Order;

   (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

   (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

9. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standards or prohibition) is established under Section 307(a) of the Federal Water Pollution Control Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.

10. There shall be no discharge of harmful quantities of oil or hazardous substances, as specified by regulation adopted pursuant to Section 311 of the Federal Water Pollution Control Act, or amendments thereto.

11. In the event the discharger is unable to comply with any of the conditions of this Order due to:

    (a) breakdown of waste treatment equipment;

    (b) accidents caused by human error or negligence; or

    (c) other causes such as acts of nature,

    the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

12. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resources Control Board.

DICE 02431

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

REPORTING REQUIREMENTS

1. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.

2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

   Average daily flow for the month, the date on which the instantantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

   The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

   The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b), and 13268, California Water Code).

3. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

4. The discharger shall notify the Board of (a) new introduction into such works of pollutants from a source which would be a new source as defined in Section 306 of the Federal Water Pollution Control Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States, (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Water Pollution Control Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted. Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

DICE 02432

5. The discharger shall file with the Board a report on waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

6. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

   Evalulate the effectiveness of present facilities and procedures and state when they became operational.

   Describe facilities and procedures needed for effective preventive and contingency plans.

   Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational. (Reference: Sections 13267(b) and 13268, California Water Code.

   This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.

8. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

DICE 02433

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

GENERAL MONITORING AND REPORTING PROVISIONS

GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health. In the event a certified laboratory is not available, analyses performed by a noncertified laboratory will be accepted until May 15, 1977, provided that the laboratory has applied for certification.

Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

GENERAL PROVISIONS FOR REPORTING

For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

DICE 02434

In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

Monitoring reports shall be signed by:

a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

b. In the case of a partnership, by a general partner;

c. In the case of a sole proprietorship, by the proprietor;

d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____ at _____.

_____(Signature)

_____(Title)"

The discharger shall mail a copy of each monitoring report to the following:

California Regional Water Quality
Control Board - Los Angeles Region
107 South Broadway, Room 4027
Los Angeles, CA 90012

ATTN: Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. 6301
FOR
LIQUID AIR INC.
(CA0058335)

A. For Spray Cooling Water

The discharger shall implement this monitoring program within 30 days of the effective date of this Order. The first monitoring report under this program is due by January 15, 1978.

Monitoring reports shall be submitted annually and must be received by the Board by January 15 of the following year.

The report shall contain the following declarations:

1. There was no change in the general character of the discharge during the year.

2. The discharge was (or was not) in compliance with the discharge requirements during the year. If the discharge was not in compliance, the report shall recap the actions taken to bring the discharge back into compliance.

3. No additives were added to the discharge during the year.

4. The average quantity of discharge, in gallons per day, per discharge day.

If at any time during the year the discharge is not in compliance with discharge requirements, a technical report must be submitted to the Board within 15 days detailing the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

B. For Acetylene Production Process Wastes

The discharger shall implement this monitoring program at the commencement of discharge. The first monitoring report under this program is due by the first Report Due date subsequent to commencement of discharge.

The discharger shall notify the Board in writing of the proposed commencement of the discharge of process wastes two weeks prior to the commencement.

Monitoring reports shall be submitted by the dates in the following schedule:

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

If no flow occurred during the quarter the report shall so state.

DICE 02436

Effluent Monitoring

A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. The following shall constitute the effluent monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
pH	pH units	grab	monthly
Temperature	^{o}F or ^{o}C	grab	annually
Total waste flow	gal/day	----	monthly
Suspended solids	mg/l	grab	monthly
Settleable solids	ml/l	grab	monthly
Total dissolved solids	mg/l	grab	weekly

The October - December quarterly report shall include the results of the annual analysis.

For parameters where both 30-day average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply. Initially, beginning not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once that compliance has been demonstrated, sampling and analyses shall revert to the frequency specified in the table above. However, if future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

C. Operation and Maintenance Report

The discharger shall file a technical report with this Board not later than 30 days after receipt of this permit, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall include, as a minimum, the following:

a. The name and address of the person or company responsible for operation and maintenance of the facility.
b. Type of maintenance (preventive or corrective).
c. Frequency of maintenance, if preventive.

Ordered by Raymond M. Hertel
Executive Officer

JAN 24 1977
Date

DICE 02437

REGION FILE

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

INDUSTRIAL WASTE SURVEY

City Santa Fe Springs I-File No. 225-1H

SMD No. 0515.00 Permit No. 4061 & 4784

FIRM NAME Liquid Air, Inc.

Address 8832 S. Dice Road Telephone No. 685-4960

between Burke St. and Los Nietos Road

Contact Name Bill Aldrich Title Plant Manager

Business and processes: Mfg. industrial gases. Acetylene, Hydrogen, Nitrogen, Oxygen and Argon.

Type and Quantity I.W. Cylinder testing water; spent caustic from scrubbing system; cooling tower bleed-off and floor wash down

WASTE DISPOSAL: Sample Taken No Parameters Have

Sewer: SMD Local San.Dist. 18 Volume 15,000 GPD

Surface Drainage _____ Cooling Water ✓ Uncontaminated _____

Ground Sludge pit *Holding ~~Tank~~ Sump ✓ Level Alarm —

Other Acetylene tank cooling water to North Fork Coyote Creek

PRETREATMENT FACILITIES: Location See sketch on back

Trap: Standard _____ Non-Standard (B) Nott-FC 1500 GMS

Other (C) Special 4'x8'x10' deep. (D) Special sump

REQUIREMENTS AND DATA:

Inspection Yes Frequency III Permit Have

New Industry No Resurvey Yes T.C. Requested Have

Classification 705 SIC No. 2813 Disp. Method 1 & 5

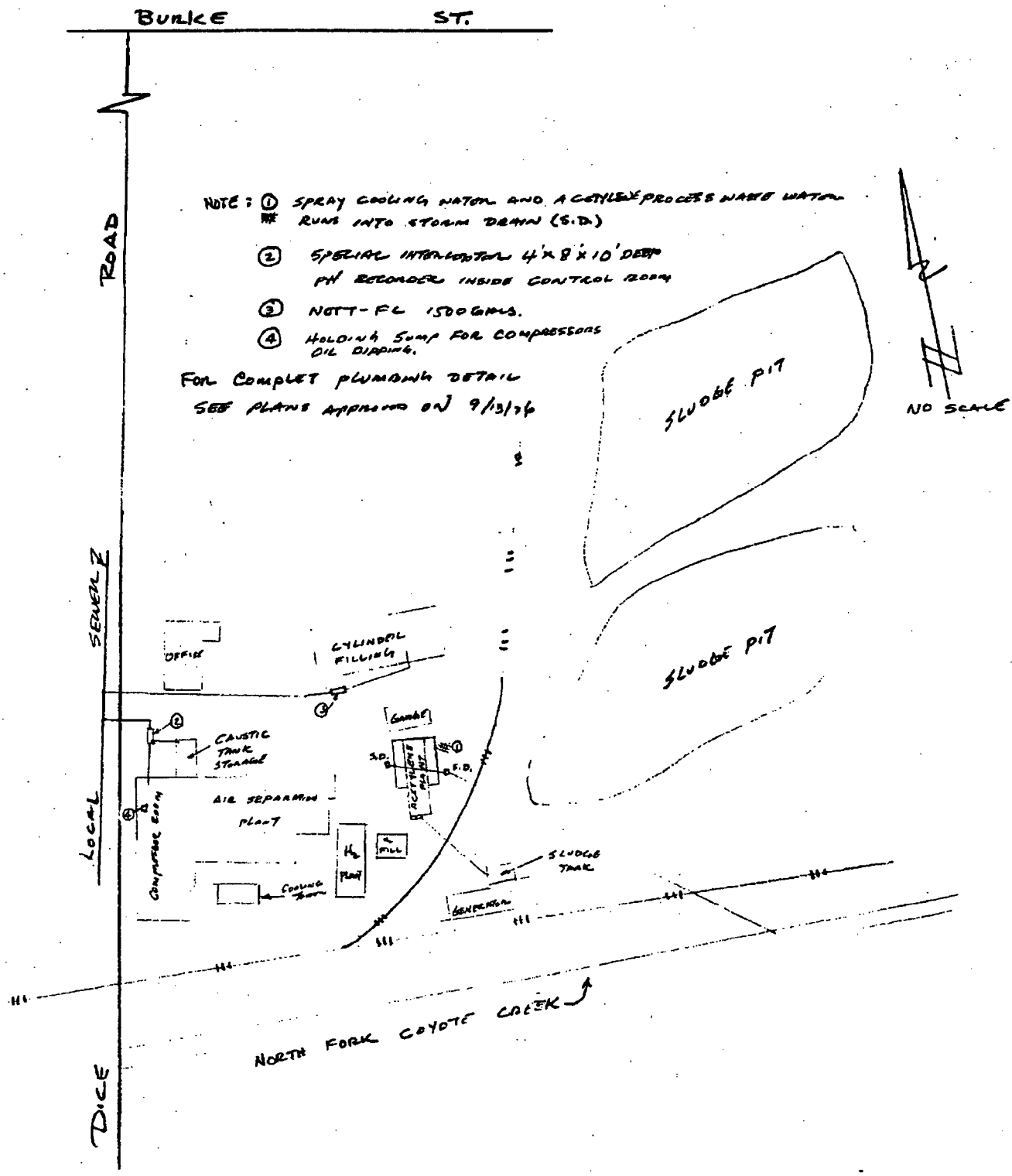
REMARKS AND RECOMMENDATIONS: Resurvey for file information. By-products of calcium carbide at the acetylene plant is pump to sludge holding tank, later hauled to legal point of disposal.

Survey by: Jerry Wenly Date 2-8-77

rz 8 5-74

DICE 02438

REGION FILE



DICE 02439

REGION FILE

REGION 1H

SS 8832 S. DICE ROAD, SANTA FE SPRINGS

TRY LIQUID AIR, INC.

4010 I No. 225 I.W.P. ? CLASS 205 DISPOSAL CODE 1

Y STORM DRAIN

ON OF FACILITY OUTSIDE EAST OF ACETYLENE PLANT

NY REPRESENTATIVE BILL ALDRIDGE OR PHONE 685-4960

OR INSTRUCTIONS MIKE BONIN

CHECK CONDITION AT COYOTE CREEK

REGION 1H

S 8832 S. DICE ROAD, SANTA FE SPRINGS

RY LIQUID AIR, INC

5100 I No. 225 I.W.P. 4784 CLASS 205 DISPOSAL CODE 1

Y NOTT - EC 1500 GALS

ON OF FACILITY OUTSIDE SE OF CYLINDER FILLING R

NY REPRESENTATIVE BILL ALDRIDGE PHONE 685-4960

OR INSTRUCTIONS MIKE BONIN

REGION 1H

RESS 8832 S. DICE ROAD, SANTA FE SPRINGS

STRY LIQUID AIR, INC.

1500 I No. 225 I.W.P. 4061 CLASS 205 DISPOSAL CODE 1

SPECIAL SA-170 - 1 BAFFLE W/ pH RECORDER

ATION OF FACILITY OUTSIDE-WEST OF CAUSTIC TANK

pH RECORDER AT CONTROL ROOM

PANY REPRESENTATIVE BILL ALDRIDGE OR PHONE 685-4960

TCH OR INSTRUCTIONS MIKE BONIN

DICE 02440

March Fong Eu
Secretary of State

1230 J Street
Sacramento, California 95814

CORPORATE DIVISION

Legal Review	(916) 445-0620
Certification	(916) 445-1430
Status	(916) 445-2900
Name Availability	(916) 322-2387
Trademarks	(916) 445-9872
Statement of Officers	(916) 445-2020

In response to your request, the records of this office indicate that we have 2 corporations with the same or similar names. See the attached forms for information regarding these corporations. Decide which corporation is the one you are seeking information on and please resubmit your request with that form and the required fees.

If you wish information on all these corporations, please resubmit request with all forms and include the required fee for each corporation. (Fee: $1.00 per EACH statement requested)

COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL MANAGEMENT - HAZARDOUS WASTE CONTROL PROGRAM

SAMPLE AND EVIDENCE LOG

NAME/DBA Liquid Air Incorp. DATE 5-16-89

ADDRESS 8833 Dice Rd START TIME 1030AM

CITY Santa Fe Springs ZIP 90607 SAMPLER G. Munoz

PHONE (213) 945-1383 WITNESS M. Garcia

Sample/Photo No.	Time	Location	Description
Sam # GM516-891A Photo #	1030A	LIQUID, CLEAR WITH DIRT DRUM LABELED 111TCE & #16	
Sam # GM516-892A Photo #	1100	DRUM, BLACK POLY DRUM NO LABEL	LIQUID, CLEAR
Sam # 3A Photo #	1130	~~DRUM~~ DRUM LABELED FLAM-Solid	SLUDGE MULTI Color
Sam # 4B Photo #	1230	DRUM, BLUE POLY LABEL PH>9 #26	SLUDGE, BROWN IN COLOR
Sam # Photo #			
Sam # Photo #			
Sam # Photo #			
Sam # Photo #			

SPLIT SAMPLES RECEIVED BY: G. Munoz HEALTH OFFICER:

DATE:

DICE 02442

EXISTING INDUSTRY

[illegible]

SANITATION DISTRICTS OF LOS ANGELES COUNTY

[illegible] Beverly Blvd. [illegible]

John D. [illegible], Chief Engineer and [illegible]

[illegible]

[illegible] (Zip)

[illegible] (CHARGE)

[illegible]

[illegible] (Gallo)

[illegible]

DESCRIPTION - ATTACH CHEMICAL ANALYSES RESULTS TO THIS APPLICATION

Person [illegible] discharge

(POSITION) (SUCCEPHONE NO. [illegible])

[illegible] is true and correct and that the applicant will comply with the conditions stated on the back of this permit form.

[illegible] 19[illegible]

[illegible] (Date)

Approved by Sanitation Districts of Los Angeles County

[illegible]

[illegible] local City or County Agency.

[illegible] form when properly signed shall [illegible] permit unless suspended or revoked.

COUNTY, ENG.

DICE 02443

APPLICANT FOR PERMIT MUST READ THIS MATERIAL

T-225-1H
36 gpm

IN CONSIDERATION OF THE GRANTING OF THIS PERMIT, the applicant agrees:

1. To furnish any additional information on industrial wastewater discharges as required by the Sanitation Districts,
2. To accept and abide by all provisions of Ordinances of the Sanitation Districts of Los Angeles County,
3. To operate and maintain any required industrial wastewater treatment devices in a satisfactory approved manner,
4. To cooperate at all times with Sanitation Districts personnel, or their representatives, in the inspection, sampling and study of industrial wastewater facilities and discharges,
5. To notify the Sanitation Districts at 484-1371, Ext. 309, or 775-2353 (Nights) immediately in the event of any accident, negligence or other occurrence that causes the discharge to the sewer of any material whose nature and quantity might be reasonably judged to constitute a hazard to District personnel, wastewater treatment facilities or the environment,
6. To pay to the Sanitation Districts annually the required surcharge fee for industrial wastewater treatment,
7. To submit, as required by the Sanitation Districts, accurate data on industrial wastewater discharge flows and wastewater constituents,
8. To operate only one industrial wastewater discharge point to the sewerage system under the authority granted by this permit;
9. To submit additional pages as required to furnish the necessary information if inadequate room on the reverse side of this permit form is available for complete submittal of requested data,
10. To apply for a revised Districts' industrial wastewater discharge permit if any change in industrial processes or operations creates a significant change in industrial wastewater quality or quantity.

State of California—Health and Welfare Agency

Department of Health Services

COMPLAINT REPORT FORM

CONFIDENTIAL

Is this an emergency? Yes ☐ No ☑ If yes, call the Office of Emergency Services (OES): 800-852-7550

Log Number: 31200066 Date Complaint Received: 12/14/90 Time: ____ Received by: G. Hernandez

Has a Proposition 65 notification been made? ☐ Yes ☐ No

INFORMANT	ALLEGED RESPONSIBLE PARTY
Name: Leigh de Sant	Name: Liquid Air
Address: Environmental Director	Firm: 8832 Dice Road
City: City of Santa Fe Springs	Address:
Phone: (213) 868-0511 X288	City: Santa Fe Springs
☐ Confidential OR ☐ Anonymous (Check one.)	County Code*: 19 Phone: ( )

COMPLAINT DATA

Date of Incident: 12-14-90 3:30 p.m. Allegation Code*: D Quantity: ____

Type/Condition of Containers Visible: ____

Source of Complaint/Code*: D If Code A, Specify: ____

Response Code*: R Region/Agency Referred To: L.A. County

Other Comments: The ARP was Digging out Sludge From one pit and putting it into another. The pit was 12.5, taken by MS. Leigh de Santis.

L.A. County has notified at 3:50 p.m. ON 12/19/90

Response Date: 12/27/90 Investigator: L.A. County

Note: Information to be transferred to complaint log is highlighted in bold print. Attach an addendum if necessary.

* See code on reverse side.

Original—Regional Office Duplicate—Log Triplicate—Investigations

DHS 8231 (8/89)

DICE 02445

CALIFORNIA COUNTY CODE NUMBERS*

Code Number	County	TSCD Section	Code Number	County	TSCD Section
1	Alameda	Region 2	30	Orange	Region 4
2	Alpine	Region 1	31	Placer	Region 1
3	Amador	Region 1	32	Plumas	Region 1
4	Butte	Region 1	33	Riverside	Region 4
5	Calaveras	Region 1	34	Sacramento	Region 1
6	Colusa	Region 1	35	San Benito	Region 2
7	Contra Costa	Region 2	36	San Bernardino	Region 4
8	Del Norte	Region 2	37	San Diego	Region 4
9	El Dorado	Region 1	38	San Francisco	Region 2
10	Fresno	Region 1-F	39	San Joaquin	Region 1
11	Glenn	Region 1	40	San Luis Obispo	Region 1-F
12	Humboldt	Region 2	41	San Mateo	Region 2
13	Imperial	Region 4	42	Santa Barbara	Region 3
14	Inyo	Region 1-F	43	Santa Clara	Region 2
15	Kern	Region 1-F	44	Santa Cruz	Region 2
16	Kings	Region 1-F	45	Shasta	Region 1
17	Lake	Region 1	46	Sierra	Region 1
18	Lassen	Region 1	47	Siskiyou	Region 1
19	Los Angeles	Region 3/Region 4	48	Solano	Region 2
20	Madera	Region 1-F	49	Sonoma	Region 2
21	Marin	Region 2	50	Stanislaus	Region 1
22	Mariposa	Region 1-F	51	Sutter	Region 1
23	Mendocino	Region 2	52	Tehama	Region 1
24	Merced	Region 1-F	53	Trinity	Region 1
25	Modoc	Region 1	54	Tulare	Region 1-F
26	Mono	Region 1	55	Tuolumne	Region 1
27	Monterey	Region 2	56	Ventura	Region 3
28	Napa	Region 2	57	Yolo	Region 1
29	Nevada	Region 1	58	Yuba	Region 1

LEGEND

ALLEGATION CODES

A	Disposal to a sanitary sewer system
B	Disposal during transportation
C	Disposal to a surface water, including storm drains
D	Disposal onto ground
E	Illegal storage
F	Unpermitted treatment
G	Illegal transportation
H	Buried hazardous waste
I	Leaking underground tanks (Refer to local Environmental Health Department.)
J	Abandoned hazardous waste
K	Air emissions (Refer to local Air Pollution Control District.)
L	Other

SOURCE OF COMPLAINT CODES

H	Hotline call
D	Direct public contact (phone, walk-in, mail)
A	Referred from another agency
Q	Referred from Headquarters or other TSCD region

RESPONSE CODES

I	Investigated
L	Letter sent
R	Referred

TSCD SECTION CODES

Region 1	Sacramento Regional Office
Region 1-F	Fresno District Office
Region 2	Emeryville Regional Office
Region 3	Burbank Regional Office
Region 4	Long Beach Regional Office

* County code designations by the California Department of Motor Vehicles

DHS 6231 (8/89)

I-225

Lab. Copy ..... WHITE
I File Copy ..... BUFF
Field Copy ..... PINK
Num. Copy .... GREEN

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
INDUSTRIAL WASTE DIVISION

CHEMICAL ANALYSIS

Analysis requested by T. Otteson

Sample of brown scale like solids removed from Dice Rd sewer downstream from 8832 S. Dice Rd *file:* I 225-1H I 4245-1H

Source of suspected contaminants, i.e., character of industrial process, etc.

Cal Oxygen Co and or Southern California Chemical Co.

Sample marked BVD *collected by* _____

Quantity _____ *Date* 2-3-64 *Time of day* _____

		PARTS PER MILLION			PARTS PER MILLION
Calcium	✓	11.6%	Hydroxide		
Magnesium			Carbonate	✓	10.8%
Sodium			Bicarbonate		
Iron	✓	10.4%	Chloride		
Manganese			Sulfate	✓	0.2%
Aluminum			Nitrate		
Boron			Sulfide		
Chromium			Fluoride		
Silica			Phosphate		
			Cyanide		
Total Cations			Total Anions		

Total Ions (calculated dissolved solids) _____

pH			Dissolved Oxygen		
Hardness (as $CaCO_3$)			Biochemical Oxygen Demand		
Alkalinity (as $CaCO_3$)			Dissolved Solids		
Carbon Dioxide (Calc.)			Suspended Solids		
Phenols			Total Solids		
Oil & Grease			Turbidity		
Non-Carbonate. Hardness			Sodium Ratio		
Conductance K x 10^{-6}					

Remarks or special analyses _____

Received at laboratory 2-5-64 *Laboratory No.* 17650

Analysis by [signature] *Date* 2-6-64

76C211F—CE 644—

DICE 02447

I-225

[redacted]

To: Mr. T.T. Otteson
From: Mr. J.H. Stewart
File: A-SEWER INVESTIGATIONS
Date: 2-14-64

This is a follow-up report on my investigation to determine the cause of the deposition of large quantities of scale in the sewer on Dice Road, downstream from the Cal-Oxy Company.

Mr. Robert Moore and J.H. Stewart visited the plant of the Southern California Chemical Company and discussed the problem with Mr. Ed King, one of the owners of the company. He was queried as to whether or not his company was picking up all the caustic wastes from the Cal-Oxy Company. He stated that since November, 1963 they had picked up very little of the caustic waste from that company. It appears that during the winter months the caustic crystallizes in the outlet line from the storage tank, and they are unable to pump the material out of the tank. Mr. King stated that he had suggested to Cal-Oxy that they install heaters in the tank to prevent this crystallization, which would permit his company to remove the caustic all year round. An inspection of the interceptor at the Southern California Chemical Company disclosed a build-up of 1 inch to 1½ inch of sludge on the walls of the interceptor at the flow line. This material was removed from the walls in the outlet compartment, and Mr. Moore will inspect the interceptor at frequent intervals to note the rate of build-up of the sludge on the wall.

Mr. Jack Smith of the Cal-Oxy Company was next interviewed, and the statement was made to him that it was our opinion that they were probably discharging quantities of caustic to the sewer in excess of that agreed upon. It was stated that this was based on the high percentage of calcium carbonate hardness found in the material removed from the sewer. Mr. Smith then stated that during cold weather they sometimes had difficulty in getting caustic to flow from the storage tank. He was told that we could not permit this discharge of caustic to continue except on an emergency basis, which could be considered as once or twice a year, and that he would have to do something to correct the situation at once. He agreed to take the matter up with his superiors to get authorization for the purchase of a heater to be installed in the caustic tank. He stated that after the heater is ordered, it will require two weeks for delivery. Mr. Moore informed him that he would return in the near future to see what progress had been made in correcting the situation.

JHS:cm
cc: Reg. 1
I- 225, 1H
I-4245, 1H
JHS

I-225

[redacted]

To: Mr. R.A. Moore
From: Mr. T.T. Otteson
File: A-SEWER INVESTIGATIONS
Date: 2-3-64

Mr. Ed Watts reported this afternoon that a large quantity of scale, resembling rust, is being removed from the Dice Road sewer, downstream from Cal-Oxygen Company.

Mr. Watts will leave a sample of this material at our laboratory, and I will request an analysis so that we can determine which of the two companies may have discharged wastes resulting in the deposit of this material. It would appear likely that So. California Chemical Company, rather than Cal-Oxygen, is the prime suspect.

Please investigate present disposal methods and practices, and I will forward to you the results of the chemical analysis when available.

TTO:cm

cc: I- 225, 1H
I-425- 1H
A-Sewer Invs.
Sec. D

OCT 15 19..

F6L 268 Cdb 10-61

LOS ANGELES COUNTY

LETTERGRAM

To Mr. John Exton
Regional Engineer
Los Cerritos Regional Office

From Mr. Bernard Valasky

Date 10-11-62

No.

Subject

CAL OXYGEN COMPANY
8832 Dice Road
City of Santa Fe Springs

We have approved the installation of a Nottingham FJ-14 interceptor and an S-a-156 at the existing building of the Cal Oxygen Company located at 8832 Dice Road in the City of Santa Fe Springs.

Waste from the floor trenches, which include pump drippings, floor washdown and pump leakage, will be discharged through the Nottingham interceptor placed outside the building and then discharged to the sanitary sewer located in Dice Road.

The S-a-156 will receive boiler blowdown, cooling tower bleedoff and backwash from a Zeolite water softener. These wastes will be connected to the sewer at the discharge end of the Nottingham interceptor.

Mr. Delaney, Plant Manager, has been informed that the house connection sewer shall be constructed with a grade of not less than one percent. It is understood that there will be no plumbing in the existing building. All piping to be constructed in the existing building will be considered as process piping. We are approving these installations by lettergram with the understanding that Mr. Delaney will submit four copies of as-built plans upon completion of the above construction.

Bernard Valasky

Bernard Valasky
Associate Civil Engineer
Industrial Waste Division

BIV-LQ:rst

DICE 02450

LIQUID AIR CORPORATION
INDUSTRIAL GASES DIVISION

[illegible] Embarcadero Center, San Francisco, CA 94111
Telephone: (415) 765-4500

January 10, 1986

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670

Attention: Mr. George C. Beaty
Assistant Director for Planning

Dear Mr. Beaty:

Liquid Air Corporation would like to build a plant on our Dice Road Site and begin the permitting process as soon as possible. From our conversation of last month I understand that proposals must be submitted through you to the Planning Commission and to the Redevelopment Agency for review and approval.

I am enclosing for your review, a brief description of our process, the preliminary site plan, a photograph of our Oklahoma City plant and the only available photographs of our new Tucson plant.

We are interested in moving toward construction as quickly as posible. We will therefore be happy to provide you with as much additional information as you will require. This does not constitute a formal request for approval, but is intended to introduce ourselves and our project.

Very truly yours,

Edward S. Marlovits
Manager, Power Planning

P.S.

After January 17, 1986 our address and phone will be:

2121 California
Walnut Creek, CA 94596
(415) 977-6500

Mailing Address: P.O. Box 7468, San Francisco, CA 94120 • Telex: I.T.T 470876 or 470020 • DEX: (415) 765-4537

Santa Fe Springs Project

Liquid Air Corporation wishes to build and operate an air separation plant on its site in Santa Fe Springs. This plant will separate atmospheric air into its major components, oxygen, nitrogen and argon, for distribution and sale to our customers in Southern California. Our products have wide ranging application in the health care, semiconductor, food processing, metal working, aerospace, and petrochemical industries.

Liquid Air is a Fortune 500 company with annual sales in excess of one-half billion dollars with roots extending to the beginning of our industry. We have sixteen major plants in the U.S. and a number of smaller units in operation across the country.

We have estimated the cost of the proposed plant at $15 million with the actual construction requiring less than nine months. Since our products are the components of the air, our plant is inherently pollution free. The most apparent indication of plant operation would be the cooling tower vapor plume.

Employment at the plant is low. During operation we would employ six to eight people. In addition to the personnel people assigned to the plant, we would employ as many as 15 truck drivers.

The production of oxygen, nitrogen and argon is accomplished by liquefication and distillation of atmospheric air. The process requires several compressors which are housed in a compressor building, a "cold box" (a tower-like structure housing heat exchangers and distillation columns), and a storage tank for each of the products. Since the process and products are at cryogenic temperatures, minus 300°F, the cold box and storage tanks are heavily insulated. The process is fairly simple. After removal of particulates, hydrocarbons, moisture, and carbon dioxide, compressed air is delivered to the cold box where it is liquefied, distilled into its pure components, and sent to the storage tanks. Product is delivered by tank trucks to customers who are generally within a 200 mile radius of the plant.

The plant will require roughly 80,000 gallons per day of water for cooling and will discharge about 25,000 gallons per day of cooling tower blow down. This blow down is necessary to control scaling in our cooling system. Its hardness is four times that of the incoming water and it contains small amounts of antiscalants and a algaecide. There are no hazardous chemicals contained in this stream.

The major structures of the plant are described as follows:

Electrical Substation - The plant will have an electrical power requirement of 10,000 kilowatts which would be supplied by Southern California Edison at 60,000 volts. A 70 x 100 foot area contains transformers which convert the 60,000 volt delivery to lower voltages required by our machinery.

Compressor Building - A 60 x 80 foot building used to house our compressors. The eave height of this building is typically 32 feet.

Cooling Tower - A device used to cool water by evaporation of part of it. This is used to remove the heat buildup that occurs as gas is compressed. We use the same type of cooling towers that are used for the air conditioning of large office buildings.

Cold Box - This is a 115 foot tall structure that houses our heat exchangers and distillation columns.

Storage Tanks - Liquid oxygen, nitrogen and argon are stored in double walled insulated vessels which will be 50, 75, and 30 feet in height, respectively.

Distribution Building - There is a two bay garage and office.

Control Room - This houses our control systems, manager's offices, and storage areas.

Ammonia Tank - Ammonia is used in small quantities as a source of hydrogen The hydrogen is used in a catalyst bed to remove trace amounts of oxygen the argon stream prior to final purification.

January 14, 1986

MEMORANDUM

TO: T. T. Otteson
FROM: J. H. Stewart
DATE: September 10, 1964
FILE: A-SEWERS-INVESTIGATIONS & STOPPAGES

On 8-12-64, received a report from the L. A. County Sanitation Districts that the siphon on their trunk sewer on Santa Fe Springs Rd. north of Los Nietos Rd. was loaded with sand and scale and that the L. A. County sewers feeding into this trunk appeared to contain excessive quantities of the same materials.

The L. A. County Sewer Maintenance Section was notified of the problem in the local sewers the same day the report was received.

The industries suspected of contributing this type of material to the local sewers above the siphon are located along Dice Rd. and a trip was made to that location with Mr. Bob Cathey. It was observed that the City of Santa Fe Springs was resurfacing a section of Dice Rd. and that in the operation had sheared off the top section of a manhole on the local sewer. At the time of our arrival the top of this manhole was covered with the heavy steel plate but is is impossible to state what quantity of resurfacing aggregate had been deposited in the manhole before the steel plate was installed.

A visit was made to American Cryogenics at 8832 Dice Rd. and it was learned that the caustic scrubber wastes from this plant were being discharged to the sewer instead of to a holding tank which they had previously agreed to do.

The company officials were informed that they must discontinue the discharge of caustic wastes to the sewer and were given until September 10, 1964 to install any facilities required to have the waste hauled from the premesis to a legal point of disposal. Such facilities have now been installed on a trial basis and as of this date there is no discharge of caustic wastes to the sewer.

DICE 02454

Follow-up inspections will be made at the American Cryogenics plant to make sure that the disposal system functions properly and the sewer downstream from the plant will be observed to note any possible build up of scale.

It is believed that the elimination of the discharge of the highly alkaline waste to the sewer will prevent any future build up of scale in the line.

JHS-bw

cc: JHS-2
File: A-Sewers-Investigations & Stoppages

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
7 SOUTH BROADWAY, ROOM 7011
LOS ANGELES, CA 90012
(213) 620-2380

PRELIMINARY ASSESSMENT

DATE: March, 1988

PREPARED BY: John Hostak
DHS-Toxic Substances Control Division
Southern California Section
(213) 620-2380

SITE: Burdett Oxygen Co., CKA Liquid Air Corp.
8 832-8838 Dice Road
Santa Fe Springs, CA 90670

EPA#: None ASPIS#: 19-28-0224

SITE DESCRIPTION:

Burdett Oxygen Co., currently known as Liquid Air Corporation, is located at 8832-8838 Dice Road, Santa Fe Springs, in southeast Los Angeles County (fig. 1). The present site occupies 14.6 acres, divided by a main trunk and three spurs of the Southern Pacific Railroad into a product processing area, waste pit area and crop field (1). A unlined drainage channel, identified as continuous with North Fork Coyote Creek, is located to the immediate south of the railroad right of way. (1,2). Use of the surrounding region is devoted to industry, residences, commerce, and some agriculture (1,fig.2).

An acetylene manufacturing plant was established on the site in 1946 by the Burdett Oxygen Company of Cleveland, Inc., William H. Loveman, President (3,4). The manufacturing process uses the reaction of calcium carbide stock and water to produce acetylene and slaked lime as below ...

$$CaC_2 + 2H_2O \text{ -- } Ca(OH)_2 + C_2H_2$$

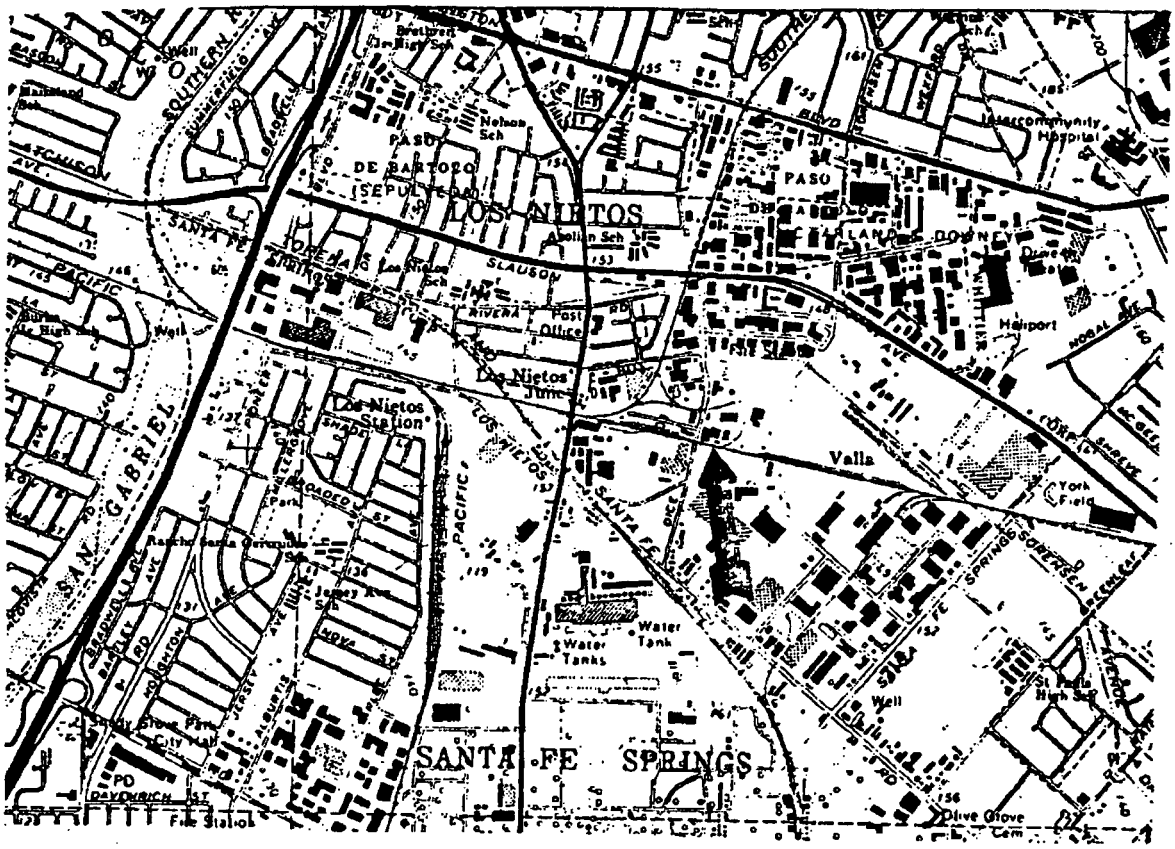
... typically with a variety of trace impurities (5,6). The company excavated pits, estimated to be 500,000 cubic feet in volume, to accumulate the acetylene sludge by-product, principally slaked lime (7,8). In 1957, an air separation plant for the production of oxygen was installed by the company, then called the Burdett Oxygen Company of California (9). In 1962, the facility operated as the California Oxygen Company, and, by 1964, was known as the California Oxygen Division of American Cryogenics, Inc. (10,11). In 1971, the facility was known as the American Cryogenics Division of Liquid Air, Inc. (12). Also in 1971, the acetylene plant was reconstructed due to its destruction by fire in the previous year (13). The air separation plant was acquired by the M.G. Burdett Gas Products Co. in 1980 (14). The air separation, or "liquid" plant was closed at that time and has remained inoperative to the present day (15,16). The entire facility is currently owned by the operator, Liquid Air Corporation (Liquid Air), which is essentially the same company in operation since 1963 (17,18). The recent operation under Liquid Air has consisted of acetylene production, as described, and the repacking of industrial and medical gases such as CO_2, H_2, He, N_2, N_2O, O_2, propane, and fuel gas (18)

FIGURE 1

Site Location Map

Burdett Oxygen Co, Cka Liquid Air

ASPIS # 19-28-0224



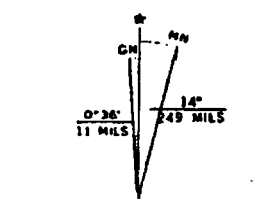
SCALE 1:24 000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929



ITM AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

WHITTIER, CALIF.
N3352.5—W11800/7.5

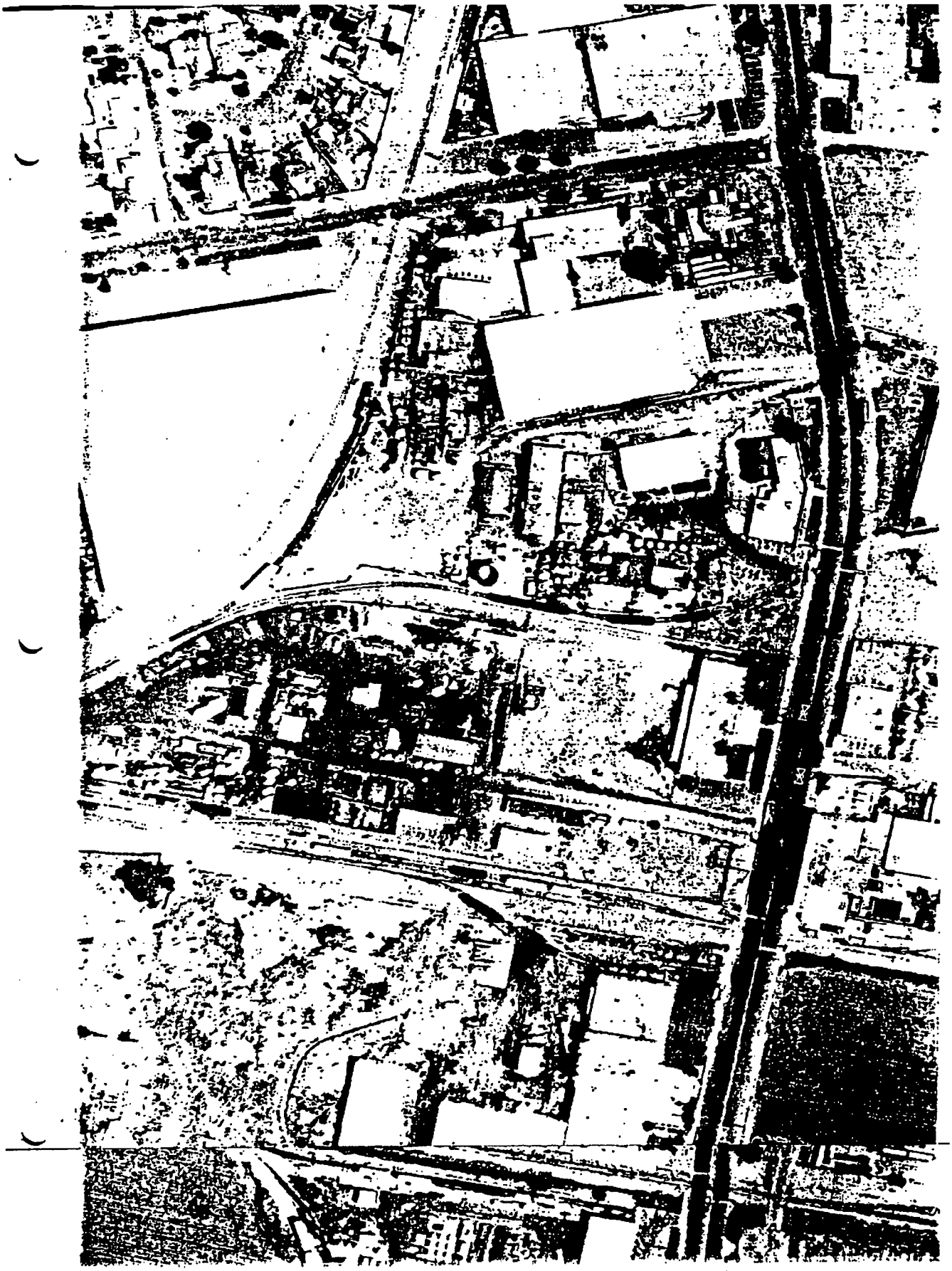
1965
PHOTOREVISED 1981
DMA 2351 I NE-SERIES V895

FIGURE 2
AERIAL PHOTOGRAPH OF
LIQUID AIR FACILITY
AND SURROUNDINGS

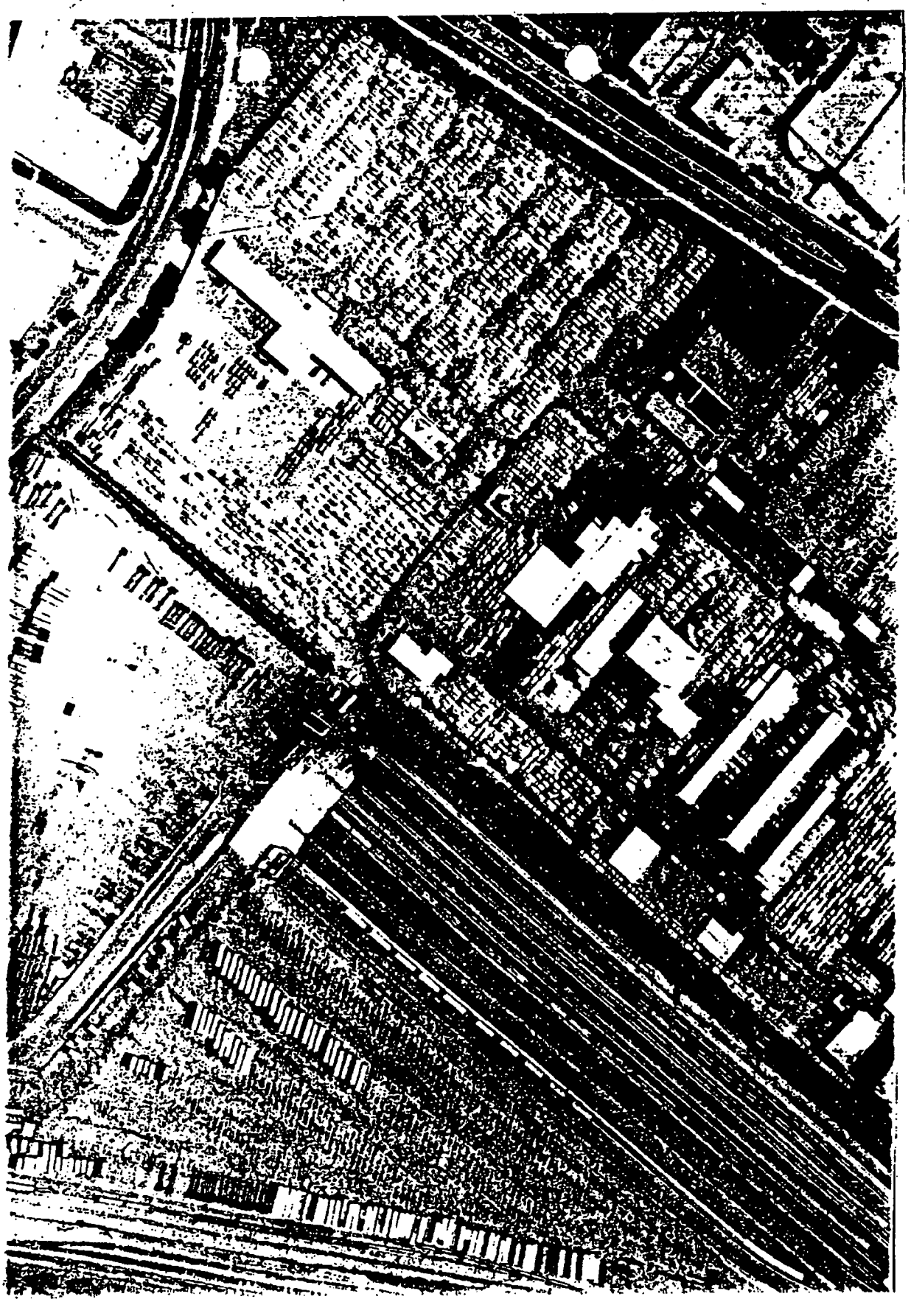
IN 6 PARTS, ARRANGED:

↑ N

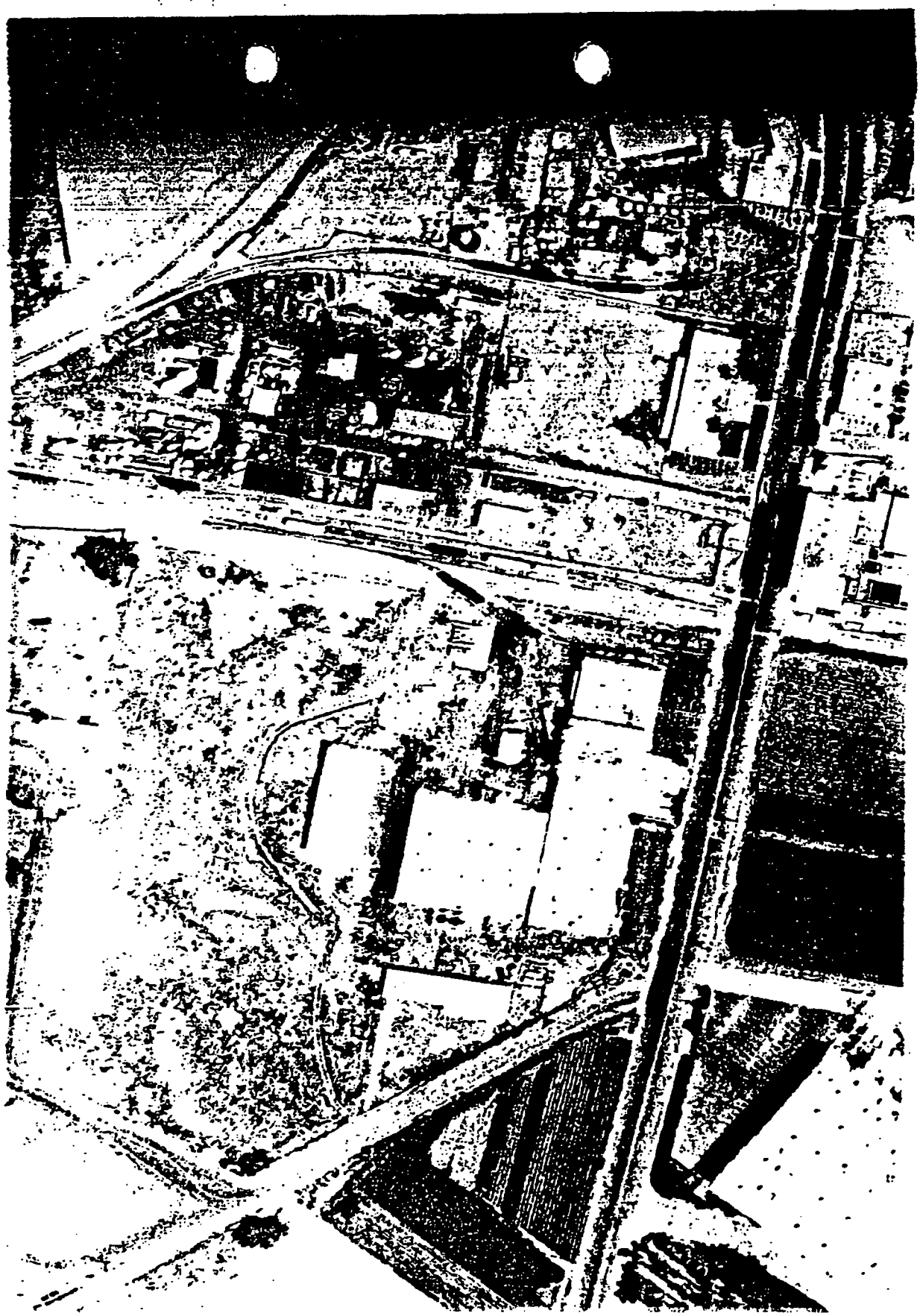
6a	6b	6c
6d	6e	6f



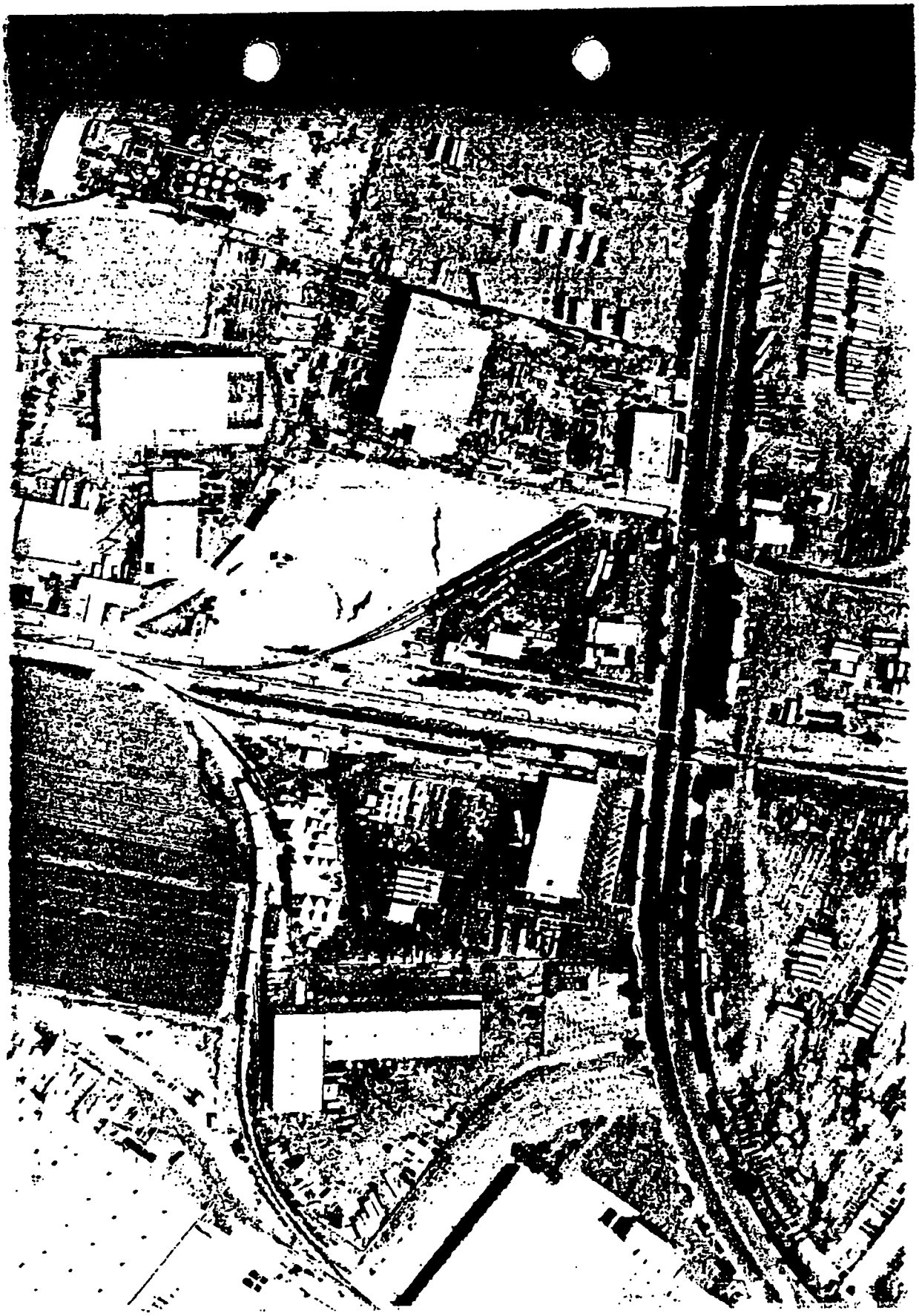
46C

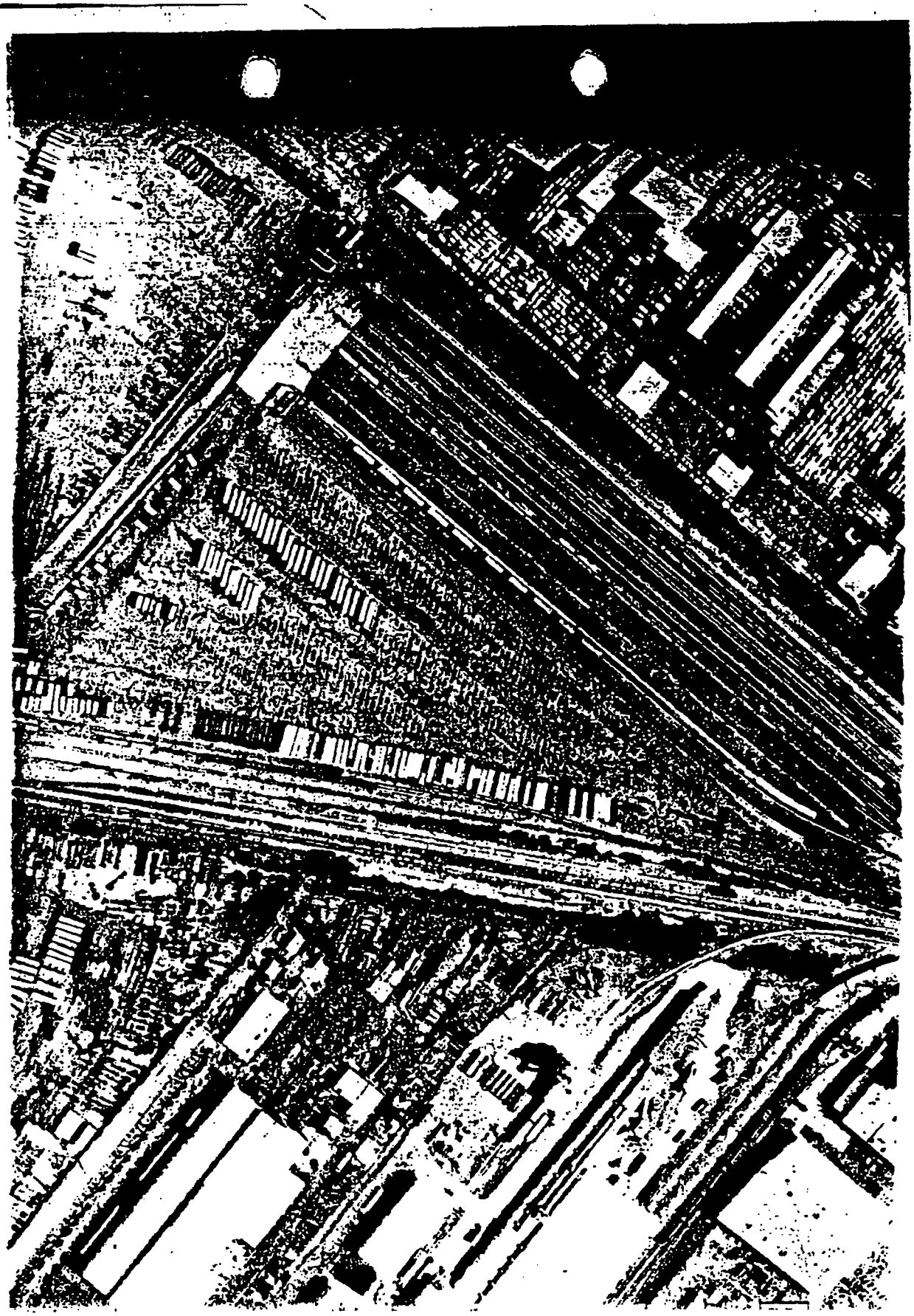


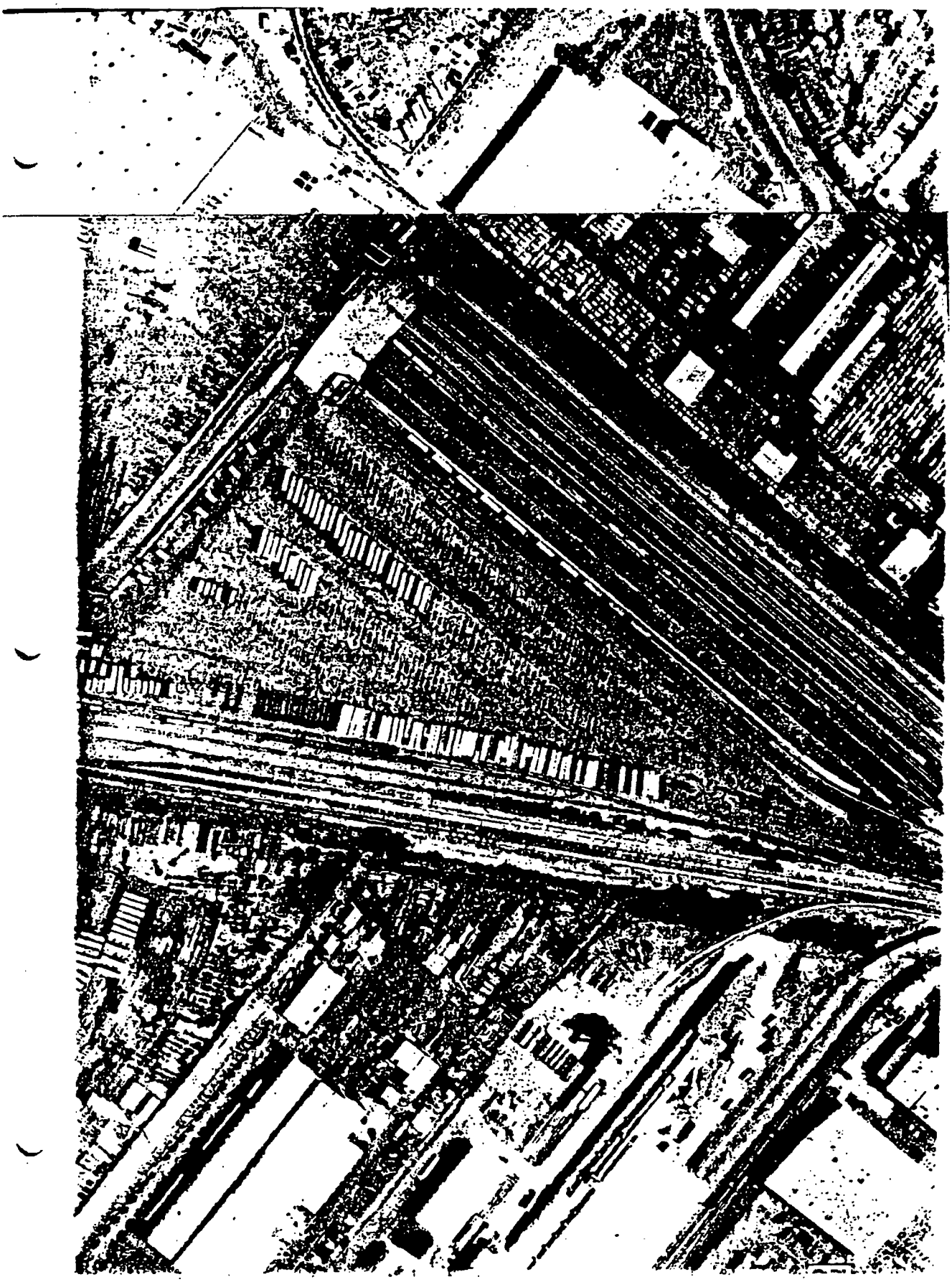
6D



E↑







Apparent Problem

Periodic inspections by the Department of the County Engineer, Los Angeles County (LACE) throughout the years 1949 to 1955 indicated that the Burdett Oxygen Company was in compliance with the requirements of an industrial waste permit under Los Angeles County Ordinance 6130 (LAC Ord. 6130) (8). Waste sludge from acetylene production and coolant water were discharged under this permit to the unlined quarry pit or pits mentioned above (7,8). In 1962, LACE inspectors observed an indirect waste trap that resulted in the deposit of caustic effluent into an earthen pit at the facility. A direct connection was ordered by the inspectors and a representative effluent sample measured pH 12.4 (19). In 1963, LACE inspectors responded to a complaint regarding a waste water discharge into the unlined drainage channel, located south of the formerly standing cooling tower. The inspectors verified that liquid waste from cleaning the cooling tower basin was being discharged as indicated, but no further action was recommended by the agency (20). A violation of LAC Ord. 6130 was documented by LACE inspectors in 1964, consisting of a caustic waste spill on the ground surface. A clean-up order was issued at that time (21). The same condition was noted by the agency in 1949, but did not prompt apparent action at that time (8). A facility visit by LACE inspectors in 1964 revealed an unpermitted discharge of caustic wastes to the public sewer system. Company officials were ordered to discontinue the practice (22).

In 1976, representatives of the California Regional Water Quality Control Board, Region 4 (RWQCB) reported illegal discharges of acetylene production wastes and cooling water to the unlined drainage channel, or North Fork Coyote Creek, for which clean-up orders were issued (23,24,25). Analysis of the process waste effluent revealed a measured pH of 12.2 and total dissolved solids concentration (TDS) of 3,320 mg/l (26). The findings above culminated in a 1977 order by the RWQCB to Liquid Air to comply with waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) (2). Effluent limits under the NPDES permit included pH 6.0-9.0 and maximum TDS of 700 mg/l (2). Later in the same year, the RWQCB documented excessive quantities of acetylene process wastes deposited in the drainage channel, in violation of permit requirements (27). The NPDES permit was allowed to expire by the RWQCB with the understanding that there were no further discharges of the indicated wastes to U.S. waters (28,29). A facility drive-by conducted by DHS representatives in 1981 confirmed the presence of acetylene sludge ponds containing liquid wastes on the site in 1981 (31). The facility was referred for consideration by the enforcement branch in 1982 (32). No further information was available.

The Los Angeles County Department of Public Works Waste Management Division (DPW, formerly LACE) targeted a leaking 6200 gal underground acetone storage tank for repair in 1986 (33). The engineering firm of Stearns, Conrad, and Schmidt are currently developing a tank investigation work plan (34,35). Initial tank analyses by their representative yielded an average material loss rate of 0.1566 gal/hr from the tank, a value in excess of the allowable

tolerance of 0.05 gal/hr (36). A letter of noncompliance regarding the leaking underground acetone storage system has been issued by the DPW (37).

A DHS facility drive-by conducted on February 25, 1988 revealed ten or more piles of white to gray waste materials on the unpaved ground surface along the southern border of the waste pit area. The piles were approximately 8' to 12' in height, covering a lateral distance of about 100'. The piles obscured further view of the waste pit area. Also observed were deposits of white material along the railroad tracks and right of way near Sorenson Road (1).

An inspection of the facility in March, 1988, by the Santa Fe Springs Fire Department revealed storage of twenty to thirty 55 gal drums containing oil, paint, and other wastes inside the waste pits (38). This matter has been referred for investigation to the Los Angeles County Health Department; the results of their action are forthcoming (39).

The facility is under permit as Alpha Gas by the South Coast Air Quality Management District (SCAQMD). An agency representative has reported no violations or enforcement action at this time (30).

HERS FACTORS:

Observed Releases:

Numerous incidences of the release of caustics, acetylene process wastes, and other waste waters to the ground surface and surface water channels have been documented by the LACE and RWQCB, as reported in the Apparent Problem section (8,19,20,21,23,24,25, and 27). Values for pH as high as 12.4 and concentrations as great as 3,320 mg/l were reported for those releases (19,26). Ground surface deposition on and off site of acetylene process waste was apparent during a recent DHS drive-by (1).

Direct Contact/Fire and Explosion:

The original acetylene generating and filling facility was destroyed by fire in 1970 (13). High temperatures and pressure continue to represent a major safety concern since the acetylene generating reaction liberates 900 BTU for each pound of CaC_2 reacted (6).

The predominant waste product on site, $Ca(OH)_2$, is highly alkaline; a saturated solution at 25^0C measures pH 12.8. Direct contact can result in eye and skin irritation (40). As has been noted, off site deposition of this waste product has been reported (1,23,24,27).

Site entry is largely controlled by the walls of buildings or by a chain link fence. Fence openings appear near the railroad spur bordering the waste pit and piles. The crop field, also part of the facility, is not fenced (1). Corn produced in the field may be sold for human consumption (16).

Waste Type:

A wide variety of waste have been generated and stored at this facility. Acetylene sludge containing slaked lime ($Ca(OH)_2$) has been produced more or less continuously over the 42 year history of the site. Rates of production have ranged from 3000 lbs per day in 1949, mixed with 3000-5000 gal. of cooling water, to approximately 5000 gal (55,000 lbs) of acetylene sludge per day in 1981 (8,41,42). The sludge has historically been stored in unlined quarry pits with an approximate 500,000 cubic foot capacity (8,32). In addition, it is stated that three 10,000 gal open top gravity tanks on site are also used for storage (41). Acetylene sludge is classified as a recyclable waste under California Regulations (43). The sludge has been purchased by Superior Lime (18). It is not known if or how the material is further treated prior to sale as product. There is anecdotal evidence, however, that Super Lime's slaked lime product contained unacceptable amounts of sulfide contaminants (42). Hydrogen sulfide is a common contaminant in the acetylene from carbide production process. Other common contaminants include phosphine, ammonia, and organic sulfides (6). Gas phase process contaminants are adsorbed in a drying process and the adsorbant is recycled offsite (16).

Although the cooling tower no longer stands on site, bleed-off water was produced at a rate of 10,000 gal/day. This water contained H_2SO_4 (pH 6.5-7.0), zinc chromate (15 ppm) and sodium pentachlorophenate (<1ppm) (44). Disposal of cooling tower waste water was primarily via the public sewer, passing first through a trap or intercepter (45,46). However, discharge of cooling tower waste water or bleed-off to the ground surface and to surface water has been reported (20,47). Cooling water was also disposed of in the unlined quarry pits; later this waste water was recirculated from the pits into the manufacturing process at an undisclosed phase (8). Among the cooling water treatment chemicals was $ZnCrO_4$. While the constituent ions are considered to be of low toxicity, in combination $ZnCrO_4$ is a suspect carcinogen (49). Sodium pentachlorophenate (the sodium salt of pentachlorophenol or "penta") is an irritant of the skin, eyes and upper respiratory tract (50). An oral LD_{50} of 50 mg/kg and a dermal LD_{50} of 105 mg/kg have been experimentally determined in rats while a human LD_{LO} of 29 mg/kg has been observed. It is rated high in toxicity by oral, dermal, and inhalation routes. Acute poisoning shows weakness, dermatitis changes in respiratory function, blood pressure and urinary output, culminating in convulsions and collapse. Chronic exposures may result in liver and kidney injury (51). Its environmental persistence is high (52).

An air scrubbing tower in use at the facility produced a spent caustic solution containing NaOH, $NaHCO_3$, and Na_2CO_3. The caustic waste was stored in a 3000 gal holding tank for later pickup by a private contractor. The untreated, spent caustic (pH 12) was also discharged to the public sewer system (44,45). The bulk of the caustic waste was purchased by Southern California Chemical Co. at 8851 Dice Rd., Santa Fe Springs (48). Ground surface disposal of caustic wastes was noted in the early operation of the facility (8).

Paint wastes are also generated at the facility, derived from the operation of a cylinder spray paint booth. Waste water from the operation was collected in a 388 gal sump and transferred to a 1500 gal interruptor where paint solids were dispersed for flotation and skimmed off the surface (53). Rate of waste production was estimated at 300 gal/month (54). Paint waste disposal in 55 gal drums was observed in the unlined waste pits (38).

Waste oil is produced from compressor and truck maintenance at the facility (16). A permit to remove a 1000 gal underground waste oil storage tank was applied for in 1987 (55). The current status of the removal is not known. However, disposal of waste oil in 55 gal drums was observed in the unlined waste pits (38).

Other wastes generated on site include out of date acid and alkaline cleaners, otherwise unspecified, which are stored in the unlined waste pits. There are indications that these wastes, along with paint and oil wastes, may have been stored in this condition over 90 days (38).

Ground Water

Domestic water uses are supplied by ground water wells in the region. The closest of such wells is located approximately 0.15 mile north of the facility (56,57). Total well depth extends to 900' below ground surface, with preforations at 200'- 288' and 300'- 900' (56). Ground surface elevation is approximately 150'above mean sea level (57). Soils in the region range from gravelly loam to silty clay, are well drained and have slow subsoil permeability (58). Although well log interpretations vary over the immediate region, the subsurface lithology can be generally described as unconsolidated alluvium to a depth of over 880' where siltstone and sandstone are encountered (56,59). The overlying column of alluvium consists of gravel, sand, and silt bearing layers. The shallowest layer in which clay predominates in the subsurface was found at a depth of 40' (56). The standing water level in the closest well indicated above was recorded at 64' (60). The top of the water table was located at 50' and a perched water table was located at a neighboring property at a depth of 29' (59). An additional complication in the characteristics of regional hydrogeology results from the merging of several important aquifers. These aquifers span the rock column from near surface depths to approximately 950' below ground surface. The affected aquifers include the Gaspur, Gage, Hollydale, Jefferson, Lynwood and Sunnyside Aquifers (61). Perforations in the above mentioned municipal well correspond approximately with the depths of the Lynwood, Silverado, and Sunnyside Aquifers (56,61). The potential for hydrological continuity due to the local merging of aquifers could serve to explain, in part, observed groundwater contamination. Analytical results from ground water tests from the well in question have demonstrated contamination by the solvent trichloroethylene (62,63).

Exact data regarding the number of domestic well water users was not available at this writing. However, well production rates have been measured at 1567

gpm, and a first estimate of water use from the specific well was approximately 7500 persons (64,65). The total population estimated to be affected by ground water use may be as high as 13,000 or more persons since groundwater has wide local use (59,64).

Surface Water:

An unlined drainage channel with intermittent status is located to the south of the facility's processing and waste pit area, contiguous with the northern boundary of the crop field (1). The channel is tributary to Coyote Creek, which is in turn tributary to the San Gabriel River (24). The facility is located within the 100 year flood plain of that river, which is located about 1.2 mi to the west (66, fig 1). The slope of the site varies little from 0 to 0.36%. The region slopes generally in a westerly direction, towards the river (fig 1). Seasonal rainfall from January to March measures 7.95" with evaporation of 6.14", netting 1.81" for the season (67,68). Storm drains on the facility have been shown to discharge rain runoff to the unlined drainage channel (24).

Local uses of the potentially impacted San Gabriel River, a U.S. water, include groundwater recharge, contact and non contact recreation, and provision of warm water habitat for wildlife (69). Rare and endangered wildlife in the Whittier Narrows or coastal wetlands will probably not be affected due to distances greater than 3 mi.

CONCLUSION/RECOMMENDATIONS:

Historical investigation of this site has revealed releases of hazardous wastes to the environment by facility operators. Releases to U.S. surface waters and the ground surface have been documented. On site disposal of a variety of wastes to unlined waste pits has occurred. Poor waste disposal and handling practices have been noted. Wastes parameters including pH as high as 12.4, high toxicity and environmental persistence, and potential carcinogenicity have been cited.

Potential ground water impact is high due to possible hydrological continuity and large local populations served by ground water. Further investigation will help to more precisely quantify all of these effects. For these reasons, the following recommendations are made:

A. EPA Action: A screening site investigation conducted under CERCLA is recommended since the site is likely to score above 28.5 on the Mitre Model.

B. DHS Action: Pending status is recommended regarding DHS action at this time.

FACILITY PROFILE REPORT

COUNTY: LOS ANGELES REGION: SOUTHERN CALIFORNIA

FILE NUMBER	FACILITY
19-28-0224	BURDETT OXYGEN COMPANY OF CA. (1) 8838 S DICE RD SANTA FE SPRING, CA 90670

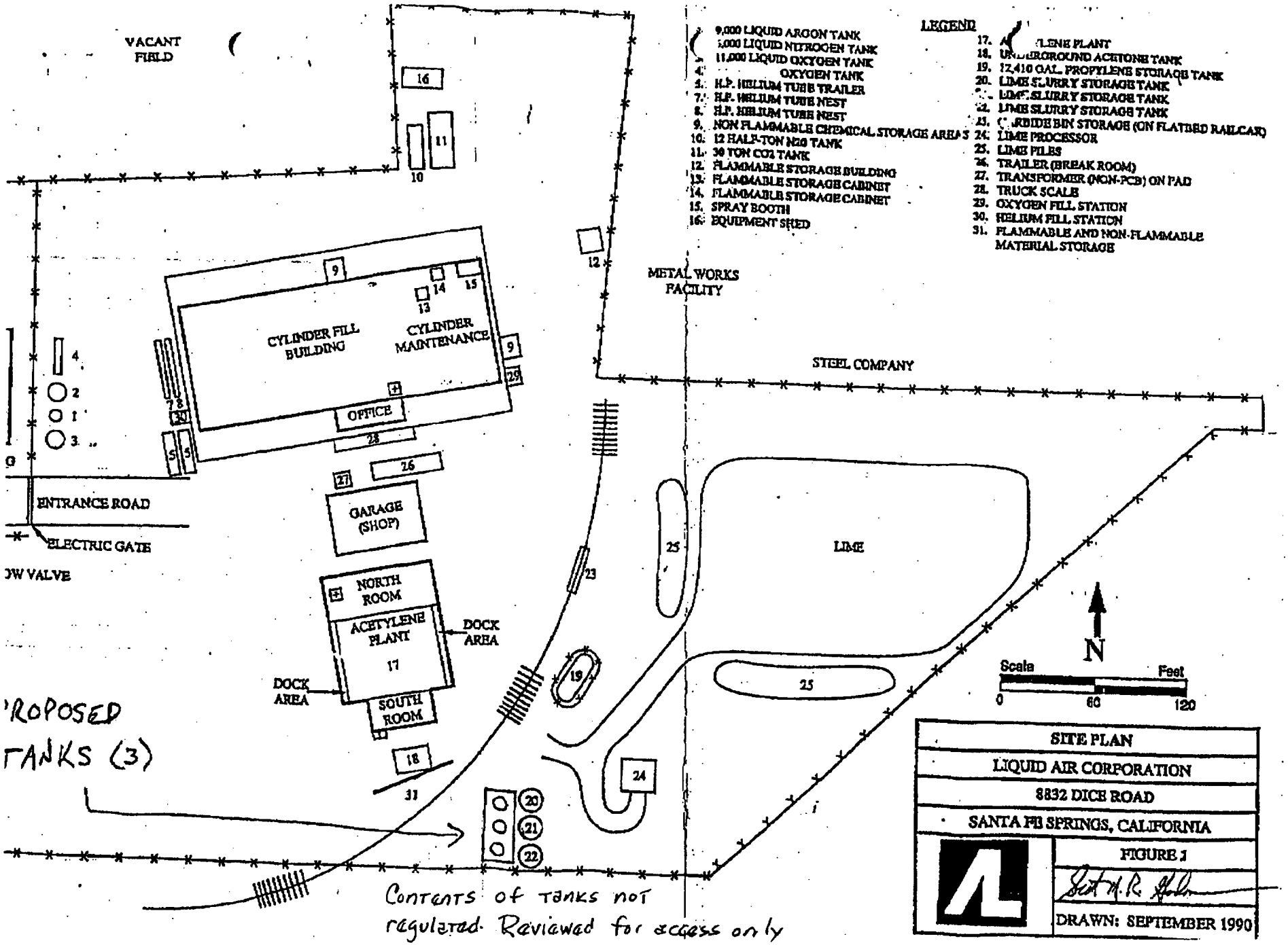
OPERATOR	LAND OWNER
000-000-0000	000-000-0000

FUND SOURCE: SITE EVALUATION PROGRAM

ACTION STATUS: PA REQ. (MED) DATE: 05-21-87

CHARACTERIZATION	ITEM	VALUE
102 FACILITY STATUS	002 INACTIVE	
105 OPERATIONAL METHOD	002 SURFACE IMPOUNDMENT	
11 RWQCB REGION	004 LOS ANGELES	
115 COMMENCEMENT DATE(Y)	001	1950
116 CLOSURE DATE(Y)	001	1955
203 HZD WASTE CHARACTER	003 SLUDGE	
204 HZD WASTE CATEGORIES	002 IGNITABLE	
205 HZD WASTE TYPE	491 UNSPECF SLDG WASTE	

DATE	ACTION	COMMENT
01-01-01	1000 CURRENT FACILITY	1 CKA: LIQUID AIR
02-15-81	2115 RECORDS SEARCH	1 FACILITY ID HIST SEARCH
06-20-81	2102 FACILITY DRIVE-BY	1 NOW LIQUID AIR ON SITE. ACETYLENE SLUDGE 2 POND ON PROPERTY.
01-27-82	2115 RECORDS SEARCH	1 LACE NO RECORD
02-03-82	2115 RECORDS SEARCH	1 RWQCB NO RECORD
07-15-82	2105 FINAL STRATEGY	1 SITE REFERRED: TO HWM3/ENF
05-21-87	2401 SITE SCREENING DONE	1 RATIONALE - REC SEARCH REQ 2 LIQUID AIR AT 8832 DICE ROAD ON CERCLAII 3 FOR PA SEE ASPIS #19280766


VACANT FIELD
LEGEND
9,000 LIQUID ARGON TANK
5,000 LIQUID NITROGEN TANK
11,000 LIQUID OXYGEN TANK
OXYGEN TANK
H.P. HELIUM TUBE TRAILER
H.P. HELIUM TUBE NEST
H.P. HELIUM TUBE NEST
NON FLAMMABLE CHEMICAL STORAGE AREAS
12 HALF-TON N2O TANK
30 TON CO2 TANK
FLAMMABLE STORAGE BUILDING
FLAMMABLE STORAGE CABINET
FLAMMABLE STORAGE CABINET
SPRAY BOOTH
EQUIPMENT SHED
17. ACETYLENE PLANT
18. UNDERGROUND ACETONE TANK
19. 12,410 GAL. PROPYLENE STORAGE TANK
20. LIME SLURRY STORAGE TANK
21. LIME SLURRY STORAGE TANK
22. LIME SLURRY STORAGE TANK
23. CARBIDE BIN STORAGE (ON FLATBED RAILCAR)
24. LIME PROCESSOR
25. LIME PILES
26. TRAILER (BREAK ROOM)
27. TRANSFORMER (NON-PCB) ON PAD
28. TRUCK SCALE
29. OXYGEN FILL STATION
30. HELIUM FILL STATION
31. FLAMMABLE AND NON-FLAMMABLE MATERIAL STORAGE
METAL WORKS FACILITY
STEEL COMPANY
CYLINDER FILL BUILDING
CYLINDER MAINTENANCE
OFFICE
GARAGE (SHOP)
NORTH ROOM
ACETYLENE PLANT
SOUTH ROOM
DOCK AREA
DOCK AREA
LIME
ENTRANCE ROAD
ELECTRIC GATE
OW VALVE
PROPOSED TANKS (3)
Contents of tanks not regulated. Reviewed for access only
N
Scale
Feet
0
60
120
SITE PLAN
LIQUID AIR CORPORATION
8832 DICE ROAD
SANTA FE SPRINGS, CALIFORNIA
FIGURE 1
DRAWN: SEPTEMBER 1990

DICE 02471

May 10, 1990

To the file of : Liquid Air, Inc.
8832 Dice Road
Santa Fe Springs, CA. 90670

From: Miguel Garcia, HMS III

SUBJECT: ADMINISTRATIVE OFFICE HEARING - SUMMARY HELD JUNE 7, 1990

On June 7, 1989 at approximately 2:00 p.m. an Administrative Office Hearing was held with Mr. Tom I. Barber, Plant Manager and David N. Simon, Manager regulatory affairs representative for Liquid Air Corporation of Santa Fe Springs. Liquid Air Corporation also had two gentlemen from Ensco Environmental Services, Inc., Wayne Nastri, and Walter Pouchot come in to the hearing to explain Liquid Air Corporation proposed plans to correct the violations. Erlinda Macalintal, Chris Johnson and Miguel Garcia from the County of Los Angeles, Department of Health Services were present to hear Liquid Air Corporation's explanation on how the violations occurred and what was being done to correct them.

Mr. Garcia began with explaining the hearing process and explained what violations were outstanding. After this introduction, representatives for Liquid Air Corp. were given the opportunity to respond. Mr. Simon began by giving a chronological explanation. According to Mr. Simon, in the Spring of 1988 Liquid Air Corp. hired IT Corporation, a hazardous waste clean-up company to package the waste and prepare it for transport to hazardous waste facility. In May 13, 1988, I.T.

Corporation proposed to Liquid Air Corporation to transport the waste to Casamilla Resources at a cost of $13,000 (Thirteen-thousand dollars). According to Mr. Simon the company policy was to go away from landfill disposal because of the liability problem, of having an agency such as the EPA (Environmental Protection Agency) under superfund recover the future cost of clean-up of a hazardous waste landfill.

In August 22, 1988, Mr. Simon continued, Liquid Air Corporation had become aware that the E.P.A. was investigating leakage at the two hazardous waste landfills in California. On August 8, 1988 I.T. Corporation was requested by Liquid Air Corporation to repackage the drums. Because of the landfill bans on hazardous waste the drums previously package were unacceptable to hazardous waste landfills in California. Liquid Air Corporation had to repackage to bring the drums up to standard. Liquid Air Corporation began looking for alternatives to disposing of the waste at a landfill.

On September 20, 1988 Liquid Air Corporation requested to incinerate the hazardous waste in a facility in Dear Park, Texas. Under the Freedom of Information Act Liquid Air Corporation received a bid from I.T. Corporation of $50,000 (Fifty-thousand dollars) to incinerate the waste.

On December 13, 1988 EPA number was requested (The EPA number is

used in conjunction with a uniform Hazardous Waste Manifest and must be used whenever hazardous waste is transported off site). On January 1989 Liquid Air requested a quote from ENSCO Environmental Services, Inc. on how much their company would charge to incinerate the waste. On March 22, 1989 Liquid Air Corporation received a bid from ENSCO Environmental in Arlington but samples had to be recovered from the waste. Liquid Air Corporation waited for the results of analysis and received them on September 20, 1989 from I.T. Corporation. The EPA number was received on March 29, 1989. On May 17, 1989 on May 17, 1989 approval for the removal of the waste was given by Liquid Air Corporation management.

Mr. Wayne Nastri described what had been done since to drums in the interim. On May 22, 1989 the drums were being staged, sampled and packaged for removal. Both Mr. Nastri and Mr. Pouchot described the ENSCO Environmental facility and the requirements for accepting waste.

Mr. Garcia reviewed some of the statement made by Mr. Simon. Mr. Garcia asked about the notice issued to Liquid Air Corporation by Sal Molleda from this Department and if these were the same drums. Both Mr. Barber and Mr. Simon acknowledge that they were. Mr. Garcia asked why it took Liquid Air Corporation so long to take care of the waste.

Mr. Garcia asked if they explored alternative methods of disposal

or alternative technologies. Both Mr. Barber and Mr. Simon didn't know. mr. Garcia asked all the representatives when would Liquid Air Corp. expected to have the drums remove and dispose. ENSCO Environmental Serviced representative Mr. Nastri and Mr. Pouchot explain the time frame when particular work would be performed and the job completed.

Mr. Johnson from the Department asked about the waste solvent and waste oil. Mr. Johnson wondered why these waste were not taken care of in a timely manner especially when they had record of doing it in the past. Mr. Barber and Mr. Simon had no response. mr. Johnson asked about the correction of the labelling, storage and disposal violations which could have been corrected but were not. Mr. Barber and Mr. Simon had no response.

MG:jc

COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS CONTROL PROGRAM
PROPOSITION 65 LOGGING AND PROCESSING FORM

Log # 01902

Received By: SHEAR [] Telephone X Mail

DATE & TIME RECEIVED HMCP: 04/06/88 :

DATE & TIME INCIDENT OCCURRED: / / :

DATE & TIME REPORTER OBTAINED INFORMATION: / / :

REPORTED BY: Agency: Santa Fe Springs Fire Department

D.G.E.: John Hunter Phone: 213-944-9713

NAME/DBA: Liquid Air Corporation

LOCATION OF DISCHARGE: 8832 Dice Road

CITY: Santa Fe Springs ZIP CODE: 90670

SUBSTANCE INVOLVED: Waste paint and solvents QUANTITY:

NARRATIVE ON INCIDENT: In years past, company employees dumped waste paint and solvents to the ground; surrounding and within the ground pit area. Contamination soil located in northwest area of northernmost pit. Contamination noticeable by green coloration.

ASSESSMENT OF IMPACT ON PUBLIC HEALTH AND SAFETY: (Unable to determine at this time.)

Number of Reported Illnesses 0 Number Receiving Medical Treatment 0

DGE KNOWS THE DISCHARGE WILL AFFECT THE PUBLIC HEALTH AND SAFETY: [] Yes [] No

DISPOSITION:	Agency*		Date
[] Proposition 65 Reportable		DGE Notification Sent	/ /
[] Request For Additional Information		Response Letter	/ /
X Determination of Non-Reportability	SFPFD	Response Letter	04/07/88
[] Disposition of Submitted Reports		Response Letter	/ /
[] Referral to Agency of Regulatory Authority		Response Letter	/ /
[] Investigation by HMCP	Assign To		/ /

STATUS: (Unknown.)

DICE 02476

1902

APR 6 1988

HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION FORM

HAZARDOUS MATERIALS CONTROL PROGRAM
FILE COPY

cc: Health Department
cc: Board of Supervisiors

Santa Fe Springs Fire Department
11300 Greenstone Ave.
Santa Fe Springs, CA 90670
(213) 944-9713

[ ] Your assisstance is requested
[XX] Health Dept. has been notified by phone
[XX] For your information

Complaint

Reported by: Dave Klunk Title Environmental Protection Inspector
Firm Name: Santa Fe Springs Fire Dept.
Address: 11300 Greenstone Avenue, Santa Fe Springs, CA 90670
Telephone: (213) 944-9713

Site Information

Date of Incident
Incident Location (name, if applicable) Liquid Air Corp.
(address or cross streets) 8832 Dice Road, Santa Fe Springs, CA 90670

Site Contact: Joe Weber/Tom Barber Title: Plant Manager Telephone: (213) 945-1383
Landowner, if known:

if unknown, circle one ---> private property public property

Surrounding land use (circle one) ---> open area residential area commercial area industrial area

Comments: Contaminated soil located in northwest area of northernmost pit. Contamination noticeable by green coloration.

Discharge Information

Description/Cause of Incident: In years past, company employees dumped waste paint and solvents to the ground; surrounding and within the ground pit area.

Material(s) Involved	Physical State	Volume	Additional Information
Waste paint and solvents	semi solid and solid	ground area 12'x25'	No "free product" on ground surface

Responsible Party, if known: name Liquid Air Corp. telephone
address

Environment Affected: (circle appropriate items)

Roadway Sewer Storm Drain/Channel Soil Air Other

Extent of comtamination Depth of contamination unknown. Surface contamination covers an area approximately 12' x 25'.

HAZ.MAT. CONTROL PROGRAM
PROPOSITION 65 REFERRAL
REFERRED TO D.O.E.
CONFIRMED INFORMATION NEEDED
ADDITIONAL INFORMATION NEEDED
NON REPORTABLE - DOES NOT MEET CRITERIA
CLARIFICATION NEEDED
REFERRED TO AGENCY OF AUTHORITY

#4

Number of persons reportedly injured: N/A

Medical Treatment Received: ____ yes N/A no

Additional Information: Approximately 50 55-gallon drums containing mostly waste oil, solvents, paints and acids stored in leaky, unlabeled drums for greater than 90 days. Company is working with I.T. Corp. on hazardous waste removal. Company failed to notify appropriate agencies of ground contamination.

DICE 02477

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012

Reply refer to:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-

April 7, 1988

Robert Wilson, Fire Chief
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670

Dear Mr. Wilson:

DETERMINATION OF NONREPORTABILITY
PROPOSITION 65 DISCLOSURE REPORT -- HMCP LOG # 01902

The Los Angeles County Department of Health Services Hazardous Materials Control Program has been designated to receive and review all reports submitted by designated government employees (DGE's) to determine if they meet the prerequisite disclosure provisions of the California Health and Safety Code, Section 25180.7 (b) (Proposition 65, Section 4). The statute requires disclosure when the designated government employee knows that an illegal discharge or threatened illegal discharge of hazardous waste is likely to cause substantial injury to the public health or safety. The statute also dictates that disclosure is not required under special provisions of the law.

Our program has received a disclosure report from your agency regarding an illegal discharge or threatened illegal discharge of hazardous waste (see attached report). We have reviewed the report and, in our opinion, it does not meet the required provisions for disclosure for the following reasons:

[] The discharge is already public knowledge within the location affected.
[] The discharge is subject to ongoing criminal investigation which could be adversely affected by public disclosure.
[] The discharge was made in compliance with or under permit or approval of an appropriate regulatory agency.
)(Based on the information provided, the discharge is not likely to cause substantial injury to the public health or safety because of the location of the discharge, the identification of the material, the quantity of the material identified, and/or satisfactory mitigation of the discharge.
[] Disclosure for the discharge has been previously made.
[] The discharge occurred prior to January 1, 1987, when the provisions of the law requiring disclosure reporting became effective.
[] The report does not contain sufficient information to enable further investigation by our Department or any other agency which may have responsibility for the investigation.

A copy of your report is attached, the original report will be maintained in this office for future reference. If you have any questions please contact the Hazardous Materials Control Program Proposition 65 Coordinator at (213) 744-3223.

Bonnie Shear for

Anastacio G. Medina, Chief
Hazardous Materials Control Program

Attachment

HAZARDOUS MATERIALS CONTROL PROGRAM

TELEPHONE REQUEST

Log # (yrnnnn) 904360 Date [ ]Emergency Response [ ]Illgl Storage

Received: By BENJAMIN 12/19/90 [ ]Illgl Disp Onsite [ ]Clean Up

Log Entry: By BENJAMIN 12/19/90 [ ]Illgl Disp Offsite [ ]P. H. L.

Name: LIQUID AIR BURDETTE OXYGEN Phone:

Address: 8832 DICE ROAD City: SFS

Substance: UNKNOWN "SLUDGE" SUBSTANCE Zip:

Scope: DIGGING SLUDGE SUBSTANCE FROM PIT AND DUMPING IT IN ANOTHER. ON-GOING AT TIME OF CALL

Status: SOURCE OF INFORMATION IS SFS ENVIRONMENTAL DIRECTOR : LEIGH DE SANTIS 213-868-0511 ext 288

Section Assign To: [ ]SGV [ ]SFV [ ]SE [ ]SB [ ]C [ ]M [ ]ER [ ]OH [ ]ENF [ ]SM Date: / /

Inspector Assign To: Assign By Date: / /

Service Requested By Address 1405 N. SAN FERNANDO BL Phone

MEMO HERNANDEZ STATE HEALTH DEPT BURBANK CA 818-567-3024

12-19-90 - Approx 4:00 pm Received COMPLAINT FROM MARIO BENJAMIN - Hand deliver - Concern About the Need for inspection Asap.

12-19-90 - 4:45 pm - telephone discussion c̄ Leigh De Santis for purpose of receiving more info. - Stated Fire Dept. and Environmental (Her dept) out at the site. Sample taken 12-18-90 - of discharge to ground + pit. She said there no immediate urgency - site been operation for years she feels that everything is being take care of at this time, what to know if we had any info - to get back c̄ her tommorrow or friday. Mean time will await lab result. - most likely to make an inspection the 1st of the year.

12-21-90 - T.C. c̄ Leigh De Santis - told her could not find any in our file under "liquid air" - she forgot to mention previous name Burdette Oxygen - told her we would wait for lab results that the City had taken their plan to make a thorough inspection of facility probably at 1st of year.

HMCP (1/89)

DICE 02480

Calcium Carbonate Pit

Acetylene
Medical gases 12.5
sample 12-18-90
LABS - sample submitted 12-19-90

HAZARDOUS MATERIALS CONTROL PROGRAM

TELEPHONE REQUEST

Log # (yrnnnn) 904355 Date [ ]Emergency Response [ ]Illgl Storage

Received: By GPM 12/19/90 [ ]Illgl Disp Onsite [ ]Clean Up

Log Entry: By GPM 12/19/90 [X]Illgl Disp Offsite [ ]P. H. L.

Name: LIQUID AIR Phone: (213) 945-1383

Address: 8832 DICE RD City: SANTA FE SPRINGS

Substance: WASTE CHEMICALS Zip: 90670

Scope: WASTE WATER WITH CHEMICALS IS BEING DUMPED INTO A POND IN THE REAR OF PROPERTY. (ALL RR TRACKS

Status: STEVE (OPERATION SMGR)

Section Assign To: [ ]SGV [ ]SFV [ ]SE [ ]SB [ ]C [ ]M [ ]ER [ ]OH [X]ENF [ ]SM Date: 12/19/90

Inspector Assign To: _____ Assign By _____ Date: / /

Service Requested By Address Phone

STEVE KOESPER FIRE (SFS) (213) 944-9713

PLEASE CALL WITH RESULTS. ✓

12-20-90 - T.C. Steve Koesper - advise our plan of action see Montecino complaint # 904360. for details

HMCP (1/89)

DICE 02482

LIQUID AIR CORPORATION

2121 N. California Blvd.
Walnut Creek, CA 94596

Telephone: (415) 977-6500

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO: P-566 422 577

August 1, 1989

Mr. Miguel Garcia
Hazardous Waste Control Program
Occupational Health Division
Environmental Management
2615 South Grand Ave., 6th Floor #607
Los Angeles, CA 90007

SUB: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

RE: Attached August 1, 1989 ENSCO Status Report

Dear Mr. Garcia:

This is to advise you that ENSCO has completed the removal of the waste drums from our Santa Fe Springs facility on July 28, 1989, per the attached report, and pursuant to the ADMINISTRATIVE HEARING document dated 6/7/89.

We are presently waiting for pertinent manifest and other related documents to be sent to this office, after which we will forward copies thereof to you, with transmittal letter.

Thank you for your cooperation in this matter.

Very truly yours,

David N. Simon
Manger Regulatory Affairs

Att:

DNS/pr

cc: Mr. T Barber - Liquid Air Corp.
Mr. Wendell Francisco
Hazardous Materials Specialist
Dept. of Health Services
Toxic Substances Div.
107 S. Broadway, Room 7011
Los Angeles, CA 90012

dns/1/172-89

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

Southern California District Office

17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.

a subsidiary of environmental system company

Mr. Dave Simon
Liquid Air Corporation
2121 N. California Blvd.
Walnut Creek, CA 94596

RE: Liquid Air Corp.
8832 Dice Road
Santa Fe Springs, CA 90670

AUG 1 1989
SAFETY DEPARTMENT

Dear Mr. Simon:

Ensco Environmental Services has completed the removal of the Waste Drums on July 28, 1989 from your Santa Fe Springs facility.

Recyclers

California Manifest #88327960 to Oil & Solvent Process Co.
15 Drums

California Manifest #88327961 to Kinbursky Bros. Supply
150 lbs. of Automobile Batteries

California Manifest #87919684 to PRC Inc.
14 Drums of oil containing wastes

Incinerators

Arkansas Manifest #AR274900 to ENSCO Environmental Systems
76 Drums of various Liquid Waste (Profiles Attached)

Arkansas Manifest #AR403899 to ENSCO Environmental Systems
2 Drums of Liquid Waste and 5,650 pounds of Solid Waste - mainly debris and crushed drums

South Carolina Manifest # to Thermo Kem Inc.
10 Drums of Monkey Dust spent

Treatment

California Manifest #88327962 to Oil Process Inc. (Rollins Environmental)
6 Drums of Potassium Hydroxide Sludge
4 Drums of Calcium Chloride

California Manifest #88327963 to Appropriate Technologies II via Crosby and Overton
5 Drums of Corrosive Wastes

Landfill

California Manifest #88327964 to Kettleman Hill (Chemical) Waste Management

3 Drums of various landfillable material only

A copy of all the profiles and manifests has been given to Tom Barber. If you have any questions, please feel free to contact us at (714) 756-8666.

Sincerely,

W. Pouchot

Walt Pouchot
Chemical Services Manager

REQUEST FOR: I-NUMBER [X] DATA CHANGE [ ]

DO NOT TERMINATE I# 225-1H
SEE BELOW

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. I-225-1H

Name LIQUID AIR INC.

Address [illegible] Zip Code

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name M.G. BURDETT GAS PROD.

Address 8232 S. DICE Rd. Zip Code 90670

Region-City 1H Status + Permit No.

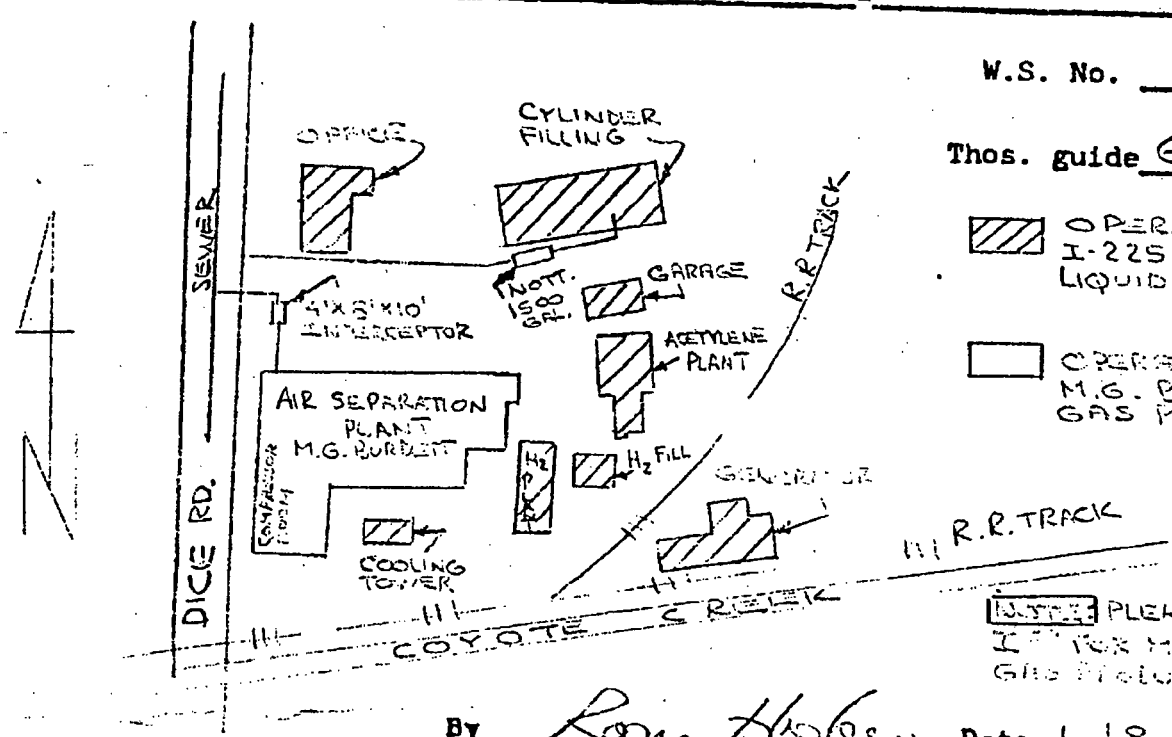
Classif. 127 SMD 0860.15 Disp. Code 1

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets &

W.S. No.

Thos. guide 61 B-1



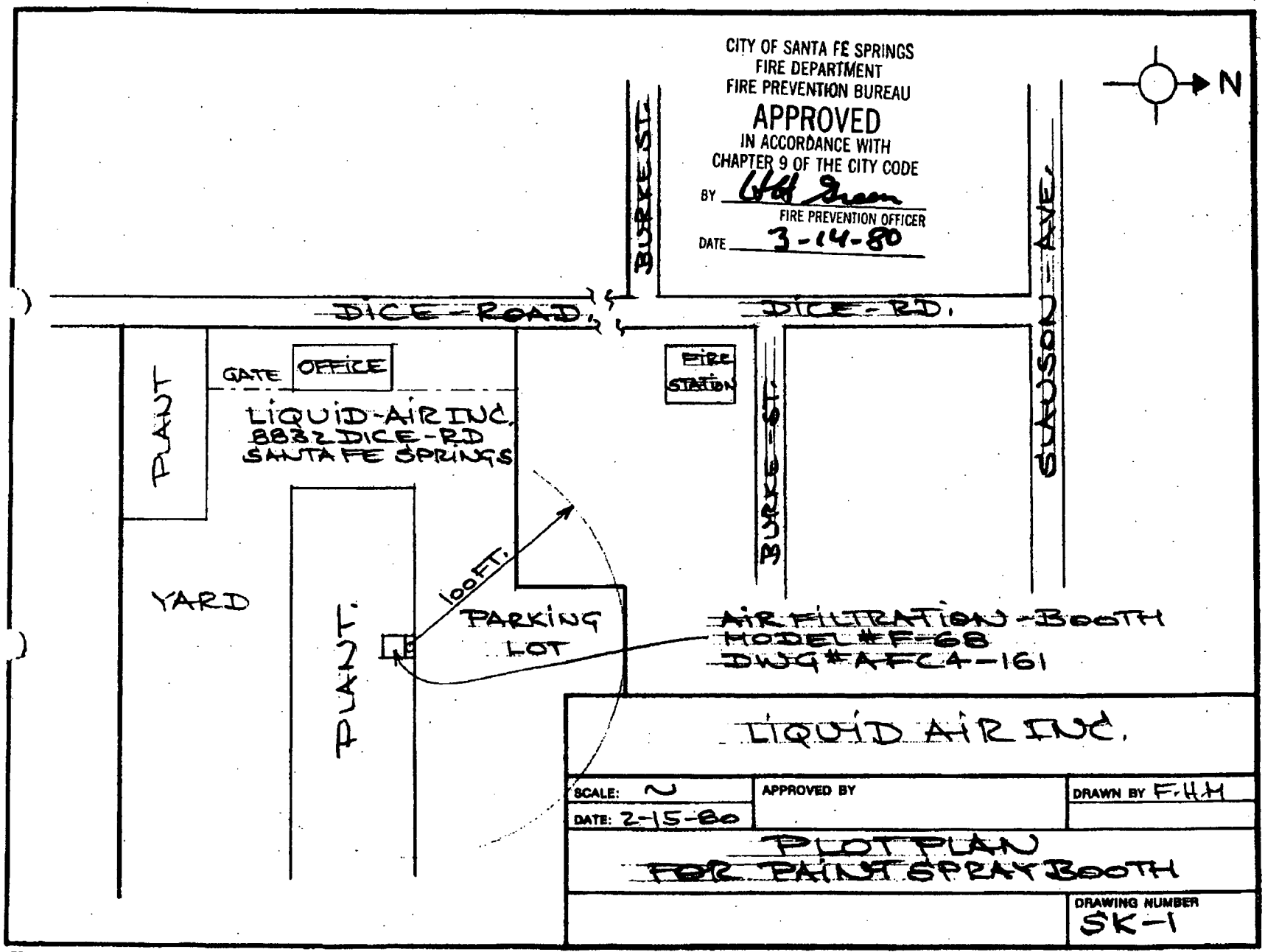
[ ] OPERATION UNDER I-225-1H LIQUID AIR INC.

[ ] OPERATION UNDER M.G. BURDETT GAS PROD. CO.

NOTE: PLEASE MAKE NEW I# FOR M.G. BURDETT GAS PRODUCTS CO.

By Ron Holden Date 1-18-82

DICE 02486



TELEDYNE POST 18AB-01E

REQUEST FOR: I-NUMBER [X] DATA CHANGE [ ]

DO NOT TERMINATE I# 225-1H
SEE BELOW

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. I-225-1H

Name LIQUID AIR INC.

Address 8832 S. DICE Rd. Zip Code

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name M.G. BURDETT GAS PROD.

Address 8832 S. DICE Rd. Zip Code 90670

Region-City 1H Status + Permit No.

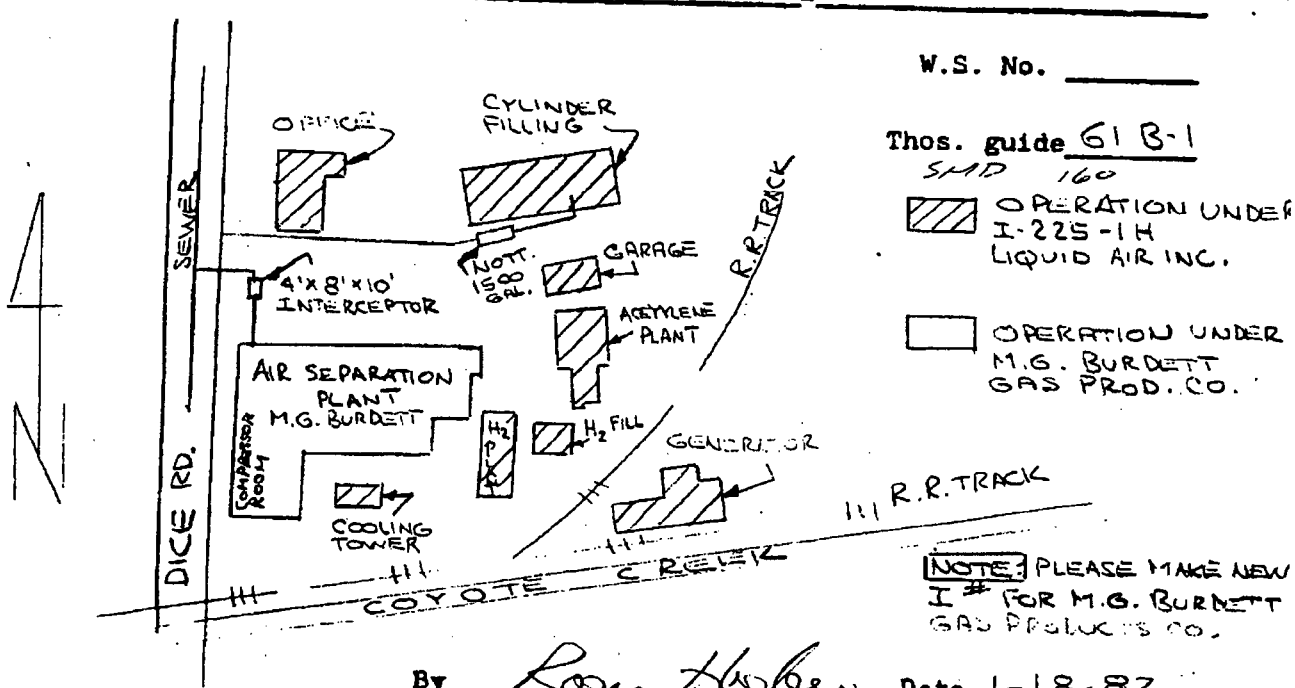
Classif. 127 SMD 0860.15 Disp. Code 1

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets _____ & _____

W.S. No. _____

Thos. guide 61 B-1
SMD 160



By Roger Hyden Date 1-18-82

PROCESSING

ile folder & indexing by _____

lotted by _____

ity or unincorporated _____

162

Rev 2/7/84

INTERIM
STORM WATER POLLUTION
PREVENTION PLAN

LIQUID AIR CORPORATION
8832 DICE ROAD
SANTA FE SPRINGS, CA

Prepared by:

Kennedy/Jenks Consultants
17310 Red Hill Avenue, Suite 220
Irvine, CA 92714
(714) 261-1577

K/J 924004.02
February 1993

INTRODUCTION

This interim Storm Water Pollution Prevention Plan has been developed to prevent the discharge of any lime containing storm water from the Liquid Air site at 8832 Dice Road, Santa Fe Springs, California. The Plan is not being developed to meet the requirements of a Storm Water Pollution Prevention Plan as defined by the NPDES General Permit, but is being prepared for submittal to the California Department of Fish and Game for review and approval. Upon their approval it is requested that Liquid Air be allowed to remove the plug from this site's one and only storm drain.

The Plan describes specific procedures which are currently being implemented to prevent run-off, that may have come in contact with lime, from flowing directly offsite or through the existing storm drain line which discharges into the City of Santa Fe Springs drain ditch (Coyote Creek) south of the existing Southern Pacific Railroad. The Plan will be kept in place until the lime pits have been closed and a permanent containment wall is constructed around the lime slurry holding tanks.

In addition to the installation of features to physically prevent run-off from the lime pit area, Liquid Air is also implementing a number of procedures to be followed on a regular basis to assure that the run-off prevention system is properly functioning and that no other potential spills of lime slurry can occur on or from the site.

SITE INFORMATION

The site consists of approximately 3 acres of paved or covered area and 2 acres of lime storage area. The lime storage area consists of two pits which comprise 75% of the area. The pits are 22 and 12 feet deep and are surrounded by native soil at the sites predominate elevation. It is the purpose of this pollution prevention plan to prevent storm water from flowing offsite from the lime pit and lime holding tank areas. Reference the attached Figure 1.

The majority of the area around the lime pits slopes from the property line into the pits, therefore, storm water that falls in these sloped area will flow into the pits. The area on the west side of the lime pits slopes primarily to the east, back into the pits, except for the southwest side. To prevent run-off from this area onto the paved area, sand bagging methods will be applied to direct flow from the lime pit area back into the smaller lime pit.

Just west of the lime pit area are the lime slurry holding tanks. These tanks will be eventually surrounded with a concrete wall for containment of spills from the tanks. Until this wall is constructed the tanks will be surrounded with a containment berm constructed with sand bags.

The plant is operated from 10 pm on Sunday through 10 pm on Friday. Therefore, the site can be monitored continuously for all but 48 hours during the week. As presented under responsibilities of the Pollution Prevention Team, an individual has been assigned

DICE 02491

to monitor the plant site during a storm event which may occur during these 48 hours. During operational hours, responsibility for maintenance, inspection, sampling and repair of the pollution prevention facilities is assigned as indicated on the Team roster.

STORM WATER POLLUTION PREVENTION PROCEDURES

Procedures for establishing plan responsibilities, conducting daily inspections and monitoring storm water during a storm event are being implemented as follows:

Pollution Prevention Team:

The team of individuals responsible for this pollution prevention plan and their individual assignments are as follows:

Leader:_____ Title:_____

Office Phone:_____

Responsibilities:_____

_____

Members:

(1)_____ Title:_____

Office Phone:_____

Responsibilities:_____

_____

(2)_____ Title:_____

Office Phone:_____

Responsibilities:_____

_____

(3)_____ Title:_____

Office Phone:_____

Responsibilities:_____

_____

(4)_____ Title:_____

Office Phone:_____

Responsibilities:_____

_____

Daily Inspections:

Daily inspections will be conducted to assure that the pollution prevention system is in good condition and adequate to prevent storm water from the lime pit area and lime holding tanks from reaching the storm drain system or from flowing offsite. To facilitate that inspection the attached checklist and report will be utilized during each inspection and retained on file for reference. Any deficiencies will be noted and repaired immediately.

In addition to inspecting the storm water pollution prevention facilities, all piping and valves between the acetylene generation building and the lime slurry holding tanks will be inspected for leakage. Any deficiencies in this system will also be noted and repaired immediately.

Storm Water Sampling:

During a storm event, the system and the outfall into Coyote Creek will be observed. Sampling will be conducted in accordance with the NPDES Storm Water Discharge General Permit requirements using the attached Field Data Sheet.

STORM WATER POLLUTION PREVENTION

PHYSICAL CONTAINMENT FEATURES

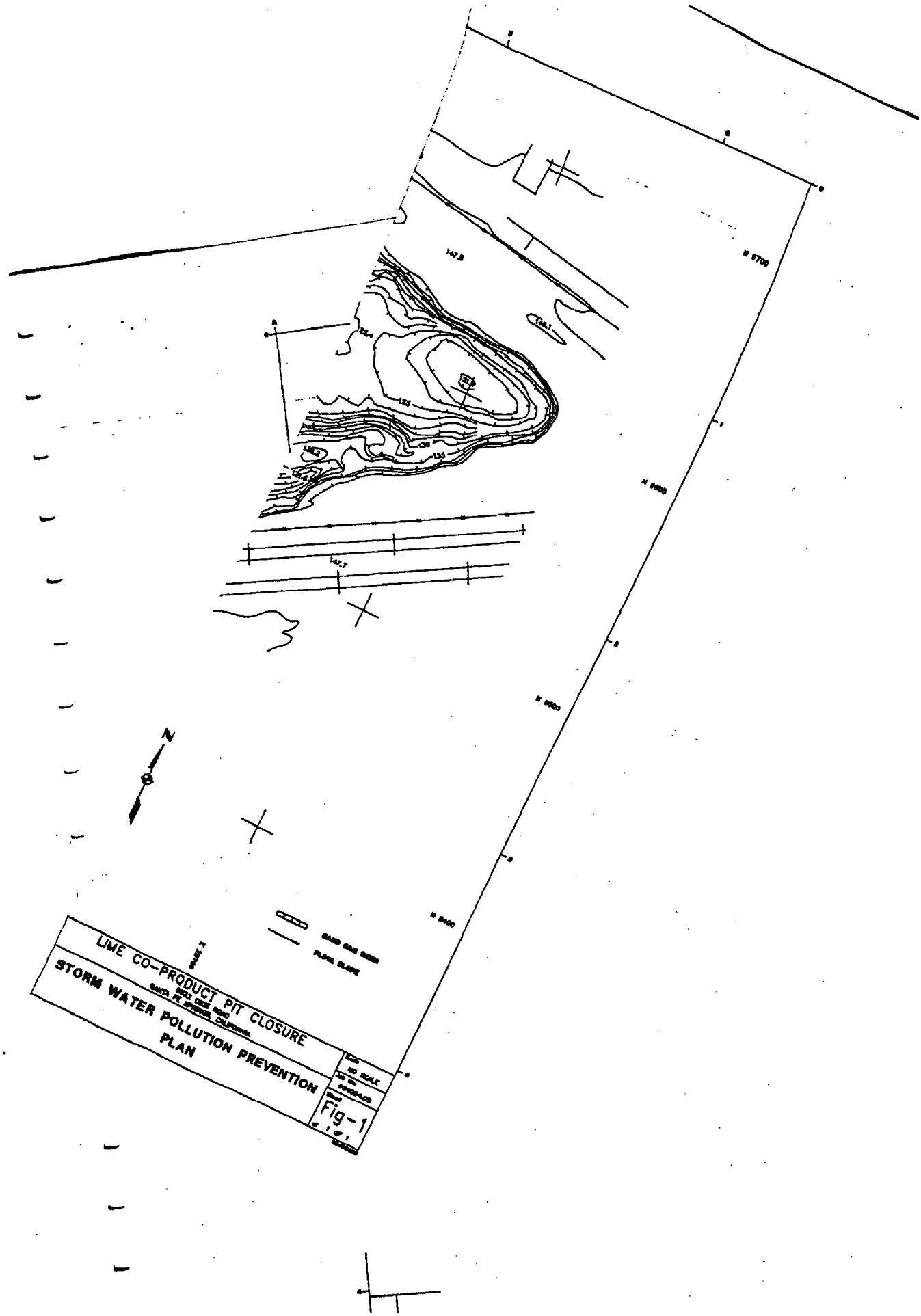
Prior to closure of the lime pits and during the closure process, the following actions will be taken. Please refer to Figure 1 for the location of these improvements.

1. Place a sand bag berm along the southwest side of the lime pit area to direct any run- off from the lime area back into the pits and thereby prevent run-off from flowing to the west and into the existing catch basin.

2. Place a sand bag berm around the lime slurry holding tanks. A permanent containment wall will be completed as soon as possible to replace the sand bags. The sand bag berm will be two bags wide at the bottom and four bags high.

3. Provide continuous hand cleanup of any material that may drop from the trucks or equipment accessing and exiting the lime pit areas during closure.

DICE 02494


N
LIME CO-PRODUCT PIT CLOSURE
STORM WATER POLLUTION PREVENTION
PLAN
NO SCALE
Fig-1

DICE 02495

INTERIM
STORM WATER POLLUTION
PREVENTION PLAN

LIQUID AIR CORPORATION
8832 Dice Road
Santa Fe Springs, CA

K/J 924004.02
February 1993

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

July 19, 1993

Mr. Michael Delaney
Head District Attorney
Environmental Crimes Division
Hall of Records Room 340
320 West Temple Street
Los Angeles, CA 90012

Dear Mr. Delaney,

REQUEST FOR COMPLAINT: Liquid Air Corporation
8832 Dice Rd.
Santa Fe Springs, CA 90670

This Department has investigated the subject company. I have enclosed a copy of the report for your information. We have found that the above company did illegally dispose hazardous waste.

Pursuant to the authority vested in this Department by the California Health and Safety Code, Section 25180, the District Attorney of the County of Los Angeles is requested to file a complaint against the above mentioned company and/or any other related parties.

If you have any questions, please contact Marty Kasman at (213) 890-4045.

Very truly yours,

WILLIAM JONES, M.S., MANAGER
SPECIAL OPERATIONS SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:mk

County of Los Angeles • Fire Department
Prevention Bureau
Hazardous Waste Control Program

REPORT OF INVESTIGATION SUMMARY

Name of Suspect(s)/Defendant(s)/AKA(s) **Liquid Air Corporation** **Bryan E. Leger, Jr.**	*Date* **February 9, 1993** *Date of Investigation* **January 27, 1993** *Log#* **930201-019** *Investigating Officer(s)* **Marty Kasman** **Jim McCarron**
Business Address **8832 Dice Rd. Santa Fe Springs, CA 90670**	*Phone* **(213) 890-4045**

Location of Violation(s)
8832 Dice Rd. Santa Fe Springs, CA 90670

Business Structure and Description
A Delaware corporation

Service or Product Produced
acetylene manufacturer

Charging Section
California Health & Safety Code Section 25185.5(b), 25515, 25190 (22CCR66265.51);
Fish and Game Section 5650;
Clean Water Act Section 13387;
Penal Code 370

Summary of Violation(s)
Said suspects did knowingly and unlawfully dispose hazardous waste to points not authorized for such disposal; failure to report a hazardous materials release; failure to maintain a Contingency plan; disposal of a substance which is deleterious to fish, plant, and bird life; discharge of pollutants to navigable waters of the United States; causing a public nuisance

Type of Waste
Corrosive (calcium hydroxide - lime)

Defendant(s) Previous Record
unknown

Reviewed By	*Date*

SUSPECT LIST

Liquid Air Corporation
Bus: 8832 Dice Rd.
Santa Fe Springs, CA 90670
(310) 945-1383

Byran Evert Leger, Jr.
Res: 33162 Leeward Way
Lake Elsinore, CA 92350
(909) 678-7331
Bus: 8832 Dice Rd.
Santa Fe Springs, CA 90670
(310) 945-1383
LA DL#: 003238750
SSN#: 439-43-5633
DOB: 12/6/65
Sex: male
Hair: brown
Eyes: brown
Height: 5-07
Weight: 145

David Robert Mixon
Res: 9171 Heather St.
Alta Loma, CA 91701
Bus: 1500 W. 9th St.
Upland, CA 91785
(714) 982-982-8803
CA DL#: N5578057
DOB: 7/3/59
Sex: male
Hair: blond
Eyes: blue
Height: 6-03
Weight: 200

AGENCY WITNESS LIST

Marty Kasman, Hazardous Materials Specialist II
Jim McCarron, Hazardous Materials Specialist II
Mike Lohnes, Hazardous Materials Specialist II
Patrick O'Donnell, Hazardous Materials Specialist II
Nosa Omoruyi, Hazardous Materials Specialist II
Gerald Munoz, Hazardous Materials Specialist III
Samir Ibrahim, Hazardous Materials Specialist III

Los Angeles County Fire Department
Prevention Bureau
Health Hazardous Materials Division
5823 Rickenbacker Rd.
Commerce, CA 90040
(213) 890-4045

Joe Pecsi, Lieutenant

State of California Department of Fish & Game
Region 5
Wildlife Protection
330 Golden Shore, Suite 50
Long Beach, CA 90802
(310) 590-5107

Steve Carr, Laboratory Supervisor

San Jose Creek Water Quality Laboratory
1965 Workman Mill Rd.
Whittier, CA
(213) 699-7411

DICE 02500

VIOLATIONS INVESTIGATED

On January 27, 1993, the following violations of the California Health and Safety Code, Division 20, Chapter 6.5, Article 8 of the Hazardous Waste Control Law were observed by the investigating officers:

H & S Codes Section 25189.5(b): Said defendants did knowingly and unlawfully dispose or cause the disposal, or reasonably should have known that he/she was causing the disposal of hazardous waste to points or locations not authorized for such disposal, to wit: hazardous waste (corrosive) was discharged to the ground surface at 8832 Dice Rd. Santa Fe Springs, California.

H & S Codes Section 25515: Said defendants did knowingly and unlawfully fail to, upon discovery, immediately report any release or threatened release of a hazardous material to the administering agency pursuant to section 25507, to wit: corrosive lime was discharged to the storm drain and flood control channel at 8832 Dice Rd. Santa Fe Springs, California and not reported by the responsible party.

H & S Section 25190: Said defendants did knowingly and unlawfully violate the following sections as set forth in California Code of Regulations, Title 22:

> **Section 66265.51:** Said defendants did knowingly and unlawfully fail to maintain a Contingency Plan, to wit: said defendants failed to provide the Investigating Officers with a copy of a written Contingency Plan pursuant to the requirements of Title 22, Chapter 15, Article 4.

On January 27, 1993, the following violations of the California Fish and Game Code were observed by the investigating officers:

F & G Code Section 5650: Said defendants did knowingly and unlawfully deposit, to permit to pass into, or place where it can pass into the waters of the State a substance or material deleterious to fish, plant life, or bird life, to wit: corrosive lime was discharged into a tributary of Coyote creek.

On January 27, 1993, the following violations of the California Water Code, Chapter 5.5, Article 6 of the California Porter-Cologne Water Quality Act were observed by the investigating officers:

CWA Section 13387: Said defendants did knowingly and unlawfully discharge pollutants to navigable waters of the United States, to wit: corrosive lime was discharged into a tributary of Coyote creek.

On January 27, 1993, the following violations of the California Penal Code, Title 10 of Crimes Against the Public Health and Safety were observed by the investigating officers:

PC Section 370: Said defendants did knowingly and unlawfully cause a public nuisance which is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property by an entire community or neighborhood, or by any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake river, bay, stream, canal, or basin, or any public park, square, street or highway, to wit: corrosive lime was discharged into a tributary of Coyote creek.

SUMMARY OF EVENTS

On January 23, 1993 at approximately 2020 hours Hazardous Materials Specialists from the Los Angeles County Fire Department Health Hazardous Materials Division responded to Liquid Air Corporation at 8832 Dice Rd., Santa Fe Springs, California.

Investigation revealed Liquid Air manufactures acetylene. Acetylene is produced by adding water to calcium carbide. The result is acetylene and calcium hydroxide or lime. Acetylene is bottled and sold as welding gas. The lime slurry is pumped to two large unlined earthen pits located on the southeast corner of the property. The lime pits are approximately 250' long, 100' wide, 25' deep and approximately 100' long, 80' wide, and 25' deep. Liquid from the slurry is allowed to evaporate and migrate into the ground leaving lime on the bottom. The dried lime is then removed, dried and sold commercially.

Liquid Air was discontinuing the use of the lime pits. The lime pits were to be filled in with top soil from another location and capped with concrete for use as a parking lot. The lime slurry was going to be stored in above ground storage tanks. The closure of the lime pits started on or about Wednesday January 20, 1993 by Advanco Constructors, Inc. Between December 25, 1992 and January 1, 1993 the weather was rainy. The lime pits filled with rain water causing a delay in construction. Liquid Air management ordered the pumping out all liquids from both lime pits into the storm drain inlet located adjacent to acetylene plant.

An open culvert runs from west to east along the south side of the Liquid air. The culvert is part of the storm drain system. An underground storm drain outfall opens into the storm drain directly across from Liquid Air Corp. at approximately the center of the southern property line. Investigation of the release revealed Liquid Air discharged the corrosive lime into the culvert. A Notice of Violation and Order to Comply was issued.

On January 27, 1993 at approximately 1830 hours Hazardous Materials Specialists from the Los Angeles County Fire Department Health Hazardous Materials Division responded a second time to Liquid Air Corporation at 8832 Dice Rd., Santa Fe Springs, California.

Investigation revealed Liquid Air had a second release of corrosive lime into the culvert. The cause of the release was an employee hosing down lime residue from the ground into the storm drain inlet located on Liquid Air's property. Samples and photographs were taken. A Notice of Violation and Order to Comply was issued.

SAMPLE SUMMARY

The following are the results of the samples taken on January 27, 1993 by the Los Angeles County Fire Department, Prevention Bureau, Health Hazardous Materials Division at 8832 Dice Rd. Santa Fe Springs and analyzed by the Los Angeles County Sanitation District San Jose Creek Water Quality Laboratory. All samples were taken, transported, and maintained under chain of custody.

Sample #	JMc012793-1A	JMc012793-2A	JMc012793-3A	JMc012793-4A	JMc012793-5A	JMc012793-6A
Lab #	SJE57471	SJE57470	SJE57469	SJE57468	SJE57467	SJE57466
Location	Creek bed 8 ft. east of Dice Rd.	Storm drain inlet at south east corner of acetylene plant	Creek bed bottom sludge at outfall pipe	Creek bed bottom liquid 3 ft inside of outfall pipe	Sump/slurry basin on south side of acetylene plant	Soil sample from bottom of large lime pit
Description	Mud & water background sample	Mud & water	Sludge	Liquid	Liquid	Sludge
Result	pH 7.44	pH 11.9	pH 12.3	pH 12.3	pH 12.3	pH 12.6

STATE STANDARDS

Pursuant to California Code of Regulations, Title 22, Chapter 11, Section 66261.22(a)(1), any waste is corrosive and hazardous if it has a pH less than or equal to 2 or greater than or equal to 12.5.

Pursuant to California Code of Regulations, Title 22, Chapter 11, Article 3, Section 66261.24(a)(6), any waste is toxic and hazardous if it has an acute aquatic 96-hour LC_{50} less than 500 milligrams per liter.

LOS ANGELES COUNTY FIRE DEPARTMENT
PREVENTION BUREAU
HEALTH HAZARDOUS MATERIALS DIVISION

Report of Investigation

REPORT PREPARED BY:	DATE:	LOG NUMBER:
Marty Kasman, HMS-II	February 2, 1993	930201-93-019

SUSPECT NAME/ADDRESS:	DATE OF INVESTIGATION:
Liquid Air 8832 Dice Rd. Santa Fe Springs, CA 90607	January 28, 1993

SITE INVESTIGATION

On January 27, 1993 at approximately 1900 hours Hazardous Materials Specialists Patrick O'Donnell and Michael Lohnes from the Los Angeles County Fire Department Health Hazardous Materials Division responded to Liquid Air Corporation at 8832 Dice Rd., Santa Fe Springs, California. The investigators responded to a complaint Liquid Air Corp. was discharging lime into the storm drain system located on the south side of the property.

Investigation revealed Liquid Air manufactures acetylene. Acetylene is produced by adding water to calcium carbide. The result is acetylene and calcium hydroxide or lime. Acetylene is bottled and sold as welding gas. The lime slurry is pumped to two large unlined earthen pits located on the southeast corner of the property. The lime pits are approximately 250' long, 100' wide, 25' deep and approximately 100' long, 80' wide, and 25' deep. Liquid from the slurry is allowed to evaporate and migrate into the ground leaving lime on the bottom. The dried lime is then removed, dried and sold commercially.

An open culvert runs from west to east along the south side of the Liquid air. The culvert is part of the storm drain system. An underground storm drain outfall opens into the storm drain directly across from Liquid Air Corp. at approximately the center of the southern property line. The culvert had a visible contaminate in the slow moving water and along the culvert banks. The contaminate was a grey color and tested corrosive for field pH. The water in the culvert was clear and neutral upstream (west) of the storm drain outfall. The water in the culvert was cloudy, grey and corrosive downstream (east) of the storm drain outfall. The underground storm drain outfall was traced, with the assistance of Liquid Air employees, to an inlet located within Liquid Air Corp. property. The inlet was located adjacent to the sump / slurry basin on the south side of the acetylene plant.

On January 27, 1993 at approximately 2200 hours Hazardous Materials Specialists Marty Kasman and Jim McCarron interviewed Bryan Leger, Project Manager. Consent to inspect Liquid Air Corp. was given by Bryan Leger. Leger said Liquid Air was discontinuing the use of the lime pits. Leger explained the lime pits were to be filled in with top soil from another location and capped with concrete for use as a parking lot. The lime slurry was going to be stored in above ground storage tanks. The closure of the lime pits started on Wednesday January 20, 1993 by Advanco Constructors, Inc. Between December 25, 1992 and January 1, 1993 the weather was rainy. The lime pits filled with rain water causing a delay in construction. Leger ordered the pumping out all liquids from both lime pits into the storm drain inlet located adjacent to acetylene plant.

Kasman and McCarron collected six (6) samples (excluding splits). McCarron collected the samples with the assistance of Kasman. Kasman photographed the samples. McCarron issued a Notice of Violation and Order to Comply to Leger. Leger accepted the Order and split samples.

A review of the Los Angeles County Fire Department Prevention Bureau Health Hazardous Materials Division indicated Liquid Air has had several hazardous material emergency incidents. On April 6, 1988 the Department received a Proposition 65 report indicating Liquid Air employees were disposing waste paint and solvents to the ground. City of Santa Fe Springs inspectors observed contaminated soil located in the northwest area of northern most pit. Contamination was noticed by green coloration. The depth of the contamination was unknown however surface contamination covered approximately a 12' x 25' area. Additionally the inspectors found approximately fifty fifty-five gallon drums containing mostly waste oil. Hazardous waste was stored in leaky unlabeled containers for greater than ninety days.

On December 19, 1990 this Department received a complaint from State Department of Health Services indicating Liquid Air was removing a caustic sludge from one pit and transferring the sludge to another pit. The State collected samples during their site inspection. No action was taken by this Department due to State activity. On January 11, 1991 this Department received a request by Santa Fe Springs Fire Department to evaluate laboratory results for samples collected on December 19, 1990. The samples were hazardous waste by corrosivity characteristic.

On January 18, 1991 approximately 2-3 gallons of a petroleum product was dumped onto the soil in the soil channel adjacent to 8832 Dice Rd., Santa Fe Springs. A small amount of oil was evident in the water. The City of Santa Fe Springs paid for the site mitigation. No suspect was clearly identified.

On January 23, 1993 a caustic material was observed in the flood control channel adjacent to Liquid Air. The source of the contamination was traced to Liquid Air. The white chemical waste identified as calcium hydroxide. Milton Bird, plant manager for Liquid Air, accepted responsibility for the release and received a Notice of Violation and Order to Comply from this Department.

LOS ANGELES COUNTY FIRE DEPARTMENT
PREVENTION BUREAU
HEALTH HAZARDOUS MATERIALS DIVISION

Report of Investigation

REPORT PREPARED BY:	DATE:	LOG NUMBER:
Marty Kasman, HMS-II	February 2, 1993	930201-93-019

SUSPECT NAME/ADDRESS:	DATE OF INVESTIGATION:
Bryan Leger, Project Manager Liquid Air 8832 Dice Rd. Santa Fe Springs, CA 90607	January 27, 1993

On January 27, 1993 at approximately 2200 hours Hazardous Materials Specialists Marty Kasman and Jim McCarron interviewed Bryan Leger, Project Manager. Leger said Liquid Air was discontinuing the use of the lime pits. Leger said he was brought in by the corporate office to supervise the closure of the lime pit. Leger explained the lime pits were to be filled in with top soil from another location and capped with concrete for use as a parking lot. The lime slurry was going to be stored in above ground storage tanks.

Leger said the lime pits still had a considerable amount of lime in them. Liquid Air did not intend on selling the remaining lime in the bottom of the pits. Leger said Liquid Air does not have a need for the lime sludge plans on leaving the lime sludge in the bottom of the pit.

Leger told Kasman and McCarron that the closure of the lime pits started on Wednesday January 20, 1993. Advanco Constructors, Inc. (1500 W. 9th St. Upland, CA 91785 (714) 982-8803) was hired to perform the construction work. Leger said the lime pits were empty prior to December 25, 1992. Between December 25, 1992 and January 1, 1993 the weather was rainy. The lime pits filled with rain water causing a delay in construction. Leger told Kasman and McCarron that the lime is not a hazardous substance and that the addition of rain water increased the volume of the nonhazardous lime. Leger said he telephoned Bruce Coolsey, Advanco Project Manager, and requested Advanco to de-water the lime pits. Coolsey relayed the request to Dave Mixon, foreman for Advanco. Mixon met with Leger to determine what Liquid Air required. Leger told Mixon to pump out all liquids from both lime pits into the storm drain inlet located adjacent to acetylene plant. Leger said Mixon was the only employee participated in the de-watering of the lime pit. Leger gave Kasman copies of "Extra Work Field Report" prepared by Mixon. The reports show Mixon pumped liquids from the lime pits for four (4) hours on January 20, 1993, six (6) hours on January 21, 1993 and four (4) hour on January 22, 1993. Leger was unable to determine the total volume of liquid pumped. Leger stated he never

performed laboratory analysis on the waste discharged to the storm drain and did not have a permit from any agency to do so. Leger said he believed the liquid to be pure rain water.

Leger stated Liquid Air had a release of liquid from the lime pit on January 22, 1993. Leger said he did not know the cause of the release. However he agreed that a substance was traced back to Liquid Air's storm drain. Leger said Liquid Air took preventative measures to see that no liquids entered the storm drain inlet, located on Liquid Air's facility, by placing sand bags around the inlet. Leger said a fork lift driver ran over the sand bags which caused a breach in the containment. Leger said another employee, performing routine maintenance, hosed down the pavement and the water ran into the storm drain. Leger said he thought the storm drain inlet was cleaned out during the previous release.

Leger consented to allow an inspection of the facility. Photographs and split samples were taken. A Notice of Violation and order to comply was issued. Leger accepted the split samples and Notice of Violation.

Bryan Evert Leger, Jr.	
33162 Leeward Way	
Lake Elsinore, CA 92530	Male
(909) 678-7331	Hair: Brown
	Eyes: Brown
DOB: 12/6/65	Height: 5-07
LA DL: 003238750	Weight: 145 lb
SSN: 439-43-5633	

LOS ANGELES COUNTY FIRE DEPARTMENT
PREVENTION BUREAU
HEALTH HAZARDOUS MATERIALS DIVISION

Report of Investigation

REPORT PREPARED BY:	DATE:	LOG NUMBER:
Marty Kasman, HMS-II	February 2, 1993	930201-93-019

SUSPECT NAME/ADDRESS:	DATE OF INVESTIGATION:
David Mixon, Foreman Advanco Constructors, Inc. 1500 W. 9th St. Upland, CA 91785 (714) 982-8803	January 29, 1993

On January 29, 1993 Hazardous Materials Specialists Marty Kasman and Peter Torres interviewed David Mixon at Liquid Air. Mixon said he was employed by Advanco Constructors, Inc. 1500 W. 9th St. Upland CA 91785 (714) 982-8803. Mixon stated he was the Foreman for the Liquid Air Project for approximately a month.

Mixon said Advanco Constructors was hired by Liquid Air to fill in the lime pits and prepare the property to become a parking lot. The project involved de-watering the lime pits (pumping the liquid from the pits), filling the hole in with clean fill, and grading the surface flat. There were no plans to remove any residual lime. The project started during the three days between Christmas and New Years, December 28 - December 30, 1992. During that period of time Mixon pumped the liquids from the large pit to the small pit. Mixon said Leger told Advanco what to do. Mixon said he was called by Ron Levine, V.P. Advanco and told to pump all the liquids from the pits to the storm drain. Mixon understood the request to originate from Leger. Mixon stated he used three pumps to pump the liquids into the storm drain inlet located next to the acetylene plant. Mixon was unable to calculate the volume of the liquids disposed. Mixon said he worked alone that day. Mixon said the rain slowed down the draining of the pits because of the additional water added to the holes. Mixon said Leger looked in the storm drain and the pits and identified the liquids to be water. Mixon said he was following the orders of the customer, Leger, and did not ask any further questions.

David Robert Mixon 9171 Heather St. Alta Loma, CA 91701	Male Hair: Blonde Eyes: Blue
DOB: 7/3/59 CA DL#: N5578057	Height: 6-03 Weight: 200 lb

C.M. Yor

Chrs I-225

COUNTY ENGINEER

EDMUND G. BROWN JR., Governor

STATE OF CALIFORNIA—RESOURCES AGENCY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460

REPLY ___ ACTN ___ INFO ___
REFD TO ___

MAY 20 2 53 PM '76

REPT ___ PRE REPLY ___
RTB ___ JTR ___ HA ___
GJF ___ CWJ ___ RTR

RECEIVED
MAY 20 1976
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

MAY 19 1976

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. Bill Aldrich, Plant Manager

RE: Wastewater Discharge (B III-76)

Gentlemen:

This will confirm the discussion on May 5, 1976, between N. O. Acedera of this Board's staff and your Mr. Mike Bonin.

On May 5, 1976, a substantial amount of white deposits was observed in the unlined ditch south of your property. The deposits were traced to a storm drain which drains your lime storage area, and apparently resulted from the lime being washed into the storm drain by storm water runoff.

This is an illegal discharge and not in accordance with applicable provisions of the California Water Code.

The problem was discussed with your Mr. Mike Bonin, who was requested to clean up the lime deposits, and to undertake preventive measures to assure that similar incidents are effectively prevented. Mr. Bonin promised to comply with the request.

All solid waste materials generated by the clean up must be disposed of at a legal point of disposal. Lime mixed with soil is classified under Group II wastes and therefore must the disposed of at a Class II disposal site.

It is requested that you provide a written report to this Board by June 3,1976, of the measures you will take or have taken, to preclude pollutants from being carried off of your property by storm water runoff, and discharged to the storm drain system or other surface water tributaries. Please include in the report the date cleanup of the unlined ditch was completed, and copies of the Waste Haulers Reports indicating final point of disposal of generated wastes.

If you have any questions concerning this matter, please call Mr.Miller E. Chambers.

Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board Legal Division (ATTN: Harry Schueller)
Los Angeles County Engineer
Project Planning And Pollution Control Division

9/13/76 — Called Gardena, he said they are using water to cool tanks outside and in back and which the water is going into storm drain. Also, process waste which is a by-product of Oxy-acetylene and other is being hauled away, company wishes to dump to ground.

DICE 02509

4 cert

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012

Reply refer to:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-

October 4, 1989

P.17508 - Henry

RECEIVED
SACRAMENTO (CORP)
89 OCT 10 AM 10:52
SECRETARY OF STATE

March Fong Eu
Secretary of State
State of California
Corporate Division
1230 'J' Street
Sacramento, CA 95814

Attention: Donna Rice, Supervising Program Technician II

Dear Ms. Rice:

In connection with our criminal cases involving court or jury trials, we are required to show to the court a certified copy or copies of Articles of Incorporation, Amendments, and Statement of Officers, for corporations located within the State of California.

We, therefore, are requesting certified copies of these documents on the corporation(s) listed below:

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Please send reply to:

Chris Johnson, Hazardous Materials Specialist
Hazardous Materials Control Program
Department of Health Services
2615 S. Grand Ave. Room 601
Los Angeles, CA 90007

Bills for processing these Certified Copies should be sent to:

County of Los Angeles Department of Health Services
Program Planning and Evaluation Services
313 N. Figueroa St. Room 326
Los Angeles, CA 90012

Thank you for your cooperation in this matter.

Very truly yours,

William Jones

William Jones, M.S., Chief
Investigative Section
Hazardous Materials Control Program

WJ:cj

COUNTY OF LOS ANGELES ● DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012

October 4, 1989

Reply refer to:
2615 South Grand Avenue, Room 607
Los Angeles, CA 90007
(213) 744-

P.17508 - Henry

March Fong Eu
Secretary of State
State of California
Corporate Division
1230 'J' Street
Sacramento, CA 95814

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We, therefore, are requesting certified copies of these documents on the corporation(s) listed below:

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Please send reply to:

Chris Johnson, Hazardous Materials Specialist
Hazardous Materials Control Program
Department of Health Services
2615 S. Grand Ave. Room 601
Los Angeles, CA 90007

Bills for processing these Certified Copies should be sent to:

County of Los Angeles Department of Health Services
Program Planning and Evaluation Services
313 N. Figueroa St. Room 326
Los Angeles, CA 90012

Thank you for your cooperation in this matter.

Very truly yours,

William Jones

William Jones, M.S., Chief
Investigative Section
Hazardous Materials Control Program

WJ:cj

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

February 24, 1993

Dr. Robert G. Ghirelli
Los Angeles Regional
Water Quality Control Board
101 Centre Plaza Dr.
Monterey Park, California 91754-2156

Dear Dr. Ghirelli:

SUBJECT: LIQUID AIR CORPORATION, 8832 DICE ROAD, SANTA FE SPRINGS SITE ASSESSMENT AND REMEDIATION

On January 29, 1993, representatives of this Department responded to a discharge of hazardous substances from the subject facility into a culvert which leads to Coyote Creek. This Department intends to pursue any appropriate legal filings and/or enforcement actions as it relates to the offsite discharge from the Liquid Air facility. However, for the following reasons, we feel it is important and necessary for your agency to become involved as the lead agency on site remediation issues related to two evaporation ponds which have been in existence for the past forty-five to fifty years:

1) Ground water is reported to be relatively shallow at approximately forty feet below ground surface.

2) Liquid Air is arguing that because lime is excluded from hazardous waste provisions under the Health and Safety Code we have no jurisdiction. Your authority on this matter is very clear and is documented by a series of notifications from your agency to Liquid Air over the past twenty years.

3) There is currently no public health concern requiring evaluation except as it relates to potential groundwater impact.

4) Your agency previously issued an NPDES permit for the evaporation ponds at the facility and should therefore follow up violations relating to the said permit.

5) The calcium hydroxide (lime) has been or will shortly be removed by Liquid Air which will leave only ground water issues to be resolved. Liquid Air was given permission to complete excavation of "product" with concurrence from your office.

For the above reasons, this Department is referring this matter to your agency for remediation oversight. Mr. Rod Nelson has visited the site with Tom Klinger of my staff, and has been given a briefing on our concerns and a copy of a pit closure report from Liquid Air Corporation. This Department would appreciate copies of any correspondence in the future and will direct all future inquires by Liquid Air to your agency relative to remediation and evaluation of groundwater impact.

If you have any questions on this matter please feel free to contact Tom Klinger of my staff at (213) 890-4106.

Very truly yours,

P. MICHAEL FREEMAN

by
WILLIAM JONES, M.S., MANAGER
INVESTIGATIVE SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:kc

cc: J. Karbus
T. Klinger
R. Gillaspy
D. Dasker
C. Wilson
S. Koester

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
101 CENTRE PLAZA DRIVE
MONTEREY PARK, CA 91754-2156
(213) 266-7500

February 23, 1993

Mr. Robert Predmore
Director of Engineering
Liquid Air Corporation
2121 North California Blvd.
Walnut Creek, CA 94596

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Claim No. P 997 019 711

SITE INVESTIGATION - LIQUID AIR CORPORATION, SANTA FE SPRINGS
(FILE NO. 93-03)

The California Regional Water Quality Control Board, Los Angeles Region, is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within the Region.

On February 17, 1993, staff from this Regional Board accompanied staff from Los Angeles County Fire Department, Health Haz Mat Division (County Haz Mat) during an inspection of a lime pit located at the Liquid Air Facility in Santa Fe Springs. The unlined pit was used to discharge spent lime used in the production of acetylene gas. Material in the pit is currently being excavated, and a closure plan for the pit has been submitted to County Haz Mat for their approval.

During the inspection, Regional Board staff observed conditions such as ponded water and runoff from the facility in the pit which may have an adverse impact on ground water quality beneath the site. Further, analyses of samples of water in the pit and from lime adjacent to the pit obtained from the California Department of Health Services (now the Department of Toxic Substances Control) in August 1991 indicate high pH in excess of applicable water quality objectives. Liquid Air does not have Waste Discharge Requirements (WDRs) prescribed by this Regional Board for operation of the unlined pit. Discharge of pollutants to the waters of the State without valid WDRs constitutes a violation of Section 13260 of the California Water Code.

You are therefore directed, pursuant to Section 13267 (b) of the California Water Code, to submit a technical report, in this case an investigation workplan, to assess the full areal extent of the contamination in the pit and any impact that it may have on ground water quality by **March 31, 1993**. Please be advised that failure to submit this workplan may result in the issuance of a Cleanup and Abatement Order or a complaint for Administrative Civil Liability, pursuant to Section 13268 of the California Water Code, in an amount up to $1,000 per day, for each day that the technical report is not received.

In order to fully evaluate subsurface conditions onsite, you are also required to conduct a facility audit and prepare a report summarizing past and present underground and above-ground storage tank operations, and identifying areas used onsite for barrel storage and handling activities, as well as chemical processing and treatment facilities. Emphasis should be placed on depicting areas and their identified uses. A site map, to scale, showing the location of areas of concern is required. In your facility audit report, please also provide a complete chronology of prior occupants of the subject site, including dates of occupancy, type of business, and chemical storage and use information. In addition, you are required to submit the results of your 1990 underground storage tank investigation required by the Los Angeles County Department of Public Works. Staff will review the site audit information and make a determination if additional site assessment is warranted.

Should you have any questions concerning these requirements, please contact Blythe Ponek-Bacharowski at (213) 266-7580.

Rodney H. Nelson

RODNEY H. NELSON
Senior Engineering Geologist

cc: Jorge Leon, State Water Resources Control Board, Office of the Chief Counsel
Doug Suzuki, Department of Toxic Substances Control, Glendale
Tom Klinger, County of Los Angeles Forester and Fire Warden-Health Haz Mat Division
James L. Meeder, Attorney

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

Refer reply to:
HEALTH HAZARDOUS MATERIALS DIVISION
5825 Rickenbacker Rd
Commerce CA 90040

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

February 2, 1993

Milton Bird, Plant Manager
Liquid Air
8832 Dice Rd.
Santa Fe Springs, CA 90670

Dear Mr. Bird:

SUBJECT: LIQUID AIR CORPORATION LIME PIT CLOSURE

On January 28, 1993, an inspection of the above facility was conducted by staff of this Department. The investigation revealed that the lime pit is undergoing closure. As the generator/operator of the facility you are responsible for the appropriate mitigation of site conditions. Therefore you are hereby directed to:

1. Discontinue site activities of such closure until such time as you submit a written workplan and receive written approval from this Department.

2. Determine the nature, concentration, and vertical and lateral extent of contamination and legally dispose or remediate all contaminated materials or soils to either non-detectable or natural background concentration levels. If remediation of contaminated soils to non-detectable or natural background levels is not possible or feasible, appropriate federal and/or state risk assessment guidelines must be used to determine a cleanup level sufficient to protect public health and the environment.

3. Permits and/or approvals for work associated with the workplan must be obtained from all appropriate agencies.

If you have any questions, please feel free to call Marty Kasman or Tom Klinger at (213) 890-4045.

Very truly yours,

P. MICHAEL FREEMAN

By Thomas W. Klinger
for WILLIAM JONES
MANAGER, INVESTIGATIVE SECTION
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:mk

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS, ARTESIA, AZUSA, BALDWIN PARK, BELL, BELLFLOWER, BELL GARDENS, BRADBURY, CALABASAS, CARSON, CERRITOS, CLAREMONT, COMMERCE, CUDAHY, DIAMOND BAR, DUARTE, GLENDORA, HAWAIIAN GARDENS, HIDDEN HILLS, HUNTINGTON PARK, INDUSTRY, IRWINDALE, LA CANADA FLINTRIDGE, LAKEWOOD, LA MIRADA, LANCASTER, LA PUENTE, LAWNDALE, LOMITA, MALIBU, MAYWOOD, NORWALK, PALMDALE, PALOS VERDES ESTATES, PARAMOUNT, PICO RIVERA, RANCHO PALOS VERDES, ROLLING HILLS, ROLLING HILLS ESTATES, ROSEMEAD, SAN DIMAS, SANTA CLARITA, SIGNAL HILL, SOUTH EL MONTE, SOUTH GATE, TEMPLE CITY, WALNUT, WEST HOLLYWOOD, WESTLAKE VILLAGE, WHITTIER

LIQUID AIR CORPORATION
INDUSTRIAL GASES DIVISION

RECEIVED
JAN 15 1982
SANITATION

December 22, 1981

County of Los Angeles
Department of County Engineer-Facilities
Los Cerritos District
Bellflower, California

Mr. Higbee:

As per our meeting yesterday, December 21st, I am enclosing information regarding our improved cylinder maintenance area. This area will incorporate existing equipment that is being relocated. Existing equipment includes an hydrostatic test capability which currently generates 125 gallons of waste water a day, a dry paint spray booth which was installed two years ago as a replacement for a wet paint spray booth, and a cylinder drier.

The existing dry paint spray booth is being replaced by a Paasche Model SW85-X wet paint spray booth. This booth has a 250 gallon water tank. Based on the capacity of the water tank, the estimate of 4 gallons of paint used each day to paint 100 cylinders, and the use of a highly efficient deflockulator it is expected that the water tank will have to be dumped and refilled once a month. The booth process piping will convey the waste water to a 388 gallon sump where it will be allowed to sit for a short time. It will then be pumped to an existing drain system which has a 1500 gallon interrupter. The pump rate is 45 gallons per minute.

The deflockulator causes the particulate paint to float on the surface of the water tank where it will be regularly skimmed. We expect to generate less than 5 fluid ounces of waste paint per month that will excape our clean up system.

The 125 gallons per day of waste water currently generated by our hydrostatic test facility is essentially clean city water. City water is used to fill our cylinders for testing. This water is then dumped after the test. No chemicals, or any other materials are added to the water during the testing.

The attached sheets show calculations used to achieve the above numbers and also the name plate data from the sump pump.

Thank you for your time in reviewing our modifications with us. You have been most considerate and helpful.

Sincerely,

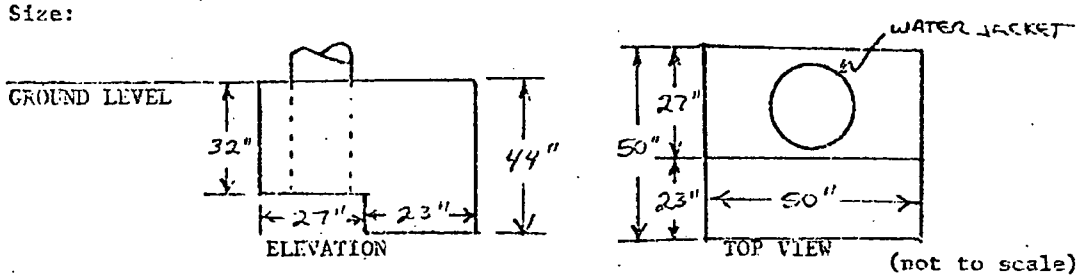
Dennis W. Buller
Project Engineer

Mailing Address: 9232 Dice Road, Santa Fe Springs, CA 90670 • Phone: (213) 945-1383
Liquid Air Corporation of North America — Liquid Air Inc.

COMPUTATION SHEET

SUMP VOLUME:

1-Sump Size:



2-Volume:

$$\begin{array}{rl} 50'' \times 27'' \times 32'' = & 43{,}200 \text{ cu in} \\ +\ 50'' \times 23'' \times 44'' = & \underline{50{,}600 \text{ cu in}} \\ \text{TOTAL} & 93{,}800 \text{ cu in} \end{array}$$

$$\frac{93{,}800 \text{ cu in}}{1728 \text{ cu in/cu ft}} = 54.28 \text{ cu ft}$$

3-A water jacket of 12.5" O.D. will be mounted vertically in the shallow end of the pit. Its volume is:

$$\frac{32'' \times (12.5'')^2 \times 0.25 \times 3.14}{1728 \text{ cu in/cu ft}} = 2.27 \text{ cu ft}$$

4-Useable sump volume: 54.28 cu ft - 2.27 cu ft = 52.01 cu ft.

5-In Gallons: 52 cu ft x 7.48 gal/cu ft = 388.96 gallons capacity

HYDROSTATIC TEST WATER WASTE (Based on the worst case of all cylinders being our largest 350 scf cylinders):

1-Water Volume per Cylinder (calculated using data for Argon):

$$350 \text{ scf/cyl} \times \frac{1 \text{ gallon}}{112.45 \text{ scf}} = 3.11 \text{ gallons}$$

2-Total Water Volume Generated per Day:

3.11 gallons x 40 cyl/day = 124.5 gallons

PAINT WASTE (Paasche indicates that 20% of the volume of our paint is particulate and in our application we will have an 80% spray efficiency):

1-We currently spray 100 cylinders per day using 4 gallons of paint.

2-Waste Volume:

$$4 \text{ gal/day} \times .2 \frac{\text{gal part}}{\text{gal paint}} \times .2 \frac{\text{gal waste}}{\text{gal part}} \times 22 \frac{\text{work days}}{\text{month}} = 3.52 \text{ gallons of waste per month}$$

3-Waste to Drains (assuming a 99% efficient deflockulator):

3.52 gal/month x 0.01 x 128 oz/gal = 4.51 fl oz waste per month that will escape our system

NEW SUMP PUMP NAMEPLATE DATA:

MFR: ENPO Pump Co

MODEL: 1250-4-474 Automatic

ELECTRICAL: 115 volt, single phase, 60 cycle, 7 amps, 1/4 horsepower

MAX TEMP: 150°F.

CAPACITY: 2700 GPH (45 GPM) with a 5 Foot Discharge Head

TURN-ON: 12" (Equivalent to 60 gallons of water in sump)

TURN-OFF: 2" $\pm$ 1"

Cy 12-27

INSPECTOR'S REPORT

TO: VAL NERGER

FROM: E.L. THOMPSON

FILE: BURDETT OXYGEN CO. I-225-
8838 DICE Rd LOS NIETOS

DATE: 9-29-53

REPORT: INSPECTION WAS MADE TO DAY OF ABOVE COMPANY'S DISPOSAL METHOD.

CONTACTED MR. I.C. GREEN FOREMAN OX 44129. MR. GREEN STATED THAT NO CHANGE HAS BEEN MADE IN THEIR DISPOSAL FACILITIES SINCE LAST INSPECTION OF 3-24-53 BY MR. JOE KNIGHT OF OUR DEPT.

ALL CONDITIONS OF I.W. PERMIT #6 FROM #1 TO #3 WAS BEING COMPLIED WITH.

CARBIDE SLUDGE STILL GOES TO QUARRY (APPRO. 100' X 200' X 25') WHICH IS LOCATED ON COMPANY'S PROPERTY.

NO 6130 VIOLATION EXIST AT PRESENT TIME.

3-15-54 All conditions of permit #6 being complied with. Operations are the same as in previous report. Van Diest.

76 I 550L15 S&E 658 1 2/52

DICE 02520

cw 9.22.53

INSPECTOR'S REPORT

TO: Don L. Coates

FROM: J. Knight

FILE: Burdett Oxygen Co. I-225
8838 Dice Rd, Los Nietos

DATE: 3-24-53

REPORT: An inspection was made here today of this company's waste disposal facilities as they apply to L.A. County ord. 6130, permit #6. Mr. I.C. Green Foreman OX 44129 was contacted.

It was found that—

1. There was no violation under the permit.
2. Carbide sludge is discharged into & contained in a large 100'x 200'x 25' unlined, abandoned quarry pit on this company's property.

76 I 550L15 S&E 658 12/52

DICE 02521

INSPECTOR'S REPORT

TO: B. R. Matthiesen

FROM: T. Otteson

FILE: Burdett Oxygen Co. I225
~~2032~~ 8838 Dice Rd., Los Nietos.

DATE: 9-22-52.

Report: Operations are in compliance with permit #6. Acetylene sludge and excess cooling water is discharged to the large pit dug last summer. It is estimated by Mr. R.W. Kent, foreman in charge, that the sump will last approx. 15 yrs.

MR C. C. Green OX44129 foreman
sludge going to pit for Permit #6

DICE 02522

INSPECTOR'S REPORT

TO: T. T. OTTESON

FROM: E. L. THOMPSON

FILE: BURDETT OXYGEN CO.
2032 DICE Rd LOS NIETOS

DATE: MAY 2, 1952

Report: INSPECTION WAS MADE MAY 2, 1952 AT ABOVE LOCATION. THIS INSPECTION WAS TO DETERMINE IF ANY CHANGES HAVE BEEN MADE IN WASTE DISPOSAL SINCE LAST INSPECTION.

CONTACTED MR. GREEN "FOREMAN OF PLANT." HE STATED THAT IN TWO WEEKS, THEY ARE PUTTING IN A CIRCULATING TANK FOR COOLING WATER FOR CYLINDERS AND COMPRESSOR UNIT. AFTER IT IS INSTALLED THE ONLY WATER THAT WILL BE GOING TO PIT IS RESINUE FROM COMPRESSOR.

AT PRESENT TIME THERE HAS BEEN NO CHANGES MADE. ALL PLANT OPERATIONS ARE AS PREVIOUSLY REPORTED & ARE IN ACCORDANCE WITH ORD #614 PERMIT #6

DICE 02523

LIQUID AIR CORPORATION

2121 N. California Blvd.
Walnut Creek, CA 94596

Telephone: (415) 977-6500

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO: P-566 422 573

July 23, 1989

Mr. Miguel Garcia
Hazardous Waste Control Program
Occupational Health Division
Environmental Management
2615 South Grand Ave., 6th Floor #607
Los Angeles, CA 90007

SUB: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA

RE: Status Report for Week of 7/21/89

Dear Mr. Garcia:

Attached hereto is the status report on subject for week of 7/21/89 prepared by our consultant Ensco.

Very truly yours,

David N. Simon
Manager Regulatory Affairs

DNS/pr

Att.

cc: T. Barber
W. Nastri

dns/1/158-89

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

To: Mr. David Simon
Liquid Air Corporation

From: Walt Pouchot
Chemical Services Manager
Ensco Environmental Services, Inc.

Subject: Remediation Status Report for week of 7/21/89

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA. 90670

Phase	Finish Date
1. Sampling, segregation Hazcat and initial packaging	Complete
2. Laboratory Analysis, profile preparation, final packaging. This phase is 98% complete. Drum lids will be checked for proper seal on 7/24 and a few drums of debris will be created as part of final site clean up. Final staging will beaccomplished on 7/24 as well, as will labeling for final shipment.	7/24
3. Coordinate, interface and obtain TSD approval for shipment. All Ensco profiles have been approved, except for the potassium hydroxide sludge, which was rejected on 7/21. This was reprofiled for disposal at Appropriate Technologies II and we expect approval 7/24 or 7/25. Thermo Kem has given verbal profile approval for the mercury contaminated waste (10 drums). We expect this in writing on 7/24. We await final approval from Appropriate Technologies II on the six corrosive drum profiles. As of today it must be signed by the manager, but we've received verbal approval. This phase is also 98% complete, with only approvals needed in writing for	7/26

12 drums of corrosives at Appropriate Technologies II, and 10 drums at Thermo Kem. Of these 22, we've received verbal approvals on 16. The six drums of potassium hydroxide sludge rejected by Ensco and reprofiled at Appropriate Technologies is the exception, as discussed above.

4. Schedule shipping date and prepare manifests 7/24

Oil/water drums have already been shipped to PRC for recycling. Drums destined for OSCO will be shipped on 7/24, as will waste batteries to Kimburski Bros. Manifests for these shipments have been completed. Manifests for Ensco, Thermo Kem and Appropriate Technologies will be completed on 7/24. Shipping dates for ENSCO and Thermo Kem are set for 7/27 and 7/28. We expect to set a shipping date for Appropriate Technologies as soon as final approval is received for the materials profiled for disposal there-hopefully on 7/24.

5. Ship material 7/31
See part 4.

We see no reason why the schedule should not be met, considering that shipping dates have been set for all materials other than those corrosives destined for Appropriate Technologies II. Since we will be transporters for this material, we can schedule movement of these wastes quickly. We will expedite the approval of the potassium hydroxide waste profiles at AppTech II to ensure they are removed from the site by 7/31.

July 21, 1989

PROFILE #	DESCRIPTION	NO. OF DRUMS
	ENSCO	
83814	Corrosive Solid NOS	5
83812	Hazardous Waste Solid NOS-ORME	13
83786	California Regulated Only Oily Sludge	1
85779	Hazardous Waste Liquid NOS ORME	9
83797	Hazardous Waste Solid NOS-ORME	5
83809	Hazardous Waste Solid NOS-ORME	3
83780	Hazardous Waste Liquid NOS ORME	1
83799	Hazardous Waste Solid NOS-ORME	1
83798	Waste Corrosive Solid NOS ORME	3
83776	Hazardous Waste Liquid NOS ORME	1
83775	Hazardous Waste Solid NOS-ORME	9
83787	California Regulated Waste Only (Decon & Wash Water)	1
83777	Waste Paint Related Material Flammable Liquid	2
83806	Hazardous Waste Solid NOS-ORME	3
83807	Hazardous Waste Solid NOS-ORME	3
83804	Waste Corrosive Solid NOS	1
83802	Waste Corrosive Solid NOS	1
83778	Hazardous Waste Solid NOS-ORME	3
83808	Hazardous Waste Solid NOS-ORME	4
83800	California Regulated Waste Only (Contaminated Debri)	10
83816	Hazardous Waste Liquid NOS ORME	7
83815	California Regulated Waste Only (Crushed Empty Drums)	8.5 yds (34 drums)
		122 Drums
	CYNO KEM/THERMO KEM	
ST00003-7904	Hazardous Waste Solid NOS ORME	3
ST00003-7905	Hazardous Waste Solid NOS ORME	7
		10 Drums
	KETTLEMAN	
J36413	California Regulated Waste Only (Calcium Chloride)	4
J36329	California Regulated Waste Only (Lime Rock)	1
J36328	Waste Corrosive Solid NOS Corrosive	1
J36407	California Regulated Waste Only (Rock Filler)	1
		7 Drums

7/21/89 - Tentative. Load at Cooley & Overton Long Beach, CA.

	OSCO	
LAX J36411	California Regulated Waste Only (Ethylene Glycol)	5
LAX J36412	Hazardous Waste Liquid NOS ORME	1
LAX J36410	Waste Combustible Liquid NOS	1
LAX J36424	Waste Combustible Liquid NOS	1
LAX J36423	Hazardous Waste Liquid NOS ORME	9
		17 Drums
	PRC	
	California Regulated Waste Only (Oil/Water)	**15 Drums**
	KINBURSKY BROS.	
	Waste Batteries Wet. Corrosive	**150#**
	APPROPRIATE TECHNOLOGIES II	
	Waste Potassium Hydroxide Solution, Corrosive	6
	Waste Potassium Hydroxide Corrosive	4
	Waste Sulfuric Acid Corrosive	1
	Waste Corrosive Liquid NOS Corrosive	1
		12 Drums

*****TOTAL*****

ENSCO	88 DRUMS 8.5 Yd(3) = 34 DRUMS EQUIVALENT
THERMAL KEM	10 DRUMS
APPROPRIATE TECHNOLOGIES II	12 DRUMS
KETTLEMAN HILLS	7 DRUMS
OSCO	17 DRUMS
PRC	15 DRUMS
KINBURSKY BROS.	150# - 1 PALLET

183 DRUMS

BETZ LABORATORIES, INC.

GENERAL OFFICES • ENGINEERING HEADQUARTERS | PHILADELPHIA, PA. 19124

February 9, 1965

Industrial Waste Division
Office of County Engineer
9957 E. Flower Street
Belflower, California

American Cryogenics

Attention: Mr. Robert Moore

Gentlemen:

Pursuant to our conversation of February 9, 1965 we would request your comments regarding our proposed treatment program for the cooling water system at American Cryogenics plant, 8832 Dice Road, Santa Fe Springs, California.

It is our desire to treat the recirculating cooling water system with a chromate type inhibitor. The blow down water from this system that would be sewered should have the following characteristics:

A.	Chromate as CRO 4	Less than 15 ppm
B.	pH	6.5
C.	TDS	Less than 2,000 ppm

With the present plant operation we would estimate a daily blow down rate of approximately 40,000 gallons.

If these conditions do not conflict with present waste water restrictions, we would appreciate a statement from you to that effect.

Very truly yours,

Betz Laboratories Inc.

A. Bruce Gilliam

A. Bruce Gilliam
District Engineer

INDUSTRIAL WASTE DIVISION
DEPARTMENT OF COUNTY ENGINEER
COUNTY OF LOS ANGELES
APPROVED
INDUSTRIAL WASTE PLANS
INSTALLATION [illegible] waste piping [illegible] sinks, interceptors or other [illegible] ties, for the collection or disposal [illegible] liquid wastes shall be installed as [illegible] plan with the trade waste or other [illegible] required by the Plumbing Code [illegible] or waste piping for [illegible] sanitary sewage from [illegible] change rooms, [illegible] laboratories, [illegible] or wash basins or drinking fountains [illegible] items within a building shall be installed [illegible] cordance with the Plumbing [illegible]
By [illegible] Date 2-18-65

RECEIVED
FEB 10 1965
L. A. COUNTY ENGINEER
LOS CERRITOS
REGIONAL OFFICE

JOHN A. LAMBIE
COUNTY ENGINEER

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
LOS CERRITOS REGION

9957 EAST FLOWER AVENUE
BELLFLOWER, CALIFORNIA
TORREY 6-7011

JOHN L. EXTON
REGIONAL ENGINEER

February 19, 1965

Betz Laboratories, Inc.
Gillingham & Worth Street
Philadelphia, Pennsylvania 19124

Attention A. Bruce Gilliam,
District Engineer

Gentlemen:

You requested and desire to treat the recirculating cooling water system with a chromate type inhibitor. The blowdown water from this system that would be sewered should have the following characteristics:

A. Chromate as CRO4 less than 15 ppm

B. PH 6.5

C. TDS less than 2.000 ppm

Your request is granted.

In the future if the sewer water from this area is to be reclaimed a different type of inhibitor other than chrome will have to be used. This is unforeseen in the near future.

Very truly yours,

ORIGINAL SIGNED

Robert A. Moore
Sr. Ind. Waste Engr. Inspector

RAM-ep

cc: American Cryogenics
8832 Dice Rd.
Santa Fe Springs, California

Attn. Bill Delaney

CITY OF SANTA FE SPRINGS

INDUSTRIAL WASTE DISPOSAL PERMIT

NO. 3[illegible]

FILE I-225-1H

DATE May 20, 1964

Permission is hereby granted under Ordinance No. 79 (as amended)

to California Oxygen Division of American Cryogenics, Incorporated

8832 Dice Road, Santa Fe Springs, California

(Mailing Address)

to discharge or deposit waste or other material from or upon the premises located at

8832 Dice Road, Santa Fe Springs, California

Materials covered by this permit shall consist of:

wastes from gas compression and liquefaction operations.

The above materials shall be disposed of in accordance with the special conditions and limitations attached hereto. Any solid or liquid material or substance not specifically described above shall be disposed of only at an approved legal point of disposal.

This permit is not transferable from one location to another and may be revoked if used contrary to the provisions of this permit or of the above Ordinance.

This permit does not relieve the permittee from the obligation to conform with the requirements of any other governmental agency having jurisdiction.

ORIGINAL SIGNED

JOHN A. LAMBIE
CITY ENGINEER

10/23/63

Reg. 10

CITY OF SANTA FE SPRINGS

May 20, 1964

City of Santa Fe Springs
9836 South Jersey Avenue
Santa Fe Springs, California

Attention Mr. Robert L. Williams

Gentlemen:

CALIFORNIA OXYGEN DIVISION OF
AMERICAN CRYOGENICS, INC.
8832 DICE RD. (I-225-1H)

The enclosed Industrial Waste Disposal Permit No. 3361 has been processed in accordance with the provisions of Ordinance No. 79 (Sanitary Sewer and Industrial Waste Ordinance) of the City of Santa Fe Springs. This permit is transmitted for your review for conformance with Ordinances and regulations of the City of Santa Fe Springs and for delivery to the applicant.

Prior to discharge to the sanitary sewer available to this site, wastes from gas compression and liquefaction operations will be pretreated through a Sand and Grease Interceptor, Standard No. S-a-170.

Please advise this office when this permit has been delivered to the applicant.

Yours very truly,

ORIGINAL SIGNED

John A. Lambie
CITY ENGINEER

JAL-NB:hf 8

Enc.

cc: Mr. Robert L. Williams

dc: JAL Reg. 10 RRC FILE I-225-1H
LDM Per. Issued NB FILE I-4041-1H
CDS

DICE 02532

CITY OF SANTA FE SPRINGS
SPECIAL CONDITIONS AND LIMITATIONS
INDUSTRIAL WASTE DISPOSAL PERMIT NO. 3361
CALIFORNIA OXYGEN DIVISION OF AMERICAN CRYOGENICS, INCORPORATED
(I-225-1H)

---

1. This permit is issued to California Oxygen Division of American Cryogenics, Incorporated, for the disposal of wastes resulting from gas compression and liquefaction operations at 8832 Dice Road, Santa Fe Springs, California.

2. Liquid industrial wastes shall be pretreated through a Sand and Grease Interceptor, Standard No. S-a-170, prior to discharge to the sanitary sewer.

3. The pH of all effluent discharged to the sanitary sewer shall be maintained at pH 6.0 or above.

4. Uncontaminated cooling water and/or storm water shall not be discharged to the sanitary sewer.

5. No discharge to the sewer may be made of any substances in solution or suspension which may clog, obstruct or fill the sewer; or cause damage, interfere with or prevent the use thereof; or which may require frequent repair, cleaning or flushing of the sewer.

6. All liquid industrial wastes and water-soluble solid wastes produced at the above location not acceptable for discharge to the sanitary sewer shall be stored in impervious containers pending transportation to a legal point of disposal.

7. By signing waste hauler's reports the permittee shall certify the materials, source, quantity and point of disposal for all such wastes removed from the premises for disposal at any other location. The signed original of this report shall be forwarded to the City Engineer as indicated thereon. A copy of the waste hauler's report is attached.

8. Waste disposal operations shall be conducted in such a manner that no nuisance is created.

9. Representatives of interested governmental agencies concerned with the disposal of industrial waste shall be permitted access at any reasonable time to take samples and inspect operations.

10. The City Engineer may modify this permit by addition, revision or elimination of Conditions and Limitations as may be necessary to accomplish the purposes of ordinances covering the disposal of waste materials.

11. The City Engineer shall be notified and his written approval secured before making any additions or modifications which may affect the quantity, quality, or method of disposal of waste materials.

12. Violation of any of the Conditions of this permit shall be cause for suspension or revocation.

NB:hf 8
5/20/64

KH ✓

I-225

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460

COUNTY ENGINEER
REPLY ACTN INFO
REFD TO

NOV - 7 1977
11:00 AM

REPT TO PREP REPLY
RKW
RJR IHA

RECEIVED
NOV 07 1977
PROJECT PLANNING AND
POLLUTION CONTROL DIVISION

NOV 4 1977

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. C. W. Aldrich
Plant Manager

RE: Waste Discharge Requirements (CA0058335) (CI 6301)

Gentlemen:

Reference is made to Order No. 77-3 (NPDES Permit No. CA0058335), prescribing requirements for the disposal of wastes from your facility at the above location.

Requirement A-2 prohibits the discharge of an effluent with total dissolved solids concentration in excess of 700 mg/l; requirement A-5 provides that wastes discharged shall at all times be within the range of 6.0 to 9.0; and, requirement A-8 provides that wastes discharged shall not cause the formation of sludge deposits.

On October 31, 1977, this Board's staff found extensive white deposits in the unlined ditch south of your property. The deposits, which extended to Sorenson Avenue, were traced to your discharge point. Laboratory analysis of a sample of the wastes ponded immediately below your discharge point showed a pH of 11.9. These are violations of the above-mentioned requirements. In addition, field tests of the waste indicated a total dissolved solids concentration in excess of 5,000 mg/l. If confirmed by laboratory analysis, this would also be a violation of your discharge requirements.

The problem was discussed with your Mr. Tom Taylor, who was requested to immediately undertake cleanup of the unlined ditch, removing the white deposits and pumping out the wastewaters ponded around the discharge point. Mr. Taylor promised to comply with the request.

It is requested that you undertake cleanup work immediately, and take necessary measures to prevent similar incidents from

cwb

DICE 02534

recurring in future and to assure that all requirements are fully complied with at all times.

It is further requested that you submit a written technical report to this Board by November 21, 1977, providing details of the preventive measures you have adopted. Please include in the report the date all cleanup work was completed and the final disposal point of the wastes.

If you have any questions concerning any of the above, please call Mr. Miller E. Chambers of this Board's staff.

Very truly yours,

Richard C. Thomas

for RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board, Legal Division
ATTN: Harry Schueller
✓Los Angeles County Engineer, Project Planning and Pollution Control Division
Los Angeles County Flood Control District

Sample and Evidence Log

Investigative Section

HAZ MAT

Form #SE1
rev 2.0 • 8/92

Los Angeles County
Fire Department
Prevention Bureau

Hazardous Waste
Control Program

Page 1 of 1

Name/DBA: LIQUID AIR CORP.

Address: 8832 DICE RD

Date: 1/27/93

City: SANTA FE SPRINGS Zip: 90670 Phone: (310) 945-1383

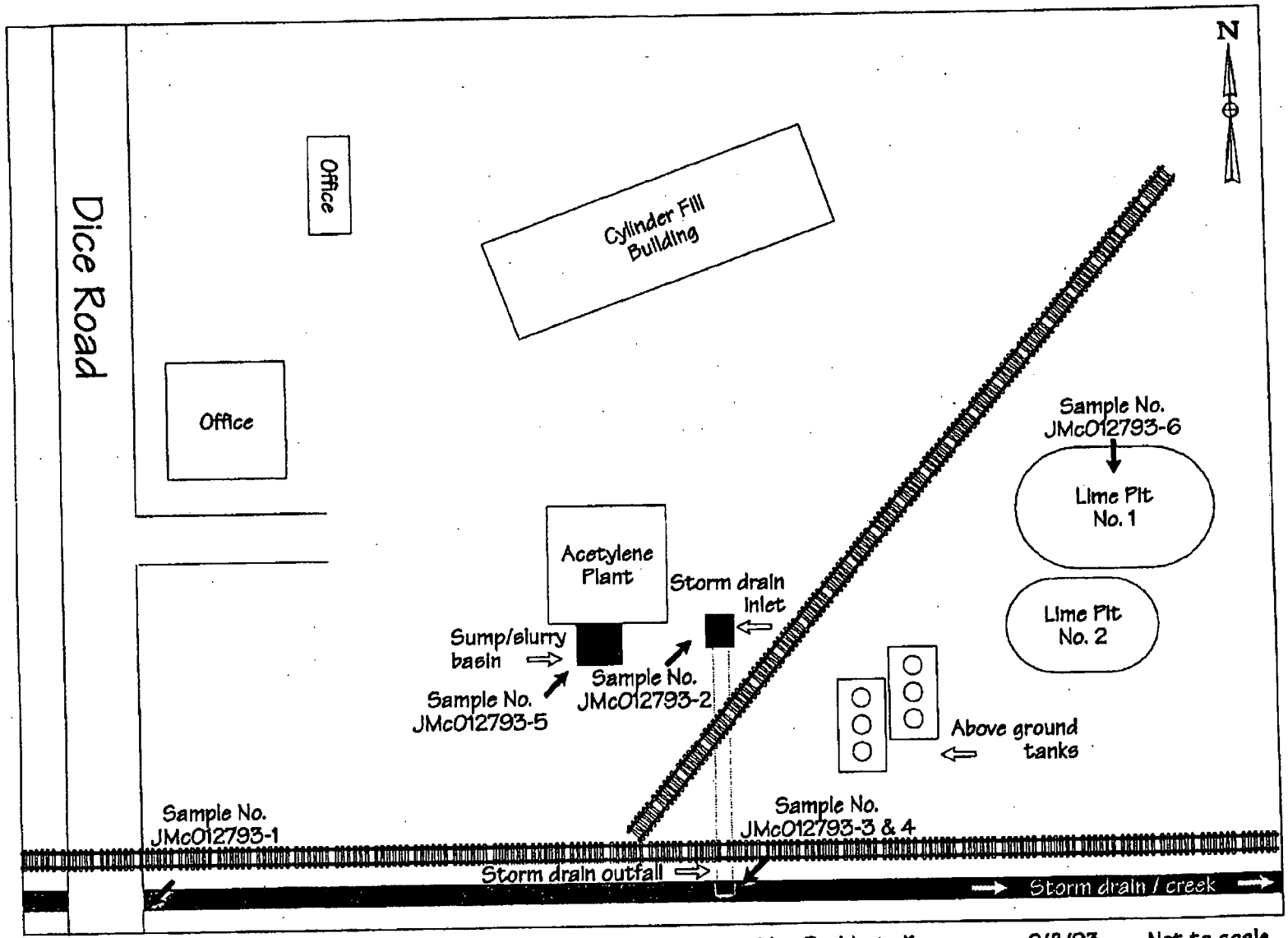
Start Time: 2330

Sampler: JIM MCCARRON Witness: MARTY KASMAN

Sample/Photo #	Time	Location	Description
Sample #: JMC012793-1 Photo #: A & B	2330	CREEKBED 8 ft EAST OF DICE ROAD	MUD + WATER BACKGROUND SAMPLE FIELD pH 8
Sample #: JMC012793-2 Photo #: A & B	2350	STORM DRAIN INLET AT SOUTH EAST CORNER OF ACETYLENE PLANT	MUD + WATER FIELD pH 9
Sample #: JMC012793-3 Photo #: A & B	0015	CREEK BED Bottom SLUDGE AT OUTFALL PIPE	SLUDGE FIELD pH 12-13
Sample #: JMC012793-4 Photo #: A + B	0020	CREEKBED Bottom LIQUID 3ft INSIDE OF OUTFALL PIPE	LIQUID FIELD pH 12-13
Sample #: JMC012793-5 Photo #: A + B	0050	SUMP/SLURRY BASIN ON SOUTH SIDE OF ACETYLENE PLANT	LIQUID
Sample #: JMC012793-6 Photo #: A + B	0115	SOIL SAMPLE FROM Bottom OF LARGE PIT	SLUDGE
Sample #: Photo #:			
Sample #: Photo #:			
Sample #: Photo #:			

Split Samples Received By: "B" SAMPLES ISSUED Bryan Lego Bryan Lego Date: 1/28/93
Project Mgr.

Health Officer: Marty Kasman



Liquid Air 8832 Dice Rd. Santa Fe Springs, CA 90670 Map By: Marty Kasman 2/8/93 Not to scale

LIQUID AIR CORPORATION
2121 N. California Blvd.
Walnut Creek, CA 94596
Telephone: (415) 977-6500

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO. P-566 422 590

July 11, 198

Mr. Wendell Francisco
Hazardous Material Specialist
Department of Health Services
Toxic Substances Control Division
107 S. Broadway
Room 7011
Los Angeles, CA 90012

Subject: Hazardous Waste Container Removal

Re: Liquid Air Corporation
8832 Dice Road,
Santa Fe Springs, CA 90670

Dear Mr. Francisco:

In accordance with the order of the Department of Health Services for Los Angeles County, Liquid Air is presently removing hazardous waste containers from the Santa Fe Springs facility for proper disposal. Liquid Air has retained the services of Ensco Environmental Services, INC. (EES) to profile, package, transport and dispose of the hazardous waste.

The disposal activities will be completed by July 31, 1989; a detailed schedule has been submitted to the County Department of Health Services. Liquid Air provides periodic reports to LA County (Miguel Garcia) concerning the status of the disposal activities.

During the removal activities, the excess hazardous waste containers are being properly stored to prevent releases to the environment. Under the management of EES, all of the containers awaiting disposal are within a secondary containment area. To date, disposal profiles have been completed and submitted to disposal sites with confirming samples. In addition, fifteen drums of oil/water mixtures have been sent to a recycler.

.../...

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

As discussed during your last inspection, Liquid Air has taken steps to dispose of the containers. This letter is to advise you of our action and to provide written notice of the foregoing activities being conducted on-site.

Should you have any questions, please contact our Mr. Tom Barber at Santa Fe Springs (213-945-1383) or the undersigned (415-977-6657).

Very truly yours,

David N. Simon
Manager Regulatory Affairs

DNS/je

cc: Mr. Tom Barber - Liquid Air Corp. - Santa Fe Springs
Mr. Miguel Garcia - LA County Dept. of Health Services

dns/1/146-89

LIQUID AIR CORPORATION
2121 N. California Blvd.
Walnut Creek, CA 94596
Telephone: (415) 977-6500

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO: P-566 422 567

July 10, 1989

Mr. Miguel Garcia
Hazardous Waste Control Program
Occupational Health Division
Environmental Management
2615 South Grand Ave., 6th Floor #607
Los Angeles, CA 90007

SUB: Liquid Air Corporation
Santa Fe Springs, CA

RE: Status Report for Week of 7/7/89

Dear Mr. Garcia:

Attached hereto is the status report on subject for week of 7/7/89 prepared by our consultant Ensco.

Very truly yours

David N. Simon
Manager Regulatory Affairs

DNS/pr

Att.

cc Tom Barber - Liquid Air Corp.

dns/1/144-89

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

District Office 17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.
a subsidiary of environmental system company

FAX TRANSMITTAL FORM

Date of Transmission: 7/24 Time: 2:40

Total number of pages sent, including this cover page: 13

TO: Name: Mark

Company: Liquid AIR

Fax: (213) 693-1156 Phone #:

FROM: Name: AK

Company: ENSCO ENVIRONMENTAL SERVICES, INC.

FAX #: (714) 756-5317 Phone #: (714) 756-8666

SUBJECT: Mark, after you are done, please FAX the paperwork to Polly Teague @ OSCO FAX# 818-334-9804. Please call me if you have any questions. Thank you for your attention!

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL US AT (714) 756-8666 AS SOON AS POSSIBLE. THANK YOU.

WE ARE TRANSMITTING ON A RICOH RAPICOM 510

SPENT SOLVENT WASTE
LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: LIQUIDAIR CORP. CWMI Profile Number: LAXJ36411

EPA Hazardous Waste Number: NA Manifest Number: 88327960 B

This form is submitted to OSCO in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☐ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

THIS WASTE IS NOT SUBJECT TO LANDBAN RESTRICTIONS

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature Title Date

Copyright: November 1988

November, 198

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	.44	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 105 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*

☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.

☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/8/90.*

SPENT SOLVENT WASTE

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: LIQUID AIR CORP. CWMI Profile Number: LAX J36423

EPA Hazardous Waste Number: F001 Manifest Number: 88327960-9

This form is submitted to OIL + SOLVENT PROCESS CO. in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☒ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature Title Date

Copyright: November 1986

November, 198

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	.44	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

- ☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*
- ☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.
- ☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/9/90.*

SPENT SOLVENT WASTE

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: LIQUID AIR CORP. CWMI Profile Number: LAX J36424 3

EPA Hazardous Waste Number: F003 Manifest Number: 88327960 - D

This form is submitted to OSCO in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☒ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature Title Date

Copyright: November 1988

November, 198

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters		All Other Wastes
Acetone	0.05		0.59
n-Butyl alcohol	5.0		5.0
Carbon disulfide	1.05		4.81
Carbon tetrachloride	0.05		0.96
Chlorobenzene	0.15		0.05
Cresols	2.82		0.75
Cresylic acid	2.82		0.75
Cyclohexanone	0.125		0.75
1,2-Dichlorobenzene	0.65		0.125
Ethyl acetate	0.05		0.75
Ethyl benzene	0.05	X	0.053
Ethyl ether	0.05		0.75
Isobutanol	5.0		5.0
Methanol	0.25		0.75
Methylene chloride	0.20		0.96
Methylene chloride (from pharmaceutical industry)	.44		0.96
Methyl ethyl ketone	0.05		0.75
Methyl isobutyl ketone	0.05		0.33
Nitrobenzene	0.66		0.125
Pyrdine	1.12		0.33
Tetrachloroethylene	0.079		0.05
Toluene	1.12	X	0.33
1,1,1-Trichloroethane	1.05		0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05		0.96
Trichloroethylene	0.062		0.091
Trichlorofluoromethane	0.05		0.96
Xylene	0.05	X	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

- ☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*
- ☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.
- ☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/8/90.*

SPENT SOLVENT WASTE

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: LIQUIDAIR CORPORATION CWMI Profile Number: LAXJ36410

EPA Hazardous Waste Number: F001 Manifest Number: 88327960-C

This form is submitted to OSCO in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☒ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268 32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature Title Date

Copyright: November 1988

November, 1988

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	.44	0.98
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

- ☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*
- ☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.
- ☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/8/90.*

SPENT SOLVENT WASTE

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: LIQUID AIR CORP. CWMI Profile Number: LAX 536412

EPA Hazardous Waste Number: F003 Manifest Number: 88327860 - CONTINUATION A

This form is submitted to OSCO in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☒ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature Title Date

Copyright: November 1986

November, 19

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	.44	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

- ☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*
- ☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.
- ☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/8/90.*

LIQUID AIR CORPORATION
2121 N. California Blvd.
Walnut Creek, CA 94596
Telephone: (415) 977-6500

BY FEDERAL EXPRESS

June 20, 1989

Mr. Miguel Garcia, R.S.
County of Los Angeles
Occupational Health Division, Environmental Management
2615 South Grand Avenue, 6th Floor #607
Los Angeles, CA 90007

SUB: Documents

Dear Mr. Garcia:

Per your request at the Hearing on 6/7/89, enclosed herewith are the documents I referred to describing our activities and efforts the past year in connection with this matter. Also enclosed is the FOIA documents, we received from EPA Region IX regarding the Casmalia and Romic facilities.

Very truly yours

David N. Simon
Manager Regulatory Affair

DNS/pr

Encl.

cc: Tom Barber - SF Springs

dns/1/132-89

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

PRC MANIFEST MASTER LIST 6/30

Packaging Date 6/29/89

Generator LIQUID AIR

Project Number 5575

Drum Type	Drum #	Description	WAS	WPS #	Manifest #
17E55Gal	1	CRWO (LIQUID) MOTOR OIL	(WAS # S47)	PRC	87919684
~~"~~	~~2~~	~~"~~	~~S55~~	~~"~~	~~"~~
~~"~~	~~3~~	~~"~~ was returned because that solids	~~S45~~	~~"~~	~~"~~
"	4	"	S47	"	"
"	5	"	S44	"	"
"	6	"	S43	"	"
"	7	"	S39	"	"
"	8	"	S56	"	"
"	9	"	S21	"	"
"	10	"	S57	"	"
"	11	"	S40	"	"
"	12	"	S59	"	"
"	13	"	S46	"	"
"	14	"	S9	"	"
"	15	"	S147	"	"
"	16	"	S55	"	"

DICE 02553

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-88)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000021160
Manifest Document No.: 17684

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
LIQUID AIR CORPORATION
[illegible]
[illegible] CA [illegible]

4. Generator's Phone (213) 145-[illegible]

A. State Manifest Document Number: 87319684

B. State Generator's ID: SYCHB3064 1202

5. Transporter 1 Company Name: [illegible]
6. US EPA ID Number: CA[illegible]

C. State Transporter's ID: 912042

D. Transporter's Phone (714) 756-[illegible]

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
PRC
[illegible] EAST [illegible] STREET
[illegible] CA [illegible]

10. US EPA ID Number: [illegible]

G. State Facility's ID:

H. Facility's Phone: (213) 595-6597

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. CALIFORNIA REGULATED WASTE ONLY (LIQUID)	15	DN	620	G	State 221 / EPA/Other NA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NA. DRUM NO.: 13-15, 16 (NO #2)

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible]
Signature: [illegible]
Month Day Year: [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible]
Signature: [illegible]
Month Day Year: [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Loren Brays
Signature: [illegible]
Month Day Year: [illegible]

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/87)
EPA 8700—22
(Rev. 9-86) Previous editions are obsolete.

GREEN: HAULER RETAINS

INSTRUCTIONS ON THE BACK

DICE 02554

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000021160 — Manifest Document No.:

2. Page 1 of — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
LIQUID AIR CORPORATION
8832 DICE RD
SANTA FE SPRINGS, CA 90670

4. Generator's Phone (213) 945-1383

A. State Manifest Document Number: 87919684

B. State Generator's ID: SYCHB306412202

C. State Transporter's ID:

D. Transporter's Phone (714) 756-8666

E. State Transporter's ID:

F. Transporter's Phone:

G. State Facility's ID:

H. Facility's Phone (213) 595-6597

5. Transporter 1 Company Name: ENSCO ENVIRONMENTAL SERVICES INC — 6. US EPA ID Number: CAD980815054

7. Transporter 2 Company Name: — 8. US EPA ID Number:

9. Designated Facility Name and Site Address:
PRC
1835 EAST 29th STREET
SIGNAL HILL, CA 90806

10. US EPA ID Number: CAT080011059

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. CALIFORNIA REGULATED WASTE ONLY (LIQUID)	[illegible]	DN			State 221 / EPA/Other NA
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
11A. DRUM NO.: ~~1-15~~ 1,3-15,16

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
WEAR APPROPRIATE PROTECTIVE CLOTHING

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T. I. BARBER — Signature: [signature] — Month Day Year: 06 29 89

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/87)
EPA 8700—22
(Rev. 9-86) Previous editions are obsolete.

White: TSDF SENDS THIS COPY TO DCHS WITHIN 30 DAYS
To: P.O. Box 3000, Sacramento, CA 95812

INSTRUCTIONS ON THE BACK

DICE 02555

G Mson

I-225

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213)620-4460

COUNTY ENGINEER
REPLY ACTN INFO
REFD TO
JUL 12 10 40 AM '76
REPT PREPREPLY
HTB JTR IHA
GJF CWJ RTR

RECEIVED
JUL 12 1976
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

JUL 9 - 1976

Liquid Air Inc.
8832 Dice Road
Santa Fe Springs, California 90670

ATTENTION: Mr. C.W. Aldrich, Plant Manager

RE: Application for Waste Discharge Requirements (NPDES)

Gentlemen:

This will confirm the discussion on July 2, 1976, among your Mr. C.W. Aldrich, and Messrs. N.O. Acedera and L.V. Matienzo of this Board's staff.

An inspection of your facilities on July 2, 1976, disclosed that you intermittently discharge cooling water from your acetylene - filling operations into the unlined ditch south of your property. In addition, it was learned that you also propose to discharge acytelene production process wastes into the same ditch.

Section 13376 of the California Water Code requires that any person discharging wastes or proposing to discharge wastes to waters of the United States file a request for waste discharge requirements.

The matter was discussed with your Mr. Aldrich, who was informed that either there must be no discharge to surface waters or waste discharge requirements must be applied for before any discharge can continue.

It is requested that you provide a written report to this Board, detailing the method of disposal of the above-described wastes decided upon. Should you choose to file for waste discharge requirements, the necessary forms to enable you to do so, together with the filing fee schedule, are enclosed.

The written report and/or completed application with the appropriate filing fee, must be submitted to this office by July 26, 1976.

If during review of your application it appears that additional information is necessary, you may be contacted and required to provide additional information. You will be formally notified when your application has been reviewed and is considered complete. In most cases, waste discharge requirements will be requiring that your discharge meet established water quality and effluent standards on a prescribed time schedule.

cwb

DICE 02556

If you have questions concerning this matter, please call Mr. Miller F. Chambers of this Board's staff.

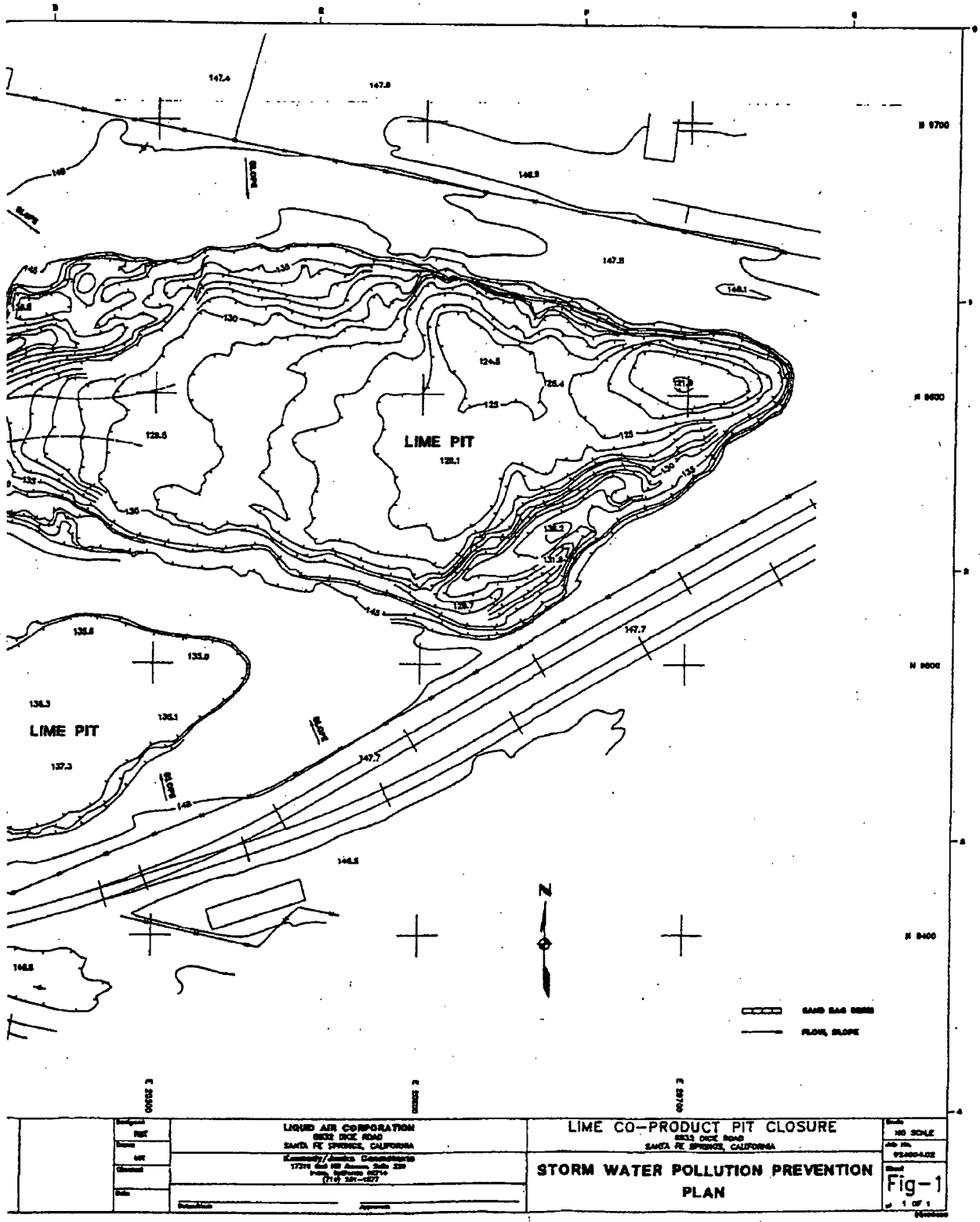
Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board, Legal Division
ATTN: Harry Schueller
Los Angeles County Engineer
Project Planning And Pollution Control Division

Enclosures

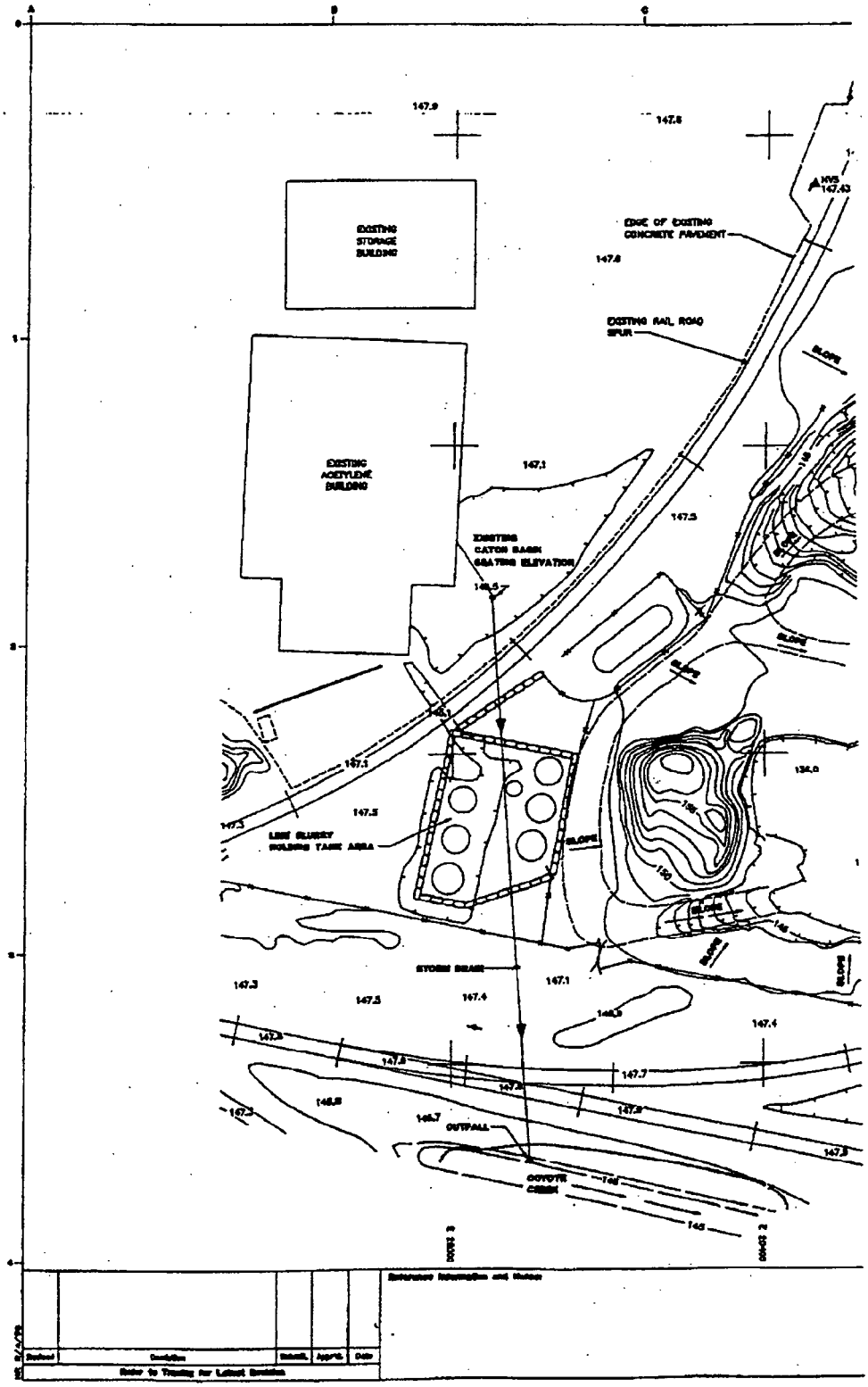


LIQUID AIR CORPORATION
9832 DICE ROAD
SANTA FE SPRINGS, CALIFORNIA

LIME CO-PRODUCT PIT CLOSURE
9833 DICE ROAD
SANTA FE SPRINGS, CALIFORNIA

STORM WATER POLLUTION PREVENTION PLAN

Fig-1


EXISTING STORAGE BUILDING
EXISTING ACETYLENE BUILDING
EDGE OF EXISTING CONCRETE PAVEMENT
EXISTING RAIL ROAD SPUR
EXISTING CATCH BASIN GRATING ELEVATION
LIME SLURRY HOLDING TANK AREA
STORM DRAIN
OUTFALL
COYOTE CREEK
SLOPE
147.9
147.8
147.6
147.1
147.5
147.3
147.4
147.7
146.7
Reference Information and Notes
Revised
Description
Submit.
Appr'd.
Date
Refer to Tracing for Latest Revision

DICE 02559

[redacted]-62

Mr. John E[redacted]
Regional E[redacted]
Los Cerritos Regional Office

CAL OXYGEN COMPANY
8832 Dice Road
City of Santa Fe Springs

We have approved the installation of a Nottingham FJ-14 interceptor and an S-a-156 at the existing building of the Cal Oxygen Company located at 8832 Dice Road in the City of Santa Fe Springs.

Waste from the floor trenches, which include pump drippings, floor washdown and pump leakage, will be discharged through the Nottingham interceptor placed outside the building and then discharged to the sanitary sewer located in Dice Road.

The S-a-156 will receive boiler blowdown, cooling tower bleedoff and backwash from a Zeolite water softener. These wastes will be connected to the sewer at the discharge end of the Nottingham interceptor.

Mr. Delaney, Plant Manager, has been informed that the house connection sewer shall be constructed with a grade of not less than one percent. It is understood that there will be no plumbing in the existing building. All piping to be constructed in the existing building will be considered as process piping. We are approving these installations by lettergram with the understanding that Mr. Delaney will submit four copies of as-built plans upon completion of the above construction.

Original Signed

Bernard Valasky
Associate Civil Engineer
Industrial Waste Division

BIV-LQ:rst
bc: Region 10
I-225-1H
A-Plumbing Releases
Valasky
Quintana

DICE 02560

COUNTY OF LOS ANGELES • FIRE DEPARTMENT
PREVENTION BUREAU
HAZARDOUS WASTE CONTROL PROGRAM

CASE UPDATE / PHONE LOG

Company / Case Name	Liquid Air Corp	Log #

DATE	HMS INIT.	FINDINGS / REMARKS
		8/32 Dice Rd
		SFS
2/11/93	TWK	Mtg held w/ P. Kani, project officer and representatives of RP, their consultant, Kennedy Jenks, and City of SFS staff Koestre of F.D., Lazaretto? consult.? to City, and a planning dept. rep? Discussed site cleanup issues in relation to surface water discharge EA. Gave copy of 2/2/93 letter from HHMD to RP to City staff. Discussed contents of "report" titled "Conceptual Closure Plan" dated 9/4/92: & rec'd 2 more copies. Advised the report did not meet standards of SMW guide previously given to Brian Leger and RP's consult. Advised site must be characterized prior to approval to backfill or any remediation proposal. Discussed hazardous waste classification scheme of Calif vs. federal and advised cleanup levels were not haz waste levels but rather public health/environmental risk based levels. Advised that as a generator with multiple hazardous wastes & potential contaminants, that all potential site contaminants must be addressed, especially since past records indicated 111 TCA and acetone found in pits and those materials had history of use on site. RP consultants insisted $CaOH_2$ not hazardous, & questioned HHMD authority. & strongly advised no site cleanup to proceed w/o approved workplan. City staff had minimal comment. Bold & discuss M

Page

HWCP • 5/92 • v 2.1

DICE 02561

COUNTY OF LOS ANGELES • FIRE DEPARTMENT
PREVENTION BUREAU
HAZARDOUS WASTE CONTROL PROGRAM

CASE UPDATE / PHONE LOG

Company / Case Name	Liquid Air Corp	Log #

DATE	HMS INIT.	FINDINGS / REMARKS
		8832 Dice Rd - SFS
2/10/93	TWK	Conf TC w/ Bob Kurlupendall of Kennedy Jenks. He said he had David Simon and Bob Treadmore of Liquid Air on line also. He insisted on mtg tomorrow Thur. AM. I advised I had set aside tentative time of 9-10 AM for Bob Lepr of Liquid Air but that Mr. Kasman may need to be involved. I advised I had met 2/9/93 PM w/ Chief Wilson of SFS Fire Dept re site & that I had just gotten off phone w/ Steve Koster of SFS FD (310 9449713) requesting mtg on 2/16 @ ≈ 3 PM @ SFS. He wanted to meet tomorrow & agreed. I suggested he review sec 66265.111 & .114 re generator closure & that I would not argue the closure issue, but discuss CU procedures. Advised Mr. Kang, project officer, off sign. Advised I had spoken w/ Hamid Saebfar acting SMU sup. in Region 3 & DTSC supported need for closure.
2/10/93	TWK	TC w/ Dennis Dasher of RWQCB 213 266 7518. Advised I considered this site a serious concern under Water Code due to SW discharge to Coyote Creek & threat to gw from surface impoundment use over ≈ 40 yr. He will look into files & I advised him of tentative meeting @ SFS for Tues PM.

Page

HWCP • 5/92 • v 2.1

DICE 02562

COUNTY OF LOS ANGELES • FIRE DEPARTMENT
PREVENTION BUREAU
HAZARDOUS WASTE CONTROL PROGRAM

CASE UPDATE / PHONE LOG

Company / Case Name	Liquid Air Corp.	Log #

DATE	HMS INIT.	FINDINGS / REMARKS
		8832 Dice Rd SFS.
2/9/93	≈ 5PM TWK	Meeting w/ Joe Farbus, Paul Lisak, Richard Gillaspy & myself w/ Fire Chief Wilson of SFS Fire Dept. He said due to councilman of SFS pressure, City ordered RP to close surface impoundments. City staff, city's consultant etc approved closure. Discussed need for protection of public health & that RP had acknowledged they intended to bury waste in place. Advised discharge to Coyote Creek created health & environmental threat and that burying CaOH @ pH ≈ 12 - 12.6 was inappropriate. Advised CaOH was @ listed Haz Waste & pit closure must involve soil decontamination, etc. He requested meetings w/ agency staff, city staff, RP etc. & it was agreed. Hold on

Page

HWCP • 5/92 • v 2.1

DICE 02563

COUNTY OF LOS ANGELES • FIRE DEPARTMENT
PREVENTION BUREAU
HAZARDOUS WASTE CONTROL PROGRAM

CASE UPDATE / PHONE LOG

Company / Case Name	Liquid Air Corp	Log #
DATE	HMS INIT.	8872 Dice Rd FINDINGS / REMARKS
		SFS.
2/9/93	TWK	TC w/ Monju Chakraborti of RWQCB (staff in J. Ross's unit). She said she was calling for Ross & he said Liquid Air's surface impoundment should be handled by surface water unit under ~~[illegible]~~ Josh Workman. She said there was no longer a surface impoundment unit. I went over concern re/site & she said Ross determined Workman's unit would handle
2/9/93	TWK	TC w/ Josh Workman of RWQCB I outlined the case as I knew it. He was apparently surprised Ross would transfer cap to his unit. He acknowledged someone @ RWQCB should be involved & said he would discuss in-house & someone would call back re. their intention for follow-up. Hold on

Page

HWCP • 5/92 • v 2.1

DICE 02564

COUNTY OF LOS ANGELES • FIRE DEPARTMENT
PREVENTION BUREAU
HAZARDOUS WASTE CONTROL PROGRAM

CASE UPDATE / PHONE LOG

Company / Case Name	Liquid Air Corp.	Log #

DATE	HMS INIT.	FINDINGS / REMARKS
		8832 Dice Rd
		Santa Fe Springs 90670
		TG 61 B-2
2/2/93	TWK	Several discussions w/ Marty Kasman re: haz waste release to ground of Ca OH which contaminated Coyote Creek. He has found that a surface impoundment pit is being closed by RP w/o approval & he is concerned waste will be buried on-site. After various discussions & phone calls a letter was generated & hand delivered by Kasman to RP.
2/3/93	TWK	Met w/ Marty Kasman w/ Bryan Leger Jr of Liquid Air & R Bruce Thomas of Kennedy Jenks consultants. They acknowledged that waste was to be mixed w/ soil and buried. I advised haz waste levels were not clean-up levels & that workplan must be submitted & approved. Advised calcium hydroxide is all listed waste & pH > 12.5 in some samples. Advised clean-up levels must be protective of public health and the environment & advised ground water resource impact needs to be addressed. Recd map of site and 9/4/92 "Conceptual Closure Plan" Will log & assign. TK

Page

HWCP • 5/92 • v 2.1

DICE 02565

76L268

LOS ANGELES COUNTY LETTERGRAM

TO	Phil Kani	FROM	Tom Klinger

Subject — Liquid Air Corp.
8832 Dice Rd.
Santa Fe Springs 90670
T6 61 B2
Log # 930271-326

Date 2/3/93
re/ 2/8/93

Phil

New assignment. Please see me to discuss. This is an enforcement unit (M. Kraemer) referral. due to discharge of caustic liquid to Coyote Creek. Discharge was from a surface impoundment/pit containing Calcium carbonate/hydroxide. pH 12-14? of discharge & pit. RL was in process of "closing" by mixing waste & soil and capping. See letter to RL dated 2/2/92.
I believe RWQCB, DTSC, AQMD should be concerned. --- especially RWQCB. Pit has been in existence for a 30 years. I believe there may be impact to gw & RWQCB should be involved as toxic pit or surface impoundment closure. Please see Marty for file review & coordination.

DICE 02566

INSPECTOR'S REPORT

TO: Mr D E Coats

FROM: Mr. H.R. Vaughn

FILE: Burkett Oxygen Co. (I-225-10)
8838 Dice Rd. (Los Nietos)

DATE: 4-7-55

REPORT: An ordinance #6130 inspection was made today at the above plant. Mr. I. C. Green foreman was contacted and the following information obtained:

1. Cooling water is recirculated.

2. All items of permit #6 were complied with.

3. No violations of ordinance #6130 were observed.

76L550L15 S&E 658 Glb 1-54

DICE 02567

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

36
(Ion Exchange Resin)?

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 36	9050995

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	300
Trichloroethene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
trans-1,2 Dichloroethene	50	N.D.
Methylene Chloride	50	N.D.
Chloroform	50	N.D.
Bromodichloromethane	50	N.D.
Dibromochloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Chloromethane	50	N.D.
Chloroethane	50	N.D.
Vinyl Chloride	50	N.D.
1,2-Dichloropropane	50	N.D.
1,3-Dichloropropenes	50	N.D.
Carbon Tetrachloride	50	N.D.
Trichlorofluoromethane	250	N.D.
1,1,2-Trichloroethane	50	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 36	9050995

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Benzene	50	N.D.
Toluene	50	70
Ethylbenzene	50	N.D.
Chlorobenzene	50	N.D.
Xylenes (sum of 3 isomers)	50	N.D.
Acetone	250	N.D.
2-Butanone	250	N.D
Carbon Disulfide	100	N.D.
Vinyl Acetate	100	N.D.
4-Methyl-2-pentanone	100	N.D.
2-Hexanone	100	N.D.
Styrene	100	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	94 %
Toluene-d8	86 %
4-Bromofluorobenzene	100 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

ensco

WASTE MATERIAL DATA SHEET

No. 83804

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES
MAILING ADDRESS: 17062 B MURPHY AVENUE
IRVINE CA - 92714
XXXXXXXXXX
FACILITY ADDRESS: SAME
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
MAILING ADDRESS: 8832 DICE RD.
SANTA FE SPRINGS CA 90670
FACILITY ADDRESS: SAME
EPA I.D. NO.: CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME: SPILL RESIDUE
Is this waste normally generated at FACILITY?
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURER SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data conditions of waste and materials used to process.

HEALTH	2				
FLAMMABILITY	0				
REACTIVITY	0				

Attachments YES

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: WHITE
ODOR: X NONE ☐ STRONG ☐ MILD
☐ LIQUID ____ % FREE
X SOLID
☐ SLUDGE
☐ POWDER
PHASES: X SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.4				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:
ATTACHMENTS X
Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify:
ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D002
D004
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION RQ

DOT hazardous material X
PROPER SHIPPING NAME: WASTE CORROSIVE SOLID NOS
HAZARD CLASS: CORROSIVE ID #: UN 1759 R/Q
ANTICIPATED VOLUME: ____ GAL. ____ YDS. 1800 LBS. PER: ☐ ONE TIME ☐ WK ☐ MO X YR OTHER ____, in bulk? X by rail?
Specify type and size of container: 17H 55GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 ☐ 1.0-1.2 ☐ 1.2-1.4 X 1.4-1.7 ☐ >1.7 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 X > 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 Actual UNK
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 X >20 Actual
5 pH: ☐ <2 ☐ 2-6 ☐ 6-8 ☐ 8-10 X 10-12.5 ☐ >12.5 Actual NaOH Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 Actual UNK

7 FLASH POINT (closed cup): ☐ <100°F ☐ 100°-140°F ☐ 140°-200°F X >200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 Actual UNK
9 HALOGENS (% WT.): BROMINE X <1; CHLORINE X <1; FLUORINE X <1; 1-10 ☐; 10-50 ☐; >50 ☐; ACTUAL

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		ND	P		ND	PCB		ND
As		0.0	Se		ND	Sb		ND	CYANIDES		ND
Ba		ND	Cu		1.2	Si		ND	SULFIDES		ND
Cd		ND	K		270	organic silicon only			DIOXIN		ND
Cr		ND	Na		2000	Sn		ND	OTHERS (SPECIFY)		
Hg		ND	Mn		ND	Zn		16.1			

ATTACHMENTS

I

Does waste contain SOLVENTS? X If yes, specify
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE | TITLE | DATE 6-26-89

PC | ENSCO USE ONLY | DATE RECEIVED

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DICE 02570

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

37

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#37

Sample Number
9050996

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	8.0
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	1.3
Iron	(7380)	NA	NA	1.0	210
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	6.1
Calcium	(7140)	NA	NA	1.0	400
Sodium	(7770)	NA	NA	1.0	2000
Magnesium	(7450)	NA	NA	1.0	40
Potassium	(7610)	NA	NA	1.0	270

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

ensco

WASTE MATERIAL DATA SHEET

No. 83802

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES
MAILING ADDRESS: 17062 B MURPHY AVE
IRVINE CA 92714
FACILITY ADDRESS: SAME
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
MAILING ADDRESS: 8832 DICE RD
SANTA FE SPRINGS CA 90
FACILITY ADDRESS: SAME
EPA I.D. NO.: CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME: Alkaline Cleaner
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURING SIC
Does waste vary by Amount? X Composition? X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, including data constituents of waste and separate used in process.

HEALTH	2				
FLAMMABILITY	0				
REACTIVITY	0				

Attachments yes

D GENERAL CHARACTERISTICS (at 70°F unless specified)

COLOR: WHITE
ODOR: ☒ NONE ☐ STRONG ☐ MILD

☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER

PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.4				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

ATTACHMENT X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?

If yes, specify:

ATTACHMENT

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D004 D002
D008
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: WASTE CORROSIVE SOLID NOS
HAZARD CLASS: CORROSIVE ID #: UN1759 R/Q
ANTICIPATED VOLUME ____ GAL ____ YDS., 1800 LBS., PER: ☐ ONE TIME ☐ wk ☐ mo ☒ yr. OTHER ____, in bulk? X by rail?
Specify type and size of container: DRUMS

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☒ 1.4-1.7 ☐ 0.8-1.0 ☐ >1.7 ☐ 1.0-1.2 ☐ 1.2-1.4 Actual

2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 ☒ > 10,000 Actual

3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual

4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☒ >20 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 Actual

5 pH: ☐ <2 ☐ >12.5 ☐ 2-6 ☐ 6-8 ☐ 8-10 ☒ 10-12.5 Actual Corrosive

6 BTU's 1000/lbs.: ☐ <1 ☐ 12-16 ☐ 1-4 ☐ >16 ☐ 4-8 ☐ 8-12 UN Actual

7 FLASH POINT (closed cup): ☐ <100°F ☐ 100°-140°F ☐ 140°-200°F ☒ >200°F Actual

8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 UNK Actual

9 HALOGENS (% WT.): ☐ BROMINE ☐ CHLORINE ☐ FLUORINE

	<1	1-10	10-50	>50	ACTU
BROMINE	☐	☐	☐	☐	☐
CHLORINE	☐	☐	☐	☐	☐
FLUORINE	☐	☐	☐	☐	☐

10 TOXICITY

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		6.0	P		ND	PCB	ND	
As		11	Se		ND	Sb		ND	CYANIDES	ND	
Ba		ND	Cu		ND	Si		ND	SULFIDES	ND	
Cd		0.43	K		260	organic silicon only			DIOXIN	ND	
Cr		3.7	Na		91,000	Sn		ND	OTHERS (SPECIFY)		
Hg		ND	Mn		ND	Zn		18			

I

Does waste contain SOLVENTS? X If yes, specify
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE: [signature] TITLE: Pt. Mgr. DATE: 6-26-89

ENSCO USE ONLY: PC ____ DATE RECEIVED ____

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Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Alka

38

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#38

Sample Number
9050997

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	11
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	0.43
Chromium	(7191)	560	2500	0.5	3.7
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	15
Iron	(7380)	NA	NA	1.0	1200-
Lead	(7420)	5.0	1000	1.0	6.0
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	18
Calcium	(7140)	NA	NA	1.0	180
Sodium	(7770)	NA	NA	1.0	91000
Magnesium	(7450)	NA	NA	1.0	28
Potassium	(7610)	NA	NA	1.0	260

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

ensco

WASTE MATERIAL DATA SHEET

No. 83778

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIRONMENTAL SERVICES INC
MAILING ADDRESS: 17062-B MURPHY AVE IRVINE CA 92714
FACILITY ADDRESS: SAME
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
MAILING ADDRESS: 8832 DICE RD SANTA FE SPRINGS CA 90670
FACILITY ADDRESS: SAME
EPA I.D. NO. CAL 000021146

B WASTE IDENTIFICATION

WASTE NAME: Hydrocarbon ION EXCHANGE
Is this waste normally generated at FACILITY? (Y) (N)
Name of Process Generating Waste: INDUSTRIAL GAS MANUFACTURER SIC
Does waste vary by Amount? X Composition? (Y) X Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data compliance of waste and materials used in process.

HEALTH	2				
FLAMMABILITY	1				
REACTIVITY	0				

Attachments

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: beige
ODOR: X NONE ☐ STRONG ☐ MILD
☐ LIQUID ____ % FREE
X SOLID
☐ SLUDGE
☐ POWDER
PHASES: X SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1-7				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ATTACHMENT X

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA? ATTACHMENT
If yes, specify:

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes:
D007 ____ ____ ____
D008 ____ ____ ____
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: HAZARDOUS WASTE SOLID NOS
HAZARD CLASS: ORME ID #: NA 9189 R/Q
ANTICIPATED VOLUME ____ GAL. ____ YDS. 1000 LBS. PER
☐ ONE TIME ☐ WK ☐ MO X YR. OTHER ____ in bulk? by rail?
Specify type and size of container: 17H 55GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 ☐ 1.0-1.2 X 1.2-1.4 ☐ 1.4-1.7 ☐ >1.7 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 X 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 UNK Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 X 0.5-20 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 Actual
5 pH: ☐ <2 ☐ 2-6 X 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 7 Actual Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 UNK Actual

7 FLASH POINT (closed cup): ☐ <100°F ☐ 100°-140°F ☐ 140°-200°F ☐ >200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 UNK Actual
9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACT
BROMINE	X	☐	☐	☐	☐
CHLORINE	X	☐	☐	☐	☐
FLUORINE	X	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag	unk		Pb		100 ppm	P	unk		PCB	ND	
As			Se	unk		Sb			CYANIDES	ND	
Ba			Cu			Si			SULFIDES	ND	
Cd			K			organic silicon only			DIOXIN	ND	
Cr		100 ppm	Na			Sn	unk		OTHERS (SPECIFY)		
Hg	unk		Mn			Zn					

ATTACHMENTS

I

Does waste contain SOLVENTS? If yes, specify Tr amount of
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE: Halogenated Hydrocarbons / TR Amounts of Organic Solvents / Tr amounts of Petroleum Hydro Carbons

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE: [signature] TITLE: Plant Mgr DATE: 2-6-89

ENSCO USE ONLY: PC ____ DATE RECEIVED ____

Need signature

LAB COPY

DICE 02574

NO. 83777

A CUSTOMER INFORMATION

CUSTOMER NAME: Ensco Environmental Services, Inc.
MAILING ADDRESS: 17062 ~~Environmental~~ Murphy Avenue Irvine, CA 92714
~~FACILITY ADDRESS~~: Same
EPA I.D. NO. CAD 980815054

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corporation
MAILING ADDRESS: 8832 Dice Rd Santa Fe, CA Springs CA 906
FACILITY ADDRESS: Same
EPA I.D. NO. CAL 000021160

B

WASTE IDENTIFICATION
WASTE NAME: PAINT LAB PACK
Is this waste normally generated at FACILITY? ✓
Name of Process Generating Waste: Industrial Gas Manufacturer SIC
Does waste vary by Amount? Composition? Specify

C

NFPA HAZARD CODE (x appropriate boxes)
Enclose copies of safety data sheets applicable to waste, include data constituents of waste and materials used in process.
Attachments: MSDSS

HEALTH	2
FLAMMABILITY	4
REACTIVITY	0

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: ORANGE
ODOR: ☐ NONE ☐ STRONG ☐ MILD
☑ LIQUID 100 % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER
PHASES: ☐ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL					
DENSITY					
% SOLIDS					

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ATTACHMENT ✓
Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify: ATTACHMENT

F RCRA INFORMATION

Is this a USEPA hazardous waste?
Please give USEPA hazardous waste codes:
D001
D008
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION DOT hazardous material

PROPER SHIPPING NAME: Waste Paint Related Material
HAZARD CLASS: Flame LIQ ID #: NA1263 R/Q
ANTICIPATED VOLUME: ~~1000~~ GAL. YDS. LBS. PER
☐ ONE TIME ☐ WK ☐ MO ☑ YR OTHER, in bulk? by rail?
Specify type and size of container: 17TH 55GAL

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY: ☐ <0.8 ☐ 0.8-1.0 ☐ 1.0-1.2 ☐ 1.2-1.4 ☐ 1.4-1.7 ☐ >1.7 Actual
2 VISCOSITY (centipoise): ☐ 1-100 ☐ 100-1,000 ☐ 1,000-10,000 ☐ > 10,000 Actual
3 ASH (%WT.): ☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 Actual
4 TOTAL SUSPENDED SOLIDS (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 ☐ >20 Actual
5 pH: ☐ <2 ☐ 2-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 Actual Constituent
6 BTU's 1000/lbs.: ☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 Actual
7 FLASH POINT (closed cup): ☑ <100°F ☐ 100°-140°F ☐ 140°-200°F ☐ >200°F Actual
8 SULFUR (% WT.): ☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 Actual
9 HALOGENS (% WT.): <1 1-10 10-50 >50 ACT
☐ BROMINE ☐ ☐ ☐ ☐ ☐
☐ CHLORINE ☐ ☐ ☐ ☐ ☐
☐ FLUORINE ☐ ☐ ☐ ☐ ☐

LAB PACK

10 CONSTITUENTS

TOTAL (%WT.)	EP EXTRACT (PPM)	TOTAL (%WT.)	EP EXTRACT (PPM)	TOTAL (%WT.)	EP EXTRACT (PPM)	TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		Pb		P		PCB	
As		Se		Sb		CYANIDES	
Ba		Cu		Si		SULFIDES	
Cd		K		organic silicon only		DIOXIN	
Cr		Na		Sn		OTHERS (SPECIFY)	
Hg		Mn		Zn			

LAB PACK

I

Does waste contain SOLVENTS? If yes, specify
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE: [signature] TITLE: PLANT MGR DATE: 7-6-89

LAB

~~Note~~ ~~Signature~~

~~DO NOT~~

DICE 02575

ENSCO ENVIRONMENTAL SERVICES, INC.
HAZARDOUS WASTE INVENTORY LIST

DISPOSAL METHOD: INCINERATOR

GENERATOR	GENERATOR'S EPA #	EPA WASTE ID#
LIQUIDAIR CORP.	CAL000021160	D001, D008

DRUM #	DATE	MANIFEST DOCUMENT #	PROFILE #	CAL WASTE #
534A	6/30/89		83777	

US DOT PROPER SHIPPING NAME, HAZARD CLASS, AND ID#	LABELS REQUIRED
WASTE PAINT RELATED MATERIAL, FLAMMABLE LIQUID, NA1263	FLAMM. LIQUID

GROSS WEIGHT (LBS)	CONTAINER TYPE	R Q	EH	EH #
	17E H 55gal	YES___ NO X	YES___ NO X	

ITEM#	QTY X CTR SIZE	MATERIAL DESCRIPTION: CHEM NAME, PROD #, MANU., ADDRESS, PHONE	EPA ID #	WT OF CONT.	EHRQ
1	[redacted]x 1gal	KENCO, Sumter, SC 29150			
		Solid Shell Cylinder Enamel			
		Burnt orange 185-8919			
		contains petroleum distillates			

CHEMIST/TECHNICIAN NAMES: A. KHAJETOORIANS

THIS LIST CONTINUES: YES___ NO X

THIS IS PAGE 1 OF 1

DICE 02576

ensco

WASTE MATERIAL DATA SHEET

No. 83808

A CUSTOMER INFORMATION

CUSTOMER NAME: ENSCO ENVIORNMENTAL Services
MAILING ADDRESS: ~~8832 DICE RD.~~ 17062 Murphy Ave
Irvine CA. 92714
FACILITY ADDRESS: Job # 55135
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: 8832 Dice Rd.
Santa Fe Springs CA
FACILITY ADDRESS: Same
EPA I.D. NO. CAL 0000 21160

B WASTE IDENTIFICATION

WASTE NAME: Activated Charcoal contaminated with
Is this waste normally generated at FACILITY? (Y) (N)
Name of Process Generating Waste: Industrial Gas Manufacture SIC
Does waste vary by Amount? (Y) (N) Composition? (Y) (N) Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste, include data constituents of waste and materials used in process. Analytical

HEALTH	2				
FLAMMABILITY	1				
REACTIVITY	0				

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: Black
ODOR: Slight
☐ NONE ☐ STRONG ☒ MILD

☐ LIQUID ____ % FREE
☒ SOLID
☐ SLUDGE
☐ POWDER

PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER

	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.0				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify:

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA? (Y) (N) ATTACHMENTS
If yes, specify: ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste? X
Please give USEPA hazardous waste codes: 261.24
Toxic by Toxicity Criteria of CFR40
Describe nature of reactivity if D003 waste: F001

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: Hazardous Waste Solid NOS
HAZARD CLASS: ORM-E ID# NA 9189 R/Q
ANTICIPATED VOLUME ____ GAL ____ YDS. 1000 LBS. PER: ☐ ONE TIME ☐ WK ☐ MO ☒ YR OTHER ____ in bulk? X by rail?
Specify type and size of container: 17H - 55gal Drums

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☐ 1.4-1.7
☐ 0.8-1.0 ☐ >1.7
☒ 1.0-1.2 ____ Actual
☐ 1.2-1.4

2 VISCOSITY (centipoise)
☐ 1-100 ____ Actual
☐ 100-1,000
☐ 1,000-19,000
☒ > 10,000

3 ASH (%WT.)
☐ <0.1
☐ 0.1-1.0
☐ 1-5
☐ 5-20 unk Actual
☐ >20

4 TOTAL SUSPENDED SOLIDS (% WT.)
☐ <0.5 ☐ >20
☐ 0.5-2.0 N/A Actual
☐ 2-5
☐ 5-20

5 pH
☐ <2 ☐ >12.5
☐ 2-6 N/A Actual
☒ 6-8
☐ 8-10 ____ Constituent
☐ 10-12.5

6 BTU's 1000/lbs.
☐ <1 ☐ 12-16
☐ 1-4 ☐ >16
☐ 4-8 unk Actual
☐ 8-12

7 FLASH POINT (closed cup)
☐ <100°F ☒ >200°F
☐ 100°-140°F ____ Actual
☐ 140°-200°F

8 SULFUR (% WT.)
☐ <0.5 ☐ >5
☐ 0.5-2.0 unk Actual
☐ 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
☐ BROMINE	☐	☐	☐	☐	☐
☒ CHLORINE	☒	☐	☐	☐	☐ 4600
☐ FLUORINE	☐	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb		ND	P		ND	PCB	ND	
As			Se			Sb			CYANIDES		
Ba			Cu		7	Si			SULFIDES		
Cd			K		4600	organic silicon only			DIOXIN		
Cr			Na		380	Sn		ND	OTHERS (SPECIFY)		
Hg			Mn		ND	Zn					

I

Does waste contain SOLVENTS? If yes, specify 111 Trichloroethane
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

ATTACHMENTS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE ____ TITLE ____ DATE ____

ENSCO USE ONLY
PC
DATE RECEIVED

LAB COPY

DICE 02577

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#41

Sample Number
90501000

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	N.D.
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	7.0
Iron	(7380)	NA	NA	1.0	30-
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	300
Sodium	(7770)	NA	NA	1.0	380
Magnesium	(7450)	NA	NA	1.0	200
Potassium	(7610)	NA	NA	1.0	4600

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 41	90501000

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Benzene	1000	N.D.
Toluene	1000	N.D.
Ethylbenzene	1000	N.D.
Chlorobenzene	1000	N.D.
Xylenes (sum of 3 isomers)	1000	N.D.
Acetone	5000	N.D.
2-Butanone	5000	N.D
Carbon Disulfide	2000	N.D.
Vinyl Acetate	2000	N.D.
4-Methyl-2-pentanone	2000	N.D.
2-Hexanone	2000	N.D.
Styrene	2000	N.D.

N.D. = None Detected above stated Detection Limit

Surrogate Recovery:

1,2-Dichloroethane-d4	99 %
Toluene-d8	92 %
4-Bromofluorobenzene	101 %

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/22/89
Date Reported: 06/23/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
Solid Sample 41	90501000

Volatile Organics by Mass Spectrometry

	Detection Limit ug/kg	Sample Results ug/kg
Tetrachloroethene	1000	N.D.
1,1,1-Trichloroethane	1000	4000
Trichloroethene	1000	N.D.
1,1-Dichloroethane	1000	N.D.
1,2-Dichloroethane	1000	N.D.
1,1-Dichloroethene	1000	N.D.
trans-1,2 Dichloroethene	1000	N.D.
Methylene Chloride	1000	N.D.
Chloroform	1000	N.D.
Bromodichloromethane	1000	N.D.
Dibromochloromethane	1000	N.D.
Bromoform	1000	N.D.
Bromomethane	1000	N.D.
Chloromethane	1000	N.D.
Chloroethane	1000	N.D.
Vinyl Chloride	1000	N.D.
1,2-Dichloropropane	1000	N.D.
1,3-Dichloropropenes	1000	N.D.
Carbon Tetrachloride	1000	N.D.
Trichlorofluoromethane	5000	N.D.
1,1,2-Trichloroethane	1000	N.D.
1,1,2,2-Tetrachloroethane	1000	N.D.
2-Chloroethylvinyl ether	1000	N.D.

N.D. = None Detected above stated Detection Limit

Del Mar Analytical

Gary Steube
Laboratory Director

Method of Analysis: EPA 8240

NO. 83816

A CUSTOMER INFORMATION

CUSTOMER NAME: ~~Liquid Air Inc~~ ENSCO Environmental Services

MAILING ADDRESS: 17062 Murphy Ave Irvine CA.

FACILITY ADDRESS: Job # 5505

EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Inc

MAILING ADDRESS: Dice Rd Santa Fe Springs CA

FACILITY ADDRESS

EPA I.D. NO. CAL 000021160

B WASTE IDENTIFICATION

WASTE NAME: Paint with Water

Is this waste normally generated at FACILITY? (Y) (N)

Name of Process Generating Waste: Spray Booth Scrubber SIC

Does waste vary by Amount? (Y) (N) Composition? (Y) (N) Specify

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

Attachments

HEALTH	2			
FLAMMABILITY	3			
REACTIVITY	0			

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR Yellow / Black

ODOR Solvent

☐ NONE ☐ STRONG ☒ MILD

☒ LIQUID ____ % FREE ☐ SOLID ☐ SLUDGE ☐ POWDER

PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4
% WT. of TOTAL	100			
DENSITY	1.0			
% SOLIDS	10%			

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ATTAC

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA? ATTAC

If yes, specify:

F RCRA INFORMATION

Is this a USEPA hazardous waste? (Y) (N)

Please give USEPA hazardous waste codes:

D001 D008

D007

Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X

PROPER SHIPPING NAME Waste Flammable Liquid NOS

HAZARD CLASS Flammable Liquid ID # UN1993 R/Q D001

ANTICIPATED VOLUME 1000 GAL ____ YDS. ____ LBS.

☐ ONE TIME ☐ WK ☒ MO ☐ YR. OTHER ____ in bulk? X by rail?

Specify type and size of container: 17 55 Drums

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY

☐ <0.8 ☐ 1.4-1.7

☒ 0.8-1.0 ☐ >1.7

☐ 1.0-1.2 ____ Actual

☐ 1.2-1.4

2 VISCOSITY (centipoise)

☒ 1-100 ____ Actual

☐ 100-1,000

☐ 1,000-19,000

☐ > 10,000

3 ASH (%WT.)

☐ <0.1

☐ 0.1-1.0

☐ 1-5

☐ 5-20 unk Actual

☐ >20

4 TOTAL SUSPENDED SOLIDS (% WT.)

☐ <0.5 ☐ >20

☐ 0.5-2.0 ____ Actual

☐ 2-5

☒ 5-20

5 pH

☐ <2 ☐ >12.5

☐ 2-6 ____ Actual

☒ 6-8

☐ 8-10 ____ Constituent

☐ 10-12.5

6 BTU's 1000/lbs

☐ <1 ☐ 12-1

☐ 1-4 ☐ >16

☐ 4-8 ____

☐ 8-12

7 FLASH POINT (closed cup)

☒ <100°F ☐ >200°F

☐ 100°-140°F unk Actual

☐ 140°-200°F

8 SULFUR (% WT.)

☐ <0.5 ☐ >5

☐ 0.5-2.0 unk Actual

☐ 2-5

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	
☐ BROMINE	☒	☐	☐	☐	☐
☐ CHLORINE	☒	☐	☐	☐	☐
☐ FLUORINE	☒	☐	☐	☐	☐

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT
Ag	unk		Pb	unk <5		P	unk		PCB	None	
As			Se			Sb			CYANIDES	unk	
Ba			Cu			Si (organic silicon only)			SULFIDES	None	
Cd			K						DIOXIN	None	
Cr	<5		Na			Sn			OTHERS (SPECIFY)		
Hg			Mn			Zn					

I

Does waste contain SOLVENTS? X

If yes, specify Xylene <1% Toluene <1% Petroleum Naphtha <1% Mineral Spirits <1%

LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

Methyl Butyl Ketone <1%

ATTACHMENTS: MSDS

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE ____ TITLE Asst. Plant Mgr. DATE 7-19-89

ENSCO USE ONLY

PC

DATE RECEIVED

LAB COPY

DICE 02581

APPROPRIATE TECHNOLOGIES-II, INC.

1700 MAXWELL ROAD • CHULA VISTA, CALIFORNIA 92011 • (619) 421-1175

WASTE PROFILE

A. GENERATOR INFORMATION

GENERATOR NAME: LIQUID AIR CORPORATION
FACILITY ADDRESS: 7837 DICE RD
SANTA FE SPRINGS CA 90670

TRANSPORTER: EXCLO ENVIRONMENTAL SERVICES INC
TRANSPORTER PHONE: (714) 756-8666
GENERATOR U.S. EPA I.D.: CAD111001208
GENERATOR STATE I.D.: SVC-HB30641292

TECHNICAL CONTACT: TOM BARBER
TITLE: PLANT MANAGER
PHONE: (213) 945-7383
WASTE STREAM NAME: CAUSTIC POTASH
PROCESS GENERATING WASTE: INDUSTRIAL GAS MANUFACTURER

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR: CLEAR
WILL IT FLOW? ☒ YES ☐ NO
DENSITY: 1.1 – 1.3
PHYSICAL STATE @ 70°F: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER
ODOR: ☒ NONE ☐ MILD ☐ STRONG DESCRIBE
MOISTURE CONTENT %: 100 ☒ WATER ☒ OTHER
IGNITABILITY: ☐ YES ☒ NO
FLASH POINT: >200 °F

C. HAZARDOUS WASTE CODES

U.S. EPA HAZARDOUS WASTE: ☒ YES ☐ NO
STATE HAZARDOUS WASTE: ☒ YES ☐ NO
U.S. EPA WASTE CODE NO's: D002
STATE WASTE CATEGORY NO's: 122

D. CHEMICAL COMPOSITION (MUST TOTAL 100%)

POTASSIUM HYDROXIDE	100 %
WATER	1-2 %

METALS IN p.p.m. or Mg/L

ANTIMONY (Sb)	ND
ARSENIC (As)	
BARIUM (Ba)	
BERYLLIUM (Be)	
CADMIUM (Cd)	
CHROMIUM VI	
CHROMIUM III	
COBALT (Co)	
COPPER (Cu)	
FLUORIDE (F)	
LEAD (Pb)	
MERCURY (Hg)	
MOLYBDENUM (Mo)	
NICKEL (Ni)	
SELENIUM (Se)	
SILVER (Ag)	
THALLIUM (Tl)	
VANADIUM (V)	
ZINC (Zn)	

OTHER COMPONENTS IN p.p.m. or Mg/L

OIL & GREASE	ND
CYANIDES	
SULFIDES	
PCB's	
PHENOLICS	
OTHER	

E. VOLUME

ESTIMATED QUANTITY: 1000 GALLONS ____ TONS ____ DRUMS ____ YARDS ____ OTHER
FREQUENCY PER: ☐ ONE TIME ☐ DAY ☐ WEEK ☐ QUARTER ☒ YEAR
TREATMENT LOCATION: ☒ ON-SITE ☐ OFF-SITE

F. ADDITIONAL INFORMATION TO DESCRIBE THE SOLID HAZARDOUS WASTE:

G. IMPORTANT INFORMATION REGARDING YOUR WASTE:

HAS A WASTE EXTRACTION TEST (WET)* BEEN PERFORMED ON YOUR WASTE? ☐ YES ☒ NO
DOES YOUR WASTE EXHIBIT ANY CHARACTERISTIC OF EP TOXICITY**? ☒ YES ☐ NO
HAS ANY ANALYSIS BEEN PERFORMED ON YOUR WASTE? ☐ YES ☒ NO
CAN YOU FURNISH TEST RESULTS? ☐ YES ☒ NO

* CALIFORNIA, TITLE 22, DIV. 4, CHAPTER 30, ARTICLE 11, CAC.
** U.S. EPA, 40 CFR, PART 261, SUBPART C, SUBSECTION 261.24.

Need assistance to complete this from? CALL (619) 421-1175

ATTACH ANALYSIS OR TEST RESULTS WHEN YOU RETURN THIS PROFILE SHEET.

WHITE — FILE/LENDER • CANARY — CUSTOMER • PINK — TREATMENT SITE • GOLD — CORPORATE

Form Approved OMB No. 2050-0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Service
Toxic Substances Control Divisic
Sacramento, Californi

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000602160 27960
Manifest Document No.:
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Liquid Air Corporation
8832 Dice Rd.
Santa Fe Springs, CA 90670 (213)9451383

A. State Manifest Document Number: 88327960
B. State Generator's ID: 91-0-0-0-0-1-2-0-2
C. State Transporter's ID
D. Transporter's Phone: (714) 786-8666
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone: (818) 334-5117

5. Transporter 1 Company Name: Ensco Environmental Service
6. US EPA ID Number: CAD981510514
7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Oil&Solvent Process Co.
1704 West First St.
Azusa, CA 91702
10. US EPA ID Number: CAD008130203

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Liquid NOS, ORM-E NA 9189/F001	19	DM	4310	G	State 211 EPA/Other F001
b. California Regulated Waste Only (Ethylene Glycol Liquid)	12	DM	1455	G	State 343 EPA/Other NA
c. RQ Waste Combustible Liquid NOS Combustible Liquid, NA 1993/F001	11	DM	150	G	State 211 EPA/Other F001
d. RQ Waste Combustible Liquid NOS Combustible Liquid, NA 1993/F003	1	DM	50	G	State 212/213 EPA/Other F003

J. Additional Descriptions for Materials Listed Above
See attached Master List

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear appropriate protective clothing

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: [signature] Month Day Year: 7 24 89

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jose Aguilar Signature: [signature] Month Day Year: 07 24 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Signature Month Day Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

88327960

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

DICE 02583

State of California - Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *(Form designed for use on elite (12-pitch typewriter).*

Department of Health Services
Toxic Substances Control Division
Sacramento, California

88327961

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA L 00 0 02 1 16 0
Manifest Document No.: 47 9 61
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Liquid Air Corporation
2832 Dice Rd
Santa Fe Springs, CA 90670
4. Generator's Phone (213) 945-1363

A. State Manifest Document Number: 88327961
B. State Generator's ID: S YC H 88 0 6 41 20 2
C. State Transporter's ID:
D. Transporter's Phone: (714) 756-8666
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: (714) 738-8516

5. Transporter 1 Company Name: Ensco Environmental Services
6. US EPA ID Number: CA D 98 08 1 5 054
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address
Kinbursky Brothers Supply, Inc
1314 N. Lemon St.
Anaheim CA 92801
10. US EPA ID Number: CA D 08 85 0 46 8 1

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
RQ Waste Battery, Wet, Filled with Acid, Corrosive Material, UN2794/D002	1	C W	1 50	P	State 791 / EPA/Other D002/D004
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
11a. Four lead acid batteries on pallet #41 wrapped with visqueen

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear appropriate protective clothing

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark R. Young
Signature:
Month Day Year: 7 24 89

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jose A [illegible]
Signature:
Month Day Year: 07 27 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year:

GENERATOR / TRANSPORTER / FACILITY

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

DICE 02584

P. O. Box 9583 Little Rock, Arkansas 72219
Telephone 501-562-7444

Job#5515 LOAD#53590

Form Approved. OMB No. 2050-0039. Expires 9-30-88

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA|L|0|0|0|2|1|1|6|0|7|4|9|0|0 — Manifest Document No.

2. Page 1 of 3

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: AR- 274900

3. Generator's Name and Mailing Address
LIQUID AIR CORPORATION
8832 DICE RD.
SANTA FE SPRINGS, CA 90670

4. Generator's Phone (213) 945-1383

B. State Generator's ID: SYCHB30641202

5. Transporter 1 Company Name: SUTTLES TRUCK LEASING, INC.
6. US EPA ID Number: |A|L|0|0|9|5|7|0|4|9|1|1

C. State Transporter's ID

D. Transporter's Phone: (800) 445-1989

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ENSCO ENVIRONMENTAL SYSTEMS
AMERICAN OIL ROAD
EL DORADO, AR 71730
10. US EPA ID Number: |A|R|D|0|6|9|7|4|8|1|9|2

G. State Facility's ID

H. Facility's Phone: (501) 863-7173

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ WASTE CORROSIVE SOLID, NOS CORROSIVE MATERIAL, UN1759 / D002	15	DF	11160	P	D002
b. ~~HAZARDOUS WASTE SOLID, NOS~~ RQ WASTE FLAMMABLE SOLID NOS, FLAMMABLE SOLID UN1325 / D001	13	DM	5340	P	D001 / D001/D008
c. CALIFORNIA REGULATED WASTE ONLY (OIL SLUDGE)	1	DM	320	P	222
d. HAZARDOUS WASTE LIQUID NOS, ORM-E, NA9189	9	DW	400	G	D008

J. Additional Descriptions for Materials Listed Above
11A. PROFILE #83814 11B. PROFILE #83779
11B. PROFILE #83812 FOR DRUM UN1808 SEE ATTACHED MASTER LIST
11C. PROFILE #83786

K. Handling Codes for Wastes Listed Above

if no alternate TSDF, return to generator

15. Special Handling Instructions and Additional Information
WEAR APPROPRIATE PROTECTIVE CLOTHING

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T. L. BARBER — Signature — Month Day Year: 07 26 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ANDY MEEKS — Signature — Month Day Year: 07 27 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 9-86) Previous edition is obsolete.

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREATMENT/STORAGE/DISPOSAL FACILITY MUST RETURN THIS ORIGINAL COPY TO THE GENERATOR.

Precision Business Forms • P.O. Box 15008 • Little Rock, Ar 72231-5008 • (501) 945-7474 47278

Form Approved OMB No. 2050-0039 Expires 9-30-88

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: CAL 000021160
Manifest Document No.: 74900
22. Page: 3 of 3
Information in the shaded areas is not required by Federal law.

23. Generator's Name: LIQUIDAIR CORPORATION
8832 DICE RD.
SANTA FE SPRINGS, CA 90670 (213) 945-1383

L. State Manifest Document Number: AR-274900
M. State Generator's ID: SXCH830641202

24. Transporter Company Name: SUTTLES TRUCK LEASING, INC
25. US EPA ID Number: ALD095704011
N. State Transporter's ID:
O. Transporter's Phone: (800) 445-1989

26. Transporter Company Name:
27. US EPA ID Number:
P. State Transporter's ID:
Q. Transporter's Phone:

	HM	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	X	RQ WASTE CORROSIVE SOLID NOS CORROSIVE MATERIAL UN1759 / D002	1	DM	340	P	D002 D004
b.	X	RQ WASTE CORROSIVE SOLID NOS CORROSIVE MATERIAL UN1759 / D002	1	DM	300	P	D002 D004 D008
c.	X	HAZARDOUS WASTE SOLID NOS, ORM-E NA 9189	2	DM	450	P	D007 D008
d.	X	WASTE PAINT RELATED MATERIAL FLAMMABLE LIQUID, NA1263	2	DM	19	G	D001 D008
e.	X	HAZARDOUS WASTE SOLID NOS ORM-E NA 9189	4	DM	1020	P	F001
f.	X	RQ WASTE FLAMMABLE LIQUID NOS FLAMMABLE LIQUID UN1993/D001	6	DM	250	G	D001 D007 D008
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above
28A. PROFILE #83804
28B. PROFILE #83802
28C. PROFILE #83778
28D. PROFILE #83777
28E. PROFILE #83808
28F. PROFILE #83816
SEE ATTACHED MASTERLIST FOR DRUM NUMBERS

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
WEAR APPROPRIATE PROTECTIVE CLOTHING

TRANSPORTER

33. Transporter Acknowledgement of Receipt of Materials
Printed/Typed Name: ANDY MEEKS
Signature: [signature]
Date: Month Day Year 7 12 89

34. Transporter Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

35. Discrepancy Indication Space

Style F16 REV-6 Labelmaster, Div. of American Labelmark Co., Chicago, IL 60646 312/478-0900

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete

ORIGINATOR—RETURN TO GENERATOR

DICE 02586

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.: CAL000024160

Manifest Document No.: 74900

22. Page: 2 of 3

Information in the shaded areas is not required by Federal law.

L. State Manifest Document Number: AR-274900

23. Generator's Name: LIQUID AIR CORPORATION
8832 DICE RD.
SANTA FE SPRINGS, CA 90670 (213) 945-1353

M. State Generator's ID: SYC HB 30641202

24. Transporter Company Name: SUTTLES TRUCK LEASING, INC

25. US EPA ID Number: ALD 095704011

N. State Transporter's ID:

O. Transporter's Phone: (800) 445-1989

26. Transporter Company Name:

27. US EPA ID Number:

P. State Transporter's ID:

Q. Transporter's Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	RQ HAZARDOUS WASTE SOLID NOS ORME NA9189/D001	X	5	DM	1260	P	D001 D006 D008
b.	HAZARDOUS WASTE SOLID NOS ORME NA9189	X	3	DM	900	P	D004 D006 D008
c.	RQ WASTE COMBUSTIBLE LIQUID, NOS COMBUSTIBLE, NA1993/D001	X	1	DF	50	G	D001
d.	CALIFORNIA REGULATED WASTE ONLY (SPILLED PETROLEUM DISTILLATES SOLID)		1	DF	340	P	352
e.	CALIFORNIA REGULATED WASTE ONLY (ALKALINE CLEANER SOLVENT SPENT + SOLIDIFIED)		3	DM	560	P	214
f.	HAZARDOUS WASTE LIQUID NOS. ORM-E NA9189	X	1	DF	50	G	D007 D008
g.	HAZARDOUS WASTE SOLID NOS ORM-E NA9189	X	9	DM	2200	P	D007 D008
h.	RQ HAZARDOUS WASTE SOLID NOS ORM-E NA9189/D001	X	3	DM	1340	P	D001
i.	RQ HAZARDOUS WASTE SOLID NOS ORM-E NA9189/D001	X	6	DM	1250	P	D001 D004

S. Additional Descriptions for Materials Listed Above

28A. PROFILE# 83797
28B PROFILE# 83809
28C. PROFILE# 83780
28D. PROFILE# 83799
28E. PROFILE# 83798
28F. PROFILE# 83776
28G. PROFILE# 83775
28H. PROF# 83806
28I. PROF# 83807

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

SEE ATTACHED MASTER LIST FOR DRUM NUMBERS

WEAR APPROPRIATE PROTECTIVE CLOTHING

TRANSPORTER

33. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: ANDY MEEKS

Signature: Andy Meeks

Date: Month 07 Day 27 Year 89

34. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

35. Discrepancy Indication Space

Style F16 REV-6 Labelmaster, Div. of American Labelmark Co., Chicago, IL 60646 312/478-0900

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete

ORIGINATOR—RETURN TO GENERATOR

DICE 02587

Packaging Date

Generator Liquid Air Corp

Project Number 5515

Drum Type	Drum #	Description		WPS #	Manifest #
Closed Top Poly	42-46	RQ WASTE Corros. Solid N.O.S.	Corros MATERIAL UN 1759	83814	LOAD #53540 AR-274900
1H, 55 gal	47A, 48A, 49A 47-53	RQ WASTE FLAM. Solid N.O.S. 181 D001 D007 D008	Flam Solid UN 1325	83812	LOAD #53540 AR 274900
METAL OVER-PACK	54-56	" " " " "		"	"
17E	57	CRWO (oil SLUDGE)		83786	"
17E	58-66	HAZ WASTE LQ N.O.S. 221/D008	ORM-E NA9189	83779	"
17H	67-71	RQ HAZ WASTE Solid N.O.S./D001 D001/D006) D008 181	ORM-E NA9189	83797	"
Poly OVER-PACK	55gal 72, 73, 74	HAZ WASTE SOLID N.O.S. D001, D006, D008	ORM-E NA9189	83809	"
Poly OVER-PACK	75	RQ WASTE Combust. LQ N.O.S. D001 343	Comb. LQ NA1993	83780	"
Closed top 55 gal Poly	76	CRWO (spilled petroleum Distillate) 355		83799	"
17H	77-79	CRWO Alkaline Cleaner Soln. spill solidified		83798	"
Poly OVER-PACK	80	HAZ. WASTE LQ N.O.S. D007/D008 342	ORM-E NA9189	83776	"
17H	81-89	HAZ WASTE Solid N.O.S. D007/D008	ORM-E NA9189	83775	"
17H	90-91	RQ HAZ WASTE Solid N.O.S. D001 211	ORM-E NA9189	83806	"
metal OVER-PACK	92	" " " " "		"	"
17H	93-98	RQ HAZ WASTE Solid N.O.S. D001, D004 272	ORM-E NA9189	83807	"
17H	99	RQ WASTE Corrosive Solid N.O.S. (D002, D004)	Corrosive MATERIAL UN 1759	83864	"
METAL OVER-PACK	100	RQ WASTE Corrosive Solid N.O.S.	Corrosive MATERIAL UN 1759	83802	"

Packaging Date [redacted]

Project Number 5515

Generator LIQUID AIR Corp.

Drum Type	Drum #	Description		WPS #	Manifest #
17H	101-102	HAZ WASTE SOLID N.O.S. D007 / D009	ORME NA9189	83778	AR 274900 LOAD #53340
17H	534-534A [redacted]	WASTE PAINT RELATED MATERIAL D001 / D008.	FLAM LQ NA1263	83777	"
17H	105-108	HAZ WASTE SOLID N.O.S. F001	ORME NA9189	83808	"
17H	109-111	WASTE FLAM. LQ N.O.S. D001 / D007 / D008	FLAM LQ. UN1993	83816	"
17E	112-114	" "	" "	"	"

RESTRICTED WASTE SHIPMENT

NOTIFICATION

I. Identification Information:

Generator: LIQUID AIR CORP.

Address: 8832 DICE RD.
SANTA FE SPRINGS, CA 90670

EPA ID No.: CAL000021160

Manifest No.: AR274900

Completed by: A. KHAJETOORIANS

Title: CHEMIST

Date: 7/26/89

This shipment as referenced by the Manifest Number contains waste(s) which correspond to the following USEPA Hazardous Waste Number(s): F001 X, F002 ____, F003 ____, F004 ____, F005 ____
Additional Waste Numbers may be listed on the Manifest.

The constituent composition identified in this Table is based upon:

____ An attached waste analysis

____ My thorough knowledge of the waste stream

II. Table CCWE:

Check the appropriate boxes identifying the constituent and corresponding treatment standard(s) applicable to this waste shipment.

F001-F005 spent solvents		mg/L Wastewaters containing spent solvent		mg/L All other spent solvent wastes
Acetone	☐	0.05	☐	0.59
n-Butyl alcohol	☐	5.0	☐	5.0
Carbon disulfide	☐	1.05	☐	4.81
Carbon tetrachloride	☐	.05	☐	.96
Chlorobenzene	☐	.15	☐	.05
Cresols (and cresylic acid)	☐	2.82	☐	.75
Cyclohexanone	☐	.125	☐	.75
1,2-dichlorobenzene	☐	.68	☐	.125
Ethyl acetate	☐	.05	☐	.75
Ethyl benzene	☐	.05	☐	.053
Ethyl ether	☐	.05	☐	.75
Isobutanol	☐	5.0	☐	5.0
Methanol	☐	.25	☐	.75
Methylene chloride	☐	.20	☐	.98
Methylene chloride (from the pharmaceutical industry)	☐	12.7	☐	.96
Methyl ethyl ketone	☐	0.05	☐	0.75
Methyl isobutyl ketone	☐	0.05	☐	0.33
Nitrobenzene	☐	0.65	☐	0.125
Pyridine	☐	1.12	☐	0.33
Tetrachloroethylene	☐	0.079	☐	0.05
Toluene	☐	1.12	☐	0.33
1,1,1 - Trichloroethane	X	1.05	☐	0.41
1,2,2 - Trichloro - 1,2,2 trifluoroethane	☐	1.05	☐	0.96
Trichloroethylene	☐	0.062	☐	0.091
Trichlorofluoromethane	☐	0.05	☐	0.96
Xylene	☐	0.05	☐	0.15

III. Statement of Certification:

For those generators whose waste stream contains the constituents identified in Table CCWE of 40 CFR Part 268 (above) and must be treated at least to those respective concentration levels specified.

Name T. T. BARBER Signature T. T. Barber Date 7-26-89

Revised 7-87

ensco
waste treatment division

ENSCO, Inc.
American Oil Road
El Dorado, AR 71730

I. Generator Information

Generator name Liquid Air Corporation

Manifest No. AR 274900

Address 8832 Dice Rd
Santa Fe Spring CA 90670

Completed by W. Pouchot

Title Chemical Services Mgr EES

EPA ID# CAL0000 21160

Date 7/26/89

This shipment as referenced by the Manifest Number contains waste(s) which correspond to the following USEPA Hazardous Waste Number(s): D002, D004, D006, D007 D008.

II. Demonstration

This is a demonstration under 40CFR Part 268.8)a) that I have selected high temperature incineration as the practically available technology which yields the greatest environmental benefit. This demonstration is based upon my contact with the facilities and officials listed below. This demonstration is based on EPA's generic hierarchy of preferred treatment types of recycling/recovery as the best method, thermal or chemical destruction where recycling is unavailable, inappropriate, or ineffective, and immobilization where neither recovery nor destruction is available or appropriate.

1. Official Greg Mobley

Address 1327 Old Skyline Rd
Kettleman Hills, CA.

Title Customer Service Representative

Telephone No. 1-800-222-2964

Company Chemical Waste Management Kettleman Hills

Date of contact June 14 1989

Note: Part II need only be completed with the first shipment of the particular wastes regulated by the land ban rules.

III. Notification

This is a notification under 40CFR 268.7(a) (1) to the receiving facility of the applicable "soft hammer" prohibitions codified in 40CFR Part 268.33(f) which states that these wastes are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to 40CFR 268.8. Also, these wastes are subject to the prohibitions on storage of restricted wastes set forth in 40CFR Part 268.50.

IV. Certification

I certify under penalty of law that the requirements of 40CFR Part 268.8(a) (1) have been met and that I have contracted to treat my waste by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name _____ Signature _____ Date _____

WTD 11-15-88

DICE 02591

ensco
waste treatment division

ENSCO, Inc.
American Oil Road
El Dorado, AR 71730

I. Generator Information

Generator name Liquid Air Corp. Manifest No. AR 274900

Address 8832 Dice Rd. Completed by W. Poudrot

Santa Fe Springs, CA 90670 Title Chemical Services Mgr, EES

EPA ID# CAL000021160 Date 7/26/89

This shipment as referenced by the Manifest Number contains waste(s) which correspond to the following USEPA Hazardous Waste Number(s): D002, D004, D006, D007, D008.

II. Demonstration

This is a demonstration under 40CFR Part 268.8)a) that I have selected high temperature incineration as the practically available technology which yields the greatest environmental benefit. This demonstration is based upon my contact with the facilities and officials listed below. This demonstration is based on EPA's generic hierarchy of preferred treatment types of recycling/recovery as the best method, thermal or chemical destruction where recycling is unavailable, inappropriate, or ineffective, and immobilization where neither recovery nor destruction is available or appropriate.

1. Official Mike Donley Address 1700 Maxwell Rd Chula Vista CA 92011

Title Sales Manager Telephone No. 619-421-4251

Company Approiate Technologies II Date of contact June 14 1989

Note: Part II need only be completed with the first shipment of the particular wastes regulated by the land ban rules

III. Notification

This is a notification under 40CFR 268.7(a) (1) to the receiving facility of the applicable "soft hammer" prohibitions codified in 40CFR Part 268.33(f) which states that these wastes are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to 40CFR 268.8. Also, these wastes are subject to the prohibitions on storage of restricted wastes set forth in 40CFR Part 268.50

IV. Certification

I certify under penalty of law that the requirements of 40CFR Part 268.8(a) (1) have been met and that I have contracted to treat my waste by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name _____ Signature _____ Date _____

DICE 02592

ensco
waste treatment division

ENSCO, Inc.
American Oil Road
El Dorado, AR 71730

I. Generator Information

Generator name LIQUID AIR CORP. Manifest No. AR274900

Address 8832 DICE RD Completed by WALT PONCHOT, EES.

SANTA FE SPRINGS, CA 90670 Title CHEMICAL SERVICES MANAGER

EPA ID# CAL0000211160 Date 7/26/89

This shipment as referenced by the Manifest Number contains waste(s) which correspond to the following USEPA Hazardous Waste Number(s): D002, D004, D006, D007, D008.

II. Demonstration

This is a demonstration under 40CFR Part 268.8)a) that I have selected high temperature incineration as the practically available technology which yields the greatest environmental benefit. This demonstration is based upon my contact with the facilities and officials listed below. This demonstration is based on EPA's generic hierarchy of preferred treatment types of recycling/recovery as the best method, thermal or chemical destruction where recycling is unavailable, inappropriate, or ineffective, and immobilization where neither recovery nor destruction is available or appropriate.

1. Official SANDY SUGARS Address 12381 SCHAEFER HIGHWAY DETROIT, MI 48227

Title SALES ENGINEER Telephone No. (313) 353-5880

Company CYANOKEM Date of contact JUNE 14, 1989

Note: Part II need only be completed with the first shipment of the particular wastes regulated by the land ban rules.

III. Notification

This is a notification under 40CFR 268.7(a) (1) to the receiving facility of the applicable "soft hammer" prohibitions codified in 40CFR Part 268.33(f) which states that these wastes are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to 40CFR 268.8. Also, these wastes are subject to the prohibitions on storage of restricted wastes set forth in 40CFR Part 268.50.

IV. Certification

I certify under penalty of law that the requirements of 40CFR Part 268.8(a) (1) have been met and that I have contracted to treat my waste by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name T. J. BARTLETT Signature [signature] Date 7-26-89

WTD 11-15-88

DICE 02593

Southern California
District Office
17062 Murphy Avenue, Irvine, CA 92714 (714) 756-8666 Fax: (714) 756-5317 Contr. Lic. No. 550205

ensco environmental services, inc.
a subsidiary of environmental system company

July 26, 1989

Ensco Environmental Systems
American Oil Road
El Dorado, AR

Re: Manifest #AR-274900
Profile Numbers: 83786, 83799, 83798

To whom it may concern,

On the Arkansas manifest #AR-274900 , profiles numbers 83786, 83799, and 83798 were assigned the following proper shipping name: California Regulated Waste Only. These wastestreams are not EPA regulated. However, they are regulated in the state of California, and therefore, are required to be labeled as such.

Sincerely,

Asteghik Khajetoorians
Chemist

ensco

WASTE MATERIAL DATA SHEET

No. 83814

A CUSTOMER INFORMATION

CUSTOMER NAME: ~~Liquid Air Corp~~ Ensco Environmental
MAILING ADDRESS: 17062 Murphy Ave.
Irvine, CA 92714
FACILITY ADDRESS:
EPA I.D. NO.

GENERATOR INFORMATION

GENERATOR NAME: Liquid Air Corp
MAILING ADDRESS: Dice Rd
Santa Fe Springs CA
FACILITY ADDRESS
EPA I.D. NO. CAL0000211600

B WASTE IDENTIFICATION

WASTE NAME: Sulfuric Acid Cleaning Solution Spent/Solid
Is this waste normally generated at FACILITY? X
Name of Process Generating Waste: Pipe cleaning Solution
SIC
Does waste vary by Amount? X Composition? X Specify pH / metals

C NFPA HAZARD CODE (x appropriate boxes)

Enclose copies of safety data sheets applicable to waste. Include data constituents of waste and materials used in process.

HEALTH	3				
FLAMMABILITY	1				
REACTIVITY	0				

Attachments: Analytical

D GENERAL CHARACTERISTICS (at 70°F unless otherwise specified)

COLOR: White
ODOR: ☐ NONE ☐ STRONG ☐ MILD
☐ LIQUID ☐ SOLID ☐ SLUDGE ☐ POWDER
0 % FREE
PHASES: ☒ SINGLE LAYER ☐ DOUBLE LAYER ☐ MULTI-LAYER

GIVE THE FOLLOWING FOR EACH LAYER	1	2	3	4	5
% WT. of TOTAL	100				
DENSITY	1.2				
% SOLIDS	100				

E SPECIAL HANDLING INSTRUCTIONS

If special handling techniques are required, specify: ATTACHMENTS

Does waste contain ETIOLOGICAL AGENTS? Is it RADIOACTIVE? Is it regulated under TSCA?
If yes, specify: ATTACHMENTS

F RCRA INFORMATION

Is this a USEPA hazardous waste?
Please give USEPA hazardous waste codes: D002 D010
Describe nature of reactivity if D003 waste:

G SHIPPING INFORMATION

DOT hazardous material X
PROPER SHIPPING NAME: RQ Waste Corrosive Solid NOS
HAZARD CLASS: Corrosive ID # UN1759 R/Q D001
ANTICIPATED VOLUME: GAL 20 YDS. LBS., PER:
☐ ONE TIME ☐ WK ☒ MO ☒ YR OTHER Drums, in bulk? X by rail? X
Specify type and size of container: Poly Drums 17H Type SSGAI DOT

H PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☐ 0.8-1.0 ☒ 1.0-1.2 ☐ 1.2-1.4 ☐ 1.4-1.7 ☐ >1.7 Actual

2 VISCOSITY (centipoise)
☐ 1-100 ☐ 100-1,000 ☐ 1,000-19,000 ☐ > 10,000 Actual N/A

3 ASH (%WT.)
☐ <0.1 ☐ 0.1-1.0 ☐ 1-5 ☐ 5-20 ☐ >20 Actual unk

4 TOTAL SUSPENDED SOLIDS (% WT.)
☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ 5-20 ☒ >20 Actual

5 pH
☒ <2 ☐ 2-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ >12.5 Actual 2.7-2.0 Constituent

6 BTU's 1000/lbs.
☐ <1 ☐ 1-4 ☐ 4-8 ☐ 8-12 ☐ 12-16 ☐ >16 Actual unk

7 FLASH POINT (closed cup)
☐ <100°F ☐ 100°-140°F ☐ 140°-200°F ☐ >200°F Actual

8 SULFUR (% WT.)
☐ <0.5 ☐ 0.5-2.0 ☐ 2-5 ☐ >5 Actual unk

9 HALOGENS (% WT.)

	<1	1-10	10-50	>50	ACTUAL
☒ BROMINE	☒	☐	☐	☐	
☒ CHLORINE	☒	☐	☐	☐	
☒ FLUORINE	☒	☐	☐	☐	

10 CONSTITUENTS

	TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)		TOTAL (%WT.)	EP EXTRACT (PPM)
Ag		ND	Pb	ND		P	ND		PCB	None	
As			Se		2.4	Sb	ND		CYANIDES	None	
Ba			Cu	ND		Si	ND		SULFIDES	None	
Cd			K		86-30	organic silicon only			DIOXIN	None	
Cr			Na		4.1-200	Sn			OTHERS (SPECIFY)		
Hg			Mn	ND		Zn					

ATTACHMENTS

I

Does waste contain SOLVENTS? X If yes, specify None
LIST EACH SOLVENT AND APPROXIMATE PERCENTAGE

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE TITLE DATE

ENSCO USE ONLY
PC
DATE RECEIVED

LAB COPY

DICE 02595

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#33

Sample Number
9060992

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	470
Potassium	(7610)	1.0	86
Chloride	(9252)	1.0	400
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	550
pH	(9040)	NA	0.27

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#33

Sample Number
9050992

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	0.61
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	74
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	50
Sodium	(7770)	NA	NA	1.0	470
Magnesium	(7450)	NA	NA	1.0	5.2
Potassium	(7610)	NA	NA	1.0	86

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#32

Sample Number
9050991

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	N.D.
Barium	(7080)	100	10000	10	N.D.
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	N.D.
Chromium	(7191)	560	2500	0.5	1.0
Cobalt	(7200)	80	8000	1.0	N.D.
Copper	(7210)	25	2500	1.0	N.D.
Iron	(7380)	NA	NA	1.0	170
Lead	(7420)	5.0	1000	1.0	N.D.
Mercury	(7471)	0.2	20	0.1	N.D.
Molybdenum	(7480)	350	3500	1.0	N.D.
Nickel	(7520)	20	2000	1.0	N.D.
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	N.D.
Zinc	(7950)	250	5000	1.0	N.D.
Calcium	(7140)	NA	NA	1.0	100
Sodium	(7770)	NA	NA	1.0	1200
Magnesium	(7450)	NA	NA	1.0	13
Potassium	(7610)	NA	NA	1.0	300

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical

Gary Steube
Laboratory Director

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#32	9060991

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	1200
Potassium	(7610)	1.0	300
Chloride	(9252)	1.0	900
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	510
pH	(9040)	NA	1.3

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter). JOB #5575 and Front of Page 7 F

Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000021160 — Manifest Document No.: 27964
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
LIQUID AIR CORPORATION
8832 Dice Road, Santa Fe Springs, CA 90670
4. Generator's Phone (213) 945-1383

A. State Manifest Document Number: 88327964
B. State Generator's ID: SYCHA30641202

5. Transporter 1 Company Name: PACIFIC ENVIRONMENTAL MANAGEMENT — 6. US EPA ID Number: CAD982053779
C. State Transporter's ID: 010742
D. Transporter's Phone: (213) 324-2445

7. Transporter 2 Company Name — 8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Kettleman Hills
932 Old Skyline Road
Kettleman City, CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID:
H. Facility's Phone: (209) 386-9711

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. California Regulated Waste Only (Lime Rock)	1	DM	440	P	State 181 / EPA/Other N/A
b. California Regulated Waste Only (Rockfiller, solid)	1	DM	180	P	State 181/352 / EPA/Other N/A
c. RQ Waste Corrosive Solid, NOS Corrosive Material, UN 1759/D002	1	DF	50 0	P	State 141 / EPA/Other D002
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
11a. Profile #LAX J36329, Drum#34 17H 55 Gallon
11b. Profile #LAX J36407, Drum#35 17H 55 Gallon
11c. Profile #LAX J36328, Drum#40 Poly Overpack of 55 Gallon Drum packed with Perlite and absorbell

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear appropriate protective clothing

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: T. I. BARBER — Signature: [signature] — Month Day Year: 072889

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Scott S Snyder — Signature: [signature] — Month Day Year: 072889

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

White: TSDF SENDS THIS COPY TO DOHS WITHIN 30 DAYS
To: P.O. Box 3000, Sacramento, CA 95812

DICE 02600

Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

MANU# 88327964

LAX J 36329

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: Liquid Air Corp
2. Generator USEPA ID: CAL000021160
3. Facility Address: 3382 Dice Rd. Santa Fe Springs CA.
4. Generator State ID: SW HB 30641202
5. Zip Code: 90760
6. Technical Contact: Tom Rocher
7. Title: Plantmanager
8. Phone: (213) 945 - 1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO

1. ☐ Generating Facility (A, above), or
2. Company Name: ENSCO Environmental Services
3. Phone: (714) 256 - 8666
4. Address: 17062 Murphy Ave. Irvine CA. 92714 5515F
5. Zip Code: 92714

C.

1. NAME OF WASTE: Lime Rock
2. PROCESS GENERATING WASTE: ~~Gas~~ Industrial Gas Manufacture
3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
   ☐ Yes ☐ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
White	☒ No ☐ Yes If known, describe:	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other:	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.0 - 1.2	☐ Yes ☒ No Volume: %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☒ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range ___ - ___ ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ None ☐ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.	RANGE MIN.	MAX.	
Lime Rock	90	100	%
Debris and Inert Nonhazardous Impurities	0	20	%
			%
			%
			%
			%
			%
			%
			%
			%
			%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: ___ %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	___ ppm
Cyanides	☒	☐ < 50 ppm	___ ppm
Phenolics	☒	☐ < 50 ppm	___ ppm
Sulfides	☒	☐ < 50 ppm	___ ppm

F. METALS

Indicate if this waste contains any of the following: 1. ☒ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☒ < 5	☐ < 500	
Barium	☒ < 100		
Cadmium	☒ < 1	☐ < 100	
Chromium	☒ < 5		
Lead	☒ < 5	☐ < 500	
Mercury	☒ < 0.2	☐ < 20	
Selenium	☒ < 1	☐ < 100	
Silver	☒ < 5		
Chromium-Hex	☒ < 5	☐ < 500	
Copper	☒ < 5		
Nickel	☒ < 5	☐ < 134	
Thallium	☒ < 5	☐ < 130	
Zinc	☒ < 5		
	☐ <		
	☐ <		
	☐ <		

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

[illegible] J 36329
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☒ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:

☐ RCRA Reactive ☐ Radioactive
☐ Water Reactive ☐ Etiological
☐ Explosive ☐ Pesticide Manufacturing Waste
☐ Shock Sensitive ☐ Other _____
☐ Pyrophoric ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

	LESS THAN	or	ACTUAL
Beryllium	☐ < 5000 ppm		_____ ppm
Potassium	☐ < 5000 ppm		_____ ppm
Sodium	☐ < 5000 ppm		_____ ppm
Total Bromine	☐ < 2 %		_____ %
Total Chlorine	☐ < 35 %		_____ %
Total Fluorine	☐ < 1 %		_____ %
Total Sulfur			_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☒ Yes ☐ No 2. Anticipated Annual Volume/Units: 5000 # / #
3. Proper Shipping Name: [redacted] California Regulated Waste Only
4. Hazard Class: None 5. I.D. #: _____
6. Additional Description: (Lime Lock
7. Method of Shipment: ☐ Bulk Liquid ☒ Bulk Solid ☒ Drum (Type/Size): 55 H / 55 gal Other: _____
8. CERCLA Reportable Quantity (RQ): N/A 9. RQ Units (lb/kg): _____
10. USEPA Hazardous Waste? ☐ Yes ☒ No 11. USEPA Hazardous Waste Number(s): _____
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): 181

K. SPECIAL HANDLING INFORMATION _____

☐ Additional Page(s) Attach

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true a accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. [signature] Signature 2. PLANT MG Title
3. T. F. BARBER Name (Type or Print) 4. 7-6-89 Date

Side 2 of 2
Form CWM-6000 © 1987 Chemical Waste Mana

Need signature

DICE 02602

Chemical Waste Management, Inc.

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

J36329

WASO J 36329

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

This completed form must be returned, with the representative sample, to:

_____

_____

_____

_____

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification of Representative Sample form.

1. ☒ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat) Drum

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code: _____
2. [redacted] Generator's Name: _____
3. [redacted] Name of Waste: _____
4. [redacted] Sample Hour/Date: _____
5. [redacted] Sampler's Signature: _____

1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

6. Print Sampler's Name: W. Pondot
7. Sampler's Title: Chemical Services Manager
8. Sampler's Employer (if CWM, see D. below): Ecolo Environmental Services

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____
3. Witness' Title: _____
4. Witness' Employer: _____
5. Date: _____

Form CWM-51 © 1987 Chemical Waste Management, Inc.

Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

LAX J 36407

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: _____

A. GENERAL INFORMATION

1. Generator Name: LIQUID AIR CORPORATION
2. Generator USEPA ID: CAL000021160
3. Facility Address: 8832 DICE RD
4. Generator State ID: SYC HB3064202
SANTA FE SPRINGS, CA
5. Zip Code: 90670
6. Technical Contact: TOM BIEGER
7. Title: PLANT MANAGER
8. Phone: (213) 945-1383

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: ENSCO ENVIRONMENTAL SERVICES INC
3. Phone: (714) 756-8666
4. Address: 17062 B MURPHY AVE
IRVINE CA
5. Zip Code: 92714

C. 1. **NAME OF WASTE** ROCK FILLER

2. **PROCESS GENERATING WASTE** INDUSTRIAL GAS MANUFACTURER

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
GRAY	☒ No ☐ Yes If known, describe:	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other:	☐ Multilayered ☐ Bi-layered ☒ Single Phased	Range: 1.5 - 1.7	☐ Yes ☒ No Volume: %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☒ 7 ☐ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range - ☐ NA

8. Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☒ ≥ 200°F ☐ None ☐ Closed Cup ☐ Open Cup

E. CHEMICAL COMPOSITION

1.	RANGE MIN. - MAX.	
CEMENT	30 - 50	%
DIATOMACEOUS EARTH	30 - 40	%
GYPSUM	30 - 50	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

2. Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL	
PCB's	☒	☐ < 50 ppm	_____	ppm
Cyanides	☒	☐ < 50 ppm	_____	ppm
Phenolics	☒	☐ < 50 ppm	_____	ppm
Sulfides	☒	☐ < 50 ppm	_____	ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☐ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☐ < 5	☐ < 500	
Barium	☐ < 100		
Cadmium	☐ < 1	☐ < 100	
Chromium	☐ < 5		
Lead	☐ < 5	☐ < 500	
Mercury	☐ < 0.2	☐ < 20	
Selenium	☐ < 1	☐ < 100	
Silver	☐ < 5		
Chromium-Hex	☐ < 5	☐ < 500	
Copper	☐ < 5		
Nickel	☐ < 5	☐ < 134	
Thallium	☐ < 5	☐ < 130	
Zinc	☐ < 5		
	☐ <		
	☐ <		
	☐ <		

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

[LAX] J 36407
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☒ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☒ No
3. Indicate if this waste is any of the following:

☐ RCRA Reactive ☐ Radioactive
☐ Water Reactive ☐ Etiological
☐ Explosive ☐ Pesticide Manufacturing Waste
☐ Shock Sensitive ☐ Other _____
☐ Pyrophoric ☒ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

	LESS THAN	or	ACTUAL
Beryllium	☐ < 5000 ppm		_____ ppm
Potassium	☐ < 5000 ppm		_____ ppm
Sodium	☐ < 5000 ppm		_____ ppm
Total Bromine	☐ < 2 %		_____ %
Total Chlorine	☐ < 35 %		_____ %
Total Fluorine	☐ < 1 %		_____ %
Total Sulfur			_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°F
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☐ Yes ☒ No 2. Anticipated Annual Volume/Units: 1000 lbs/year
3. Proper Shipping Name: CALIFORNIA REGULATED WASTE ONLY (SOLID)
4. Hazard Class: NA 5. I.D. #: NA
6. Additional Description: (Stone Filler
7. Method of Shipment: ☐ Bulk Liquid ☒ Bulk Solid ☐ Drum (Type/Size): 17H / 55GAL Other: _____
8. CERCLA Reportable Quantity (RQ): _____ 9. RQ Units (lb/kg): _____
10. USEPA Hazardous Waste? ☐ Yes ☒ No 11. USEPA Hazardous Waste Number(s): NA
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): 181 / 352

K. SPECIAL HANDLING INFORMATION _____

☐ Additional Page(s) Attache

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true ar accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession the generator has been disclosed.

1. [signature] Signature
2. PLANT MA Title
3. T. J. BARBER Name (Type or Print)
4. 7-6-89 Date

Side 2 of 2
Form CWM-6000 © 1987 Chemical Wast

Need sign.

DICE 02605

December 31, 1990

WCAS
WEST COAST ANALYTICAL SERVICE, INC.
ANALYTICAL CHEMISTS

JOHN L. HUNTER & ASSOCIATES
13310 Firestone Blvd., Suite A-2
Santa Fe Springs, CA 90670

Attn: John L. Hunter

JOB NO. 17412

LABORATORY REPORT

Samples Received: Three (3) soil samples and one (1) water
Date Received: 12-18-90
Date Released for Analysis: 12-19-90
Purchase Order No: Project Name: Santa Fe Springs

The samples were analyzed as follows:

Samples Analyzed	Analysis	Results
Two (2) soils and one (1) water	Alkalinity by SM 403	Tables 1 & 2
Two (2) soils and one (1) water	pH by EPA 150.1/9040	Table 3
One (1) soil and one (1) water	Volatile Organics by EPA 8260/624	Data Sheets
One (1) soil and one (1) water	Surrogate Percent Recoveries for EPA 8260/624	Data Sheets
Three (3) soils and one (1) water	CAM (17) Metals by ICPMS1	Data Sheets

B. Michael Hovanec
Senior Staff Chemist

D. J. Northington, Ph.D.
President

9840 Alburtis Avenue • Santa Fe Springs, California 90670 • 213/948-2225 • FAX 213/948-5850

WEST COAST ANALYTICAL SERVICE, INC.

JOHN L. HUNTER & ASSOCIATES
Mr. John L. Hunter

Job # 17412
December 31, 1990

LABORATORY REPORT

TABLE 1

Parts Per Million (mg/Kg)

Sample ID	Total Alkalinity by SM 403
1A	510000
2A	320000
Detection Limit	1000

Date Analyzed: 12-27-90

TABLE 2

Parts Per Million (mg/L)

Sample ID	Total Alkalinity by SM 403
W-A	300000
Detection Limit	10000

Date Analyzed: 12-27-90

TABLE 3

Sample ID	pH (Units) by EPA 150.1/9040
1A	12.8
2A	12.9
W-A	12.7

Date Analyzed: 12-20-90

Client: John L. Hunter & Assoc. Sample: 1A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438 241

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.08	0.07	50	500
Barium	20.4	0.2	1000	10000
Beryllium	0.62	0.07	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.2	0.2	5600/50	2500/500
Cobalt	0.98	0.02	800	8000
Copper	9	0.2	250	2500
Lead	2.69	0.1	50	1000
Mercury	ND<0.06	0.06	2	20
Molybdenum	0.14	0.03	3500	3500
Nickel	ND<8	8	200	2000
Selenium	0.4	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	7.92	0.05	240	2400
Zinc	6.3	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 2A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438 251

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.2	0.07	50	500
Barium	29.7	0.2	1000	10000
Beryllium	0.49	0.06	7.5	75
Cadmium	0.04	0.02	10	100
Chromium (III/VI)	6.4	0.2	5600/50	2500/500
Cobalt	2.38	0.02	800	8000
Copper	5.4	0.2	250	2500
Lead	3.36	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.41	0.03	3500	3500
Nickel	37	10	200	2000
Selenium	0.7	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	43.4	0.05	240	2400
Zinc	7.4	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 3A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438 261

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.74	0.06	50	500
Barium	25.8	0.2	1000	10000
Beryllium	0.16	0.06	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.6	0.2	5600/50	2500/500
Cobalt	1.11	0.02	800	8000
Copper	5.7	0.2	250	2500
Lead	0.57	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.1	0.03	3500	3500
Nickel	6	5	200	2000
Selenium	ND<0.3	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	5.85	0.05	240	2400
Zinc	5.5	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc.
Job Number: 17412
Date Analyzed: 12-26-90

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry

Parts Per Million (mg/L)

	W-A	Blank DL
Beryllium	ND<0.003	0.003
Vanadium	ND<0.003	0.003
Chromium	ND<0.007	0.007
Cobalt	0.002	0.001
Nickel	ND<0.04	0.04
Copper	0.007	0.003
Zinc	0.66	0.02
Arsenic	0.001	0.001
Selenium	0.04	0.04
Molybdenum	ND<0.002	0.002
Silver	ND<0.001	0.001
Cadmium	ND<0.001	0.001
Antimony	ND<0.003	0.003
Barium	5.49	0.003
Mercury	ND<0.002	0.002
Thallium	ND<0.001	0.001
Lead	ND<0.003	0.003

ND-Not Detected. The detection limit (DL) is stated above.
Because of sample interferences, Sample DLs may differ from Blank DLs.

WCAS

CLIENT: JOHN L. HUNTER
WCAS JOB #: 17412

SAMPLE: 3A

DATE RECEIVED: 12/18/90
DATE EXTRACTED: 12/27/90
DATE ANALYZED: 12/27/90

RUN NUMBER: 17412V6
SAMPLE AMOUNT: 1.0G
MATRIX: SOLID

VOLATILE ORGANICS (EPA 624/8260)

UNITS: UG/KG (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	180.	30.
71-43-2	BENZENE	ND	5.
75-27-2	BROMODICHLOROMETHANE	ND	5.
75-25-2	BROMOFORM	ND	5.
74-83-9	BROMOMETHANE	ND	30.
78-93-3	2-BUTANONE (MEK)	ND	30.
75-15-0	CARBON DISULFIDE	6.	5.
56-23-5	CARBON TETRACHLORIDE	ND	5.
108-90-7	CHLOROBENZENE	ND	5.
75-00-3	CHLOROETHANE	ND	30.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	50.
67-66-3	CHLOROFORM	ND	5.
74-87-3	CHLOROMETHANE	ND	30.
108-41-8	CHLOROTOLUENE	ND	5.
124-48-1	DIBROMOCHLOROMETHANE	ND	5.
95-50-1	1,2-DICHLOROBENZENE	ND	5.
541-73-1	1,3-DICHLOROBENZENE	ND	5.
106-46-7	1,4-DICHLOROBENZENE	ND	5.
75-34-3	1,1-DICHLOROETHANE	ND	5.
107-06-2	1,2-DICHLOROETHANE	ND	5.
75-35-4	1,1-DICHLOROETHYLENE	ND	5.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	5.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	5.
78-87-5	1,2-DICHLOROPROPANE	ND	5.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.
100-41-4	ETHYLBENZENE	ND	5.
106-93-4	ETHYLENE DIBROMIDE	ND	5.
76-13-1	FREON-TF	ND	5.
119-78-6	2-HEXANONE	ND	30.
75-09-2	METHYLENE CHLORIDE	ND	30.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	30.
100-42-5	STYRENE	ND	5.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.
127-18-4	TETRACHLOROETHYLENE	ND	5.
109-99-9	TETRAHYDROFURAN	ND	30.
108-88-3	TOLUENE	ND	5.
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.
79-01-6	TRICHLOROETHYLENE	ND	5.
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.
108-05-4	VINYL ACETATE	ND	30.
75-01-4	VINYL CHLORIDE	ND	30.
95-47-6	TOTAL XYLENES	ND	5.

WCAS

CLIENT: JOHN L. HUNTER
WCAS JOB #: 17412

SAMPLE: W-A

DATE RECEIVED: 12/18/90
DATE EXTRACTED: 12/27/90
DATE ANALYZED: 12/27/90

RUN NUMBER: 17412V7
SAMPLE AMOUNT: 5ML
MATRIX: WATER

VOLATILE ORGANICS (EPA 624/8260)

UNITS: UG/L (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	220.	5.
71-43-2	BENZENE	ND	1.
75-27-2	BROMODICHLOROMETHANE	ND	1.
75-25-2	BROMOFORM	ND	1.
74-83-9	BROMOMETHANE	ND	5.
78-93-3	2-BUTANONE (MEK)	15.	5.
75-15-0	CARBON DISULFIDE	ND	1.
56-23-5	CARBON TETRACHLORIDE	ND	1.
108-90-7	CHLOROBENZENE	ND	1.
75-00-3	CHLOROETHANE	ND	5.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	10.
67-66-3	CHLOROFORM	ND	1.
74-87-3	CHLOROMETHANE	ND	5.
108-41-8	CHLOROTOLUENE	ND	1.
124-48-1	DIBROMOCHLOROMETHANE	ND	1.
95-50-1	1,2-DICHLOROBENZENE	ND	1.
541-73-1	1,3-DICHLOROBENZENE	ND	1.
106-46-7	1,4-DICHLOROBENZENE	ND	1.
75-34-3	1,1-DICHLOROETHANE	ND	1.
107-06-2	1,2-DICHLOROETHANE	ND	1.
75-35-4	1,1-DICHLOROETHYLENE	ND	1.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	1.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	1.
78-87-5	1,2-DICHLOROPROPANE	ND	1.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	1.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	1.
100-41-4	ETHYLBENZENE	ND	1.
106-93-4	ETHYLENE DIBROMIDE	ND	1.
76-13-1	FREON-TF	ND	1.
119-78-6	2-HEXANONE	ND	5.
75-09-2	METHYLENE CHLORIDE	ND	7.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	5.
100-42-5	STYRENE	ND	1.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	1.
127-18-4	TETRACHLOROETHYLENE	ND	1.
109-99-9	TETRAHYDROFURAN	ND	5.
108-88-3	TOLUENE	ND	1.
71-55-6	1,1,1-TRICHLOROETHANE	2.	1.
79-00-5	1,1,2-TRICHLOROETHANE	ND	1.
79-01-6	TRICHLOROETHYLENE	ND	1.
75-69-4	TRICHLOROFLUOROMETHANE	ND	1.
108-05-4	VINYL ACETATE	ND	5.
75-01-4	VINYL CHLORIDE	ND	5.
95-47-6	TOTAL XYLENES	ND	1.

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT: JOHN L. HUNTER SAMPLE: W-A
WCAS JOB #: 17412

UNITS: UG/L (PPB)

	COMPOUND NAME	FRACTION	APPROXIMATE CONCENTRATION
1	UNIDENTIFIED COMPOUND	VOA	20.

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

INSTRUMENT : TRIO1
DATE ANALYZED: 12/27/90

FILENAME	SAMPLE ID	W/S	1,2-DICHLORO-ETHANE-d4	TOLUENE-d8	BFB
17412V6	3A	S	112	94	93
17412V7	W-A	W	118	95	93

S - SOIL W - WATER

WCAS

Data Reporting Qualifiers

Value - If the result is a value greater than or equal to the Detection Limit (DL), the value is reported.

ND - Indicates that the compound was analyzed for but not detected. The minimum DL for the sample with the ND is reported based on necessary concentration or dilution actions.

TR - Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified DL but greater than zero.

JO[illegible] L. HUNTER & ASSOCIATES INC.
13310 FIRESTONE BLVD., SUITE A-2 * SANTA FE SPRINGS, CA 90670
(213) 802-7880/ (213) 802-2297

PROJECT NAME/NO.: Santa Fe Springs

PROJECT LOCATION.: Liquid Air

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

DATE 12/18/90

Analyses Requested

Sample Number	Date Sampled	Type of Sample: Material	Type of Sample: Method	Type of Container	Type of Preservation: Ambient	Blue Ice	Dry Ice	Other	418.1	8015	8020	CAM	pH	Alkalinity	8260
1A	12/18			Brass cyl.								X	X	X	
2A	12/18			Brass cyl.								X	X	X	
3A	12/18			Brass cyl.								X			X
W-A	12/18											X	X	X	X

12/19/9.

Shipment Method / Special Instructions: Keep Cold

No 17412

Total No. of Samples Shipped: 4

Sampler Signature [signature]

Relinquished By:	Received By:	
Name (Print) SHEILA EMDADI	Name (Print) Mary Mulcahey	Date: 12-18-90
Signature Sheila Emdadi	Signature Mary Mulcahey	Time: 5:50 pm.
Company John L. Hunter & Assoc	Company WCAS	

Relinquished By:	Received By:	
Name (Print)	Name (Print)	Date:
Signature	Signature	Time:
Company	Company	

South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)734-5424

JOB #5515

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter)

Form Approved. OMB No. 2050-0039 Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No.: CAL000021160 — Manifest Document No.: 00001
2. Page 1 of

Information in the shaded areas is not required by Federal law, but is by State law.

GENERATOR

3. Generator's Name and Mailing Address: Liquid Air Corporation, 8832 Dice Rd, Santa Fe Springs CA 90670
4. Generator's Phone (213) 945-1383
5. Transporter 1 Company Name: Suttles Transportation
6. U.S. EPA ID Number: ALD095104011
7. Transporter 2 Company Name:
8. U.S. EPA ID Number:
9. Designated Facility Name and Site Address: ThermalKEM, Inc., Route 5, Vernesdale Road (P.O. Box 2664, CRS), Rock Hill, SC 29730
10. U.S. EPA ID Number: SCD044442333

A. State Manifest Document Number:
B. State Generator's ID: SYCHB30641202
C. State Transporter's ID:
D. Transporter's Phone: 205-289-0670
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: (803) 324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste Poison B Solid NOS Poison UN2811	7	DM	2180	P	D008 D001 D005 D004 D006
b. Waste Poison B Solid NOS Poison UN2811	2	DM	570	P	D001 D005 D002 D004 D006
c. WASTE POISON B SOLID NOS POISON UN2811	1	DF	440	P	D002 D004 D006 D008 D009
d.					

J. Additional Descriptions for Materials Listed Above: California EH Permit #4-89071001

a. ST-00003-7905
b. ST-00003-7904
c. ST-00003-7904
d. -

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Wear Protective Clothing when handling

APPOINTMENT #M7118; SEE ATTACHED MASTER LIST FOR DRUM NUMBERS

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Tit. BARBER — Signature: [signature] — Month Day Year: 07 26 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Charles Robinson — Signature: [signature] — Month Day Year: 07 28 89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

FACILITY

19. Discrepancy Indication Space

a. lbs. c. lbs.
b. lbs. d. lbs.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: — Signature: — Month Day Year:

EPA Form 8700-22 (Rev. 9/86) Previous Editions are Obsolete [DHEC 1988 (Rev. 10/86)]

DICE 02618

Packaging Date [illegible]

Generator LIQUIDAIR CORPORATION Project Number 5515

Drum Type	Drum #	Description	WPS #	Manifest #
17H	140-146	11.A. WASTE POISON B SOLID NOS UN2811, D004/D005/D006/D008 D009	ST0000 3-7905	
17H	147-148	11B. WASTE POISON B SOLID NOS UN2811 D002, D004, D006, D008, D009	ST0000 3-7904	
Poly OP	~~[illegible]~~ 149	11C. SAME AS 11B.	ST0000 3-7904	

ThermalKEM

AMERICAN NuKEM CORPORATION

GENERATOR RESTRICTED WASTE NOTIFICATION
LAND DISPOSAL RESTRICTIONS COMPLIANCE

This form meets generator restricted waste notification to ThermalKEM Inc. of Rock Hill, SC as required by 40 CFR Part 268.7. The notification statement under category IV below is not required by law. However, we strongly request that you adhere to the intent. It has been written and included by ThermalKEM for the safety and benefit of our customers and our employees.

Generator Name/Location Liquid Air Corp 8832 Dice Rd. Santa Fe Springs CA 90670

EPA or State ID Number CAL000021160 Manifest Number _____

Waste Analysis Available? Yes X No ____. If yes, attach copy per 40 CFR Part 268.7 (a) (1) (iv).

I. RESTRICTED WASTE NOTIFICATION (Corresponding Treatment Standard(s)) Certain wastes have been restricted from land disposal effective August 8, 1988, but are treatable at ThermalKEM. Restricted wastes treatable at ThermalKEM are listed in the attached Tables I and II. If your waste is classified as any of those listed in Tables I or II, write the ST number(s) and waste code(s) below and check (✓) the following certification statement. Also circle the appropriate code(s) and treatment standard(s) in the attached tables.

ST Number 00003-7904 Code(s): [redacted] D004 D006 D008 D009

ST Number 00003-7905 Code(s): D001 D005 D006 D008 D009

✓ I notify that I personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). Therefore the waste must be treated by the appropriate regulatory treatment standard (to the appropriate treatment standard, if applicable) prior to land disposal.

II. WASTE SPECIFIC PROHIBITIONS. (California list wastes.) Additional notification is required under 40 CFR Part 268.32 (j) to state specific characteristics for which land disposal is prohibited. If your waste contains any of these constituents or meets any of these properties, please check below.

✓ 1) pH ≤ 2.0 ____ 2) PCB ≥ 50 ppm ____ 3) Halogenated organic carbon, (HOC's) ≥ 1000 mg/l

____ 4) Liquids or any free liquids associated with any solid or sludge, containing the following metals or compounds of these metals:

____ Arsenic (As) ≥ 500 mg/l ____ Cadmium (Cd) ≥ 100 mg/l ____ Chromium, (Cr VI) ≥ 500 mg/l
____ Lead (Pb) ≥ 500 mg/l ____ Free Cyanides ≥ 1000 mg/l ____ Mercury (Hg) ≥ 20 mg/l
____ Nickel (Ni) ≥ 134 mg/l ____ Selenium (Se) ≥ 100 mg/l ____ Thallium (Tl) ≥ 130 mg/l

ST Number 00003-7904 Code(s): D002

ST Number _____ Code(s): _____

III. SOFT HAMMER RESTRICTIONS If your waste is one of the codes listed in Table III, write in the ST Number(s) and waste code(s) and check the following notification statement. Also circle the appropriate waste code(s) in the attached table.

ST Number _____ Code(s): _____

ST Number _____ Code(s): _____

____ I certify under penalty of law that the requirements of 40 CFR 268.8 (a) (1) have been met and that I have contracted to treat my wastes (or will otherwise provide treatment) by the practically available technology which yields the greatest enviornmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

IV. UNRESTRICTED WASTE NOTIFICATION If waste does not fall into the categories listed above in Items I, II, and III, check the following notification statement.

____ I notify that I personally have examined and am familiar with the waste through analysis and testing or though notification that the waste is not restricted as specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA 3004(d).

Signature: [signature] Date: 7-26-89

Print Name: T. I. BABBITT Title: PLT. MGR.

ONLY NOTIFICATIONS WITH ORIGINAL SIGNATURES WILL BE ACCEPTED

Copyright 1988 American NuKEM Corp.

INSTRUCTIONS ON BACK OF FORM

CORPORATION

WASTE CHARACTERIZATION FORM

Authorization Number: ST - 00003 - 7905

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

1. Generator Information:

Generator US EPA ID # CAL000021160 Generator Name: Liquid Air Corp.

Address 8832 Dice Rd City Santa Fe Springs State CA Zip Code 90760

Official Contact Tom Barber Title Plant Mgr Telephone 213-945-1383

SC County (For In-State Generator Only)

2. Broker Information:

Name: ENSCO Environmental Services Official Contact: W. Pouchet Telephone: (714) 256-8666

Address: 17062 Murphy Ave City: Irvine State: CA Zip: 92714

3. General Waste Information:

DOT Shipping Name: Waste Poison B Solid NOS DOT Hazard Class: Poison UN/NA # 2811

4. Physical State:

☐ Powder ☐ Paste ☐ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☒ Other: Granular

5. Inorganics Present:

Total Fluorine trace % Total Bromine ND % Cyanide ND %

Nitric Acid ND % Chromic Acid ND % Sulfur ND %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6. Organics Present:

PCB ND ppm

Dioxins ND ppm

Furans ND ppm

7. Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8. Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9. Biological, Pathological or Etiological Materials: List any present: None

10. Authorization to Correct All: I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [illegible] Title: [illegible] Date: [illegible]

11. Certification For Non-Hazardous Waste: I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12. American NuKEM Representative: _____ Code: _____

☐ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13. To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

GENERAL INFORMATION FOR ARF AND WCF

1. Instructions for completing ThermalKEM's Waste Characterization Form (WCF) are provided below. Instructions for completing the South Carolina Department of Health and Environmental Control (DHEC) Authorization Request Form (ARF) are provided on the reverse side of each page of the ARF. No redundant information is requested on these forms. Providing us accurate and complete forms assures that you will receive the most rapid waste approval. If you need additional assistance, please call ThermalKEM's Approvals Laboratory: (803) 324-5310.

2. South Carolina DHEC regulations require that all the information requested by the ARF and WCF must be provided before wastes can be accepted at ThermalKEM. You need not perform laboratory analysis of your samples. Simply complete these forms to the best of your knowledge considering the origin and use of the materials.

3. Your waste approval will be processed most quickly if you fill out the WCF and ARF completely and accurately. If we find inconsistencies in your ARF's they must be returned to you for correction and resubmitted for final approval. Alternately, to save time you should authorize ThermalKEM to correct your ARF by signing item 10 on the front of this form. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. The most rapid waste approval will be achieved by authorizing ThermalKEM to make your ARF corrections. You will receive a copy of the corrected ARF for your records.

4. If you are requesting approval for lab packs, aerosol cans or compressed gases, please refer to the special protocols for these wastes for additional guidance in completing ARF's. Protocols are available from your American NuKEM representative (see Box 12 on the front of this form) or Customer Service (803) 329-9690.

5. Package this form together with a 16 ounce sample of your waste stream and send to:

Approvals Laboratory
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730

Please do not send samples or paperwork to our sales offices. Please do not send your samples and paperwork separately. These actions slow down the approval of your waste.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE WCF

1. Generator Information
Provide generator's USEPA identification number, name, address, contact person and telephone number. If the generator is in the State of South Carolina, provide the county where the generator's facility is located. If you are a broker, service company or regulatory agency representing a generator, South Carolina DHEC regulations require you to provide the name of the generator in this section.

2. Broker Information
If you are a broker, service company or regulatory agency representing a generator, provide your name, address, telephone number and contact person in this section.

3. General Waste Information
Provide the shipping information that will appear on your manifest.

Example:
DOT shipping name *Waste Paint Related Material*
DOT Hazard Class *Flammable Liquid*
UN/NA *#1263.*

4. Physical State
Check the box (one only) which, in your opinion, best describes the waste. If **"other"** is checked, insert a brief description in the blank.

5. Inorganics Present
If any of the listed constituents are known to be present, insert the amount in weight percent.

6. Organics Present
If any of the listed constituents are known to be present, insert the amount in ppm.

7. Reactivity
Check appropriate box.

8. Carcinogens
Circle any of the listed carcinogens that are known to be present.

9. Biological, Pathological or Etiological Materials
List any of these materials that are known to be present.

10. Authorization to Correct ARF
Sign this authorization if you want ThermalKEM to correct ARF inconsistencies for you. The most rapid waste approval will be achieved by authorizing ThermalKEM to make your ARF corrections. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. You will receive a copy of the corrected ARF for your records.
If you do not authorize ThermalKEM to make corrections, ARF's must be returned to you for your correction and resubmitted for final approval. This extends waste approval time.

11. Certification for Non-Hazardous Waste
You must sign this certification if you are submitting a non-hazardous waste stream for approval. You must complete the WCF and ARF for non-hazardous waste to obtain ThermalKEM's acceptance of the waste for treatment. However, you need not sign the ARF. ThermalKEM is not required to file, nor will file, ARF's for non-hazardous waste with South Carolina DHEC. ThermalKEM utilizes this information only for internal purposes to assure proper handling and treatment of the waste.

12. American NuKEM Representative
This is the name and telephone number of the sales representative responsible for your account. Please feel free to call your representative for additional information.

13. To Be Completed by ThermalKEM
ThermalKEM will determine toxicity and hazard ratings based on ARF information and sample analysis.

SAMPLE SUBMITTAL

Follow these instructions for submitting samples for approval.

1. Label your sample container with the Authorization Number printed on the front page of this form.

2. Package this form together with a 16 ounce sample of your waste stream and send to:

Approvals Laboratory
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730

Please do not send samples or paperwork to our sales offices. Please do not send your samples and paperwork separately. These actions slow down the approval of your waste.

3. Call ThermalKEM's Approval Laboratory (803) 324-5310 if you need guidance on sample packaging and shipping.

4. Samples are not required for lab packs or compressed gases unless specifically requested by ThermalKEM.

AUTHORIZATION REQUEST FORM

___ Amendment ___ New

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

___ Landfill ___ Reclaim
___ Recycle ___ Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

Authorization Number: ST - 00003 - 7905 ← To be entered by TSD Facility

Generator Information:

Generator ID # CAL000021160 Name Liquid Air Corp.

Address 8832 Dice Rd City Santa Fe Spring State CA Zip Code 90760

Official Contact Tom Barber Title Plant Mgr Telephone 213-945-1383 ___ SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name *ThermalKEM Inc.*

___ Line # (This line # will **always** represent this specific waste stream.)

Monkey DUST SPENT AND Solidified
Description of Hazardous Waste

D004 D005 D006 D008 D009 — EPA/DHEC Waste Codes

20 — DOT Hazard Class

Process Producing Waste: Acetylene Gas Purification

Enter Quarter for One-Time Disposal: ___ / X Qtr/yr.

Handling Method: ___

If Multiple Shipments Enter Frequency Here: 4 times/yr.

Volume: (lbs/yr. only) 5000 lb

Physical State of Waste @ 70°F
1. X solid 2. ___ liquid 3. ___ N/A

Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

DICE 02623

General Information

1. This form is to be used as required by the Department.

2. All definitions contained in the South Carolina Hazardous Waste Act (Section 44-56-10 et seq., of the 1976 South Carolina Code of Laws) and Regulation 61-79 shall apply to this form.

3. For this Form to be complete each item must have the appropriate value or N/A (not applicable) listed. If a question still exists concerning the completeness of this Form please contact the Bureau of Solid and Hazardous Waste Management for assistance at the telephone number listed on the front of this Form.

4. If additional space is needed to complete a certain item, attach a separate sheet with the additional information to each copy of this Form. clearly identify which item is being further quantified.

5. Type or print in ink all items of this Form except the signature, which must be signed in ink. All signatures must be original (no stamps, copies or prints).

6. If any item of this Form is found to be incorrect or incomplete the Form will be nullified and promptly returned to the generator at the address listed on the first page of this form.

7. The facility must use this Form as the required written notice to the generators as referenced in South Carolina Hazardous Waste Management Regulations R.61-79.264 Subpart (264.12(b)) and R.61-79.265 Subpart B(265.12(c)).

8. The generator must use this form as required by South Carolina Hazardous Waste Management Regulations R.61-79.262.35 and 262.40.

SPECIFIC INSTRUCTIONS

1. **Top Left Hand Corner:** *(Amendment)* denotes changes on previously completed Authorization Request Form information. When checking (amendment) indicate on page three under other information or on a separate attchment, the item and previous vlue that has changed. *(New)* denotes first time authorization for specified waste stream.

2. **Top Right Hand Corner:** Please check the appropriate type of disposal or treatment activity to be used for waste stream listed on this Authorization Request Form. If the waste stream is designated exclusively for storage at the facility, print in storage under the listing (other).

3. **Authorization Request Form Number:** To be entered by facility.

4. **Generator Information:** Fully complete by entering the generator identification number, ex. SCD000000000, the generator's name and mailing address* should be listed as required; the title of the individual designated as the official contact for the generator and the telephone number at which he or she may be contacted.

* In cases where the address of waste generation does not coincide with that of the generator's mailing address (ex. spills off-site, emergency clean-up, superfund sites etc.) list on the ARF under generator information the location address where waste was generated (not generator's mailing address). Then specify on page 3 under other information or a separate attachment the mailing address of party assuming generator responsibilities.

5. **Treatment, Storage or Disposal Facility Information:** Enter the identification number and name of the facility in spaces provided.

Step

Carefully examine the following format of items 6-10 *(Line #, Description of Hazardous Waste, EPA/DHEC Waste Codes,, DOT Hazard Class and Process Producing Waste)*. Note, that this is the identical format as that for the same items listed on quarterly reports. The waste listed or described in this section of the ARF must be denoted in an identical manner as the corresponding quarterly report in order to comply with regulations.

6. **Line #:** List or assign a line number to the specific waste stream listed on this ARF. The line # listed on this ARF for this particular waste stream must be identical to the line # listed on the corresponding quarterly report describing this waste stream.

7. **Description of Hazardous Waste:** Enter in the designated spaces a simple description of the waste stream.

8. **EPA/DHEC Waste Codes:** Enter the waste code number that most accurately describes the waste stream listed. EPA Hazardous Waste codes (Numbers) are published in the Federal Register Volume 45, Number 98 and the SC Hazardous Waste Management Regulations.

9. **DOT Hazard Class:** Enter the DOT Hazard Class that most accurately describes the waste stream listed (see Handling Methods and DOT Hazard Classes attachment).

10. **Process Producing Waste:** Briefly describe the process by which the waste is produced (Be specific).

11. **Frequency of Disposal:** Enter quarter and year if one time disposal, otherwise enter number of times per year in appropriate space.

12. **Handling Method:** Enter handling method that most accurately describes waste stream treatment, storage or disposal process (see Handling Methods and DOT Hazard Classes attachment).

13. **Volume:** Enter total volume in pounds/year to be treated stored or disposed.

14. **Physical State of Waste:** Check one. N/A may be used for laboratory packs, gas cylinders and etc. The "Paint Filter Liquids Test" as approved by EPA must be used to determine if a waste exists as a solid or liquid.

15. **Flashpoint:** Check one. If laboratory pack or etc. consists largely of substances with similar characteristics (flash point) check the flash point value that most accurately describes the waste stream. If laboratory pack or etc. consists of substances with different characteristics (flash point) chuck N/A. If the waste stream consists of substances with no flash point check N/A. Otherwise denote proper flashpoint.

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

Packaging for Shipment: [X] In Drums (size) [74 55] [ ] In Bulk [ ] Other

Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] **Specific Gravity:** [ ]

Viscosity @70°F: [ ] Low [ ] Medium [X] High **Layering:** [X] None [ ] Bilayered [ ] Multilayered

Suspended Solids: % by weight or volume. Specify exact % [100] **Dissolved Solids:** by % weight. Specify exact % [ ]

Thousands of Btu's/lbs. Specify: [unk] **Organically Bound Sulfur (wt %):** [unk] **Organically Bound Chloride:** [unk]

Organically Bound Nitrogen (Wt %): [unk] **Toxicity:** [ ] High [X] Medium [X] Low [ ] Unknown **Ash %:** [unk]

Affinity for Water: [X] Hydrophilic [ ] Lipophilic **pH** (if hydrophilic): [5]

Visual Description of waste: Granular Yellowish Green

Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
Flammable Debris	10
Proclo Plastic	
Wood D	

Non Volatile Organics	%
Perlite Vermiculite	75
Diatomaceous EARTH	10

Acid or Alkalis	%
KOH	1
NAOH	1
Ferric Chloride	10

Salts & Inorganics	%
Metals	1

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SPECIFIC INSTRUCTION

16. **Packaging for Shipment:** Check one. Indicate the size of the drum. If (other), specify in blank space to the right of item.

17. **Method of Transportation:** Check one. Please specify if (other).

18. **Specific Gravity:** List the appropriate value.

19. **Viscosity:** Check one.

20. **Layering:** Check one.

21. **Suspended Solids:** List exact value if known and circle correct indicator parameter either weight or volume.

22. **Dissolved Solids:** List exact value if known.

23. **Thousands of BTU's/lb:** List exact value if known.

24. **Organically Bound Sulfur:** List exact value if known.

25. **Organically Bound Chloride:** List exact value if known.

26. **Organically Bound Nitrogen:** List exact value if known.

27. **Toxicity:** Check appropriate toxicity for waste stream based on values found in various chemical references. If no value can be found use reasonable judgment.

28. **Ash:** Give a value in percentage:

29. **Affinity for Water:** Check one. Hydrophilic refers to having a strong affinity for bindings of absorbing water. Lipophilic refers to a strong affinity to fats.

30. **pH:** If hydrophilic was checked previously, give exact value. If lipophilic was checked previously, print N/A.

31. **Visual Description:** Give brief visual description of waste stream, include parameters, such as color, physical state, and similarities with commonly known substances. Ex. Light-green dry pellets.

32. **Constituents:** List *specific constituents* by name and corresponding percentage in waste stream. Values in percent by volume must be listed for the following categories: "Volatile Organics," "Non Volatiles," "Acid or Alkalis," "Salts and Inorganics," and "Water." Values in ppm must be listed for the following categories founnd on page 3: "Metallic" and "Toxics." Blank space is provided for those metals not listed on this form but found in the waste stream. If there is not a suitable category for a specific item other than metallics, found in the waste stream, list the item and the appropriate value (Percentage or ppm) under "Other Information" found on page 3. Ex. Crushed Steel Drums 60# . List any categories of chemical compounds that the referenced waste stream will react with under "Other Information." Specific values listed for constituents, must total to plus or minus 4# of the total volume. Constituents values may also be listed in a small range; in this case the minimum and maximum values as totaled are required to be within plus or minus 4# of total volume.

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AUTHORIZATION REQUEST FORM (con't)

Metallic: (total metals not EP Toxcity Test)

As 12-13 ppm	Cr_{+3} unk ppm	Ag ND ppm	Fe 49,000 ppm
Ba 880 ppm	Cr^{+6} unk ppm	Ni 8640 ppm	Sb ND ppm
Cd 12-13 ppm	Hg .18-.22 ppm	Cu 2700 ppm	Mn ND ppm
Pb 1100 ppm	Se ND ppm	Ti ND ppm	Co ND ppm
Zn 2100 ppm	___ ___ ppm	___ ___ ppm	___ ___ ppm

Toxics

Cyanide	ND ppm
Pesticides	ND ppm
Carcinogens	unk ppm
Other Toxics	unk ppm

Other Information: See Attached Analytical and MSDS's

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ **Date Submitted:** _____

Print Name: _____ **Title:** _____

TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: _____ **Date Submitted:** _____

Print Name: _____ **Title:** _____

DICE 02627

SPECIFIC INSTRUCTION

33. See page 2 under **("Constituents") for instructions on the listing of "Metallic," "Toxics,"** and **"Other Information"** values.

34. **Certification:** Must be signed by appropriate managerial personnel representing the company generating the waste stream referenced on this Form.

35. **TSD Facility Certification:** Must be signed by appropriate managerial personnel representing the facility to treat, dispose, or store waste stream as referenced on this Form.

36. Normally once this Form is completed and signed by the correct parties, it may be submitted to The Department of Health and Environmental Control thru the facility. Please check with the facility on specific instructions concerning disposal procedures.

HANDLING METHODS AND DOT HAZARD CLASSES

1. **Storage**

S01 Container (barrel, drum, etc.)
S02 Tank
S03 Waste pile
S04 Surface impoundment
S05 Other (specify)

2. **Treatment**

(a) Thermal Treatment

T06 Liquid injection incinerator
T07 Rotary kiln incinerator
T08 Fluidized bed incinerator
T09 Multiple hearth incinerator
T10 Infrared furnace incinerator
T11 Molten salt destructor
T12 Pyrolysis
T13 Wet Air oxidation
T14 Calcination
T15 Microwave discharge
T16 Cement kiln
T17 Lime kiln
T18 Other (specify)

(b) Chemical Treatment

T19 Absorption mound
T20 Absorption field
T21 Chemical fixation
T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation
T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)

(c) Physical Treatment

(1) Separation of Components

T35 Centrifugation
T36 Clarification
T37 Coagulation
T38 Decanting
T39 Encapsulation
T40 Filtration
T41 Flocculation
T42 Flotation
T43 Foaming
T44 Sedimentation
T45 Thickening
T46 Ultrafiltration
T47 Other (specify)

(2) Removal of Specific Components

T48 Absortion-molecular sieve
T49 Activated carbon
T50 Blending
T51 Catalysis
T52 Crystallization
T53 Dialysis
T54 Distillation
T55 Electrodialysis
T56 Electrolysis
T57 Evaporation
T58 High gradient magnetic separation
T59 Leaching
T60 Liquid ion exchange
T61 Liquid-liquid extraction
T62 Reverse osmosis
T63 Solvent recovery
T64 Stripping
T65 Sand filter
T66 Other (specify)

(d) Biological Treatment

T67 Activated sludge
T68 Aerobic lagoon
T69 Aerobic tank
T70 Anaerobic lagoon
T71 Composting
T72 Septic tank
T73 Spray irrigation
T74 Thickening filter
T75 Trickling filter
T76 Waste stabilization pond
T77 Other (specify)
T78 (Reserved)
T79 (Reserved)

3. **Disposal**

D80 Underground injection
D81 Landfill
D82 Land treatment
D83 Ocean disposal
D84 Surface impoundment (to be closed as a landfill)
D85 Other (specify)

4. **Recovery**

R86 Solvent Reclamation
R87 Precious Metal Reclamation
R88 Heavy Metal Reclamation
R89 Wasteoil Recycling
R90 Waste Battery Recycling
R91 Other (type of Recovery)

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DOT HAZARD CLASS

Combustible	01	Organic peroxide	12
Corrosive	02	ORM-A	13
Etiologic agent	03	ORM-B	14
Explosive A	04	ORM-C	15
Explosive B	05	ORM-D	16
Explosive C	06	ORM-E	17
Flammable gas	07	Oxidizer	18
Flammable liquid	08	Poison A	19
Flammable solid	09	Poison B	20
Irritating agent	10	Radioactive	21
Nonflammable gas	11	Lab pack	22

NOTE: These DOT Hazard Classes are to be used on the Hazardous Waste Index Form [DHEC 1960 (7/84)] and the Authorization Request Form only and not on the hazardous waste manifest.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#14

Sample Number
9050973

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	12
Barium	(7080)	100	10000	10	810
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	12
Chromium	(7191)	560	2500	0.5	420
Cobalt	(7200)	80	8000	1.0	14
Copper	(7210)	25	2500	1.0	2300
Iron	(7380)	NA	NA	1.0	40000
Lead	(7420)	5.0	1000	1.0	1700
Mercury	(7471)	0.2	20	0.1	0.19
Molybdenum	(7480)	350	3500	1.0	19
Nickel	(7520)	20	2000	1.0	86
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	9.0
Zinc	(7950)	250	5000	1.0	2000
Calcium	(7140)	NA	NA	1.0	2700
Sodium	(7770)	NA	NA	1.0	1300
Magnesium	(7450)	NA	NA	1.0	820
Potassium	(7610)	NA	NA	1.0	420

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#14

Sample Number
9060973

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	1300
Potassium	(7610)	1.0	420
Chloride	(9252)	1.0	3800
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	1600
pH	(9040)	NA	5.5

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

Spent Monkey Dust

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#12

Sample Number
9050971

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	13
Barium	(7080)	100	10000	10	870
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	13
Chromium	(7191)	560	2500	0.5	420
Cobalt	(7200)	80	8000	1.0	15
Copper	(7210)	25	2500	1.0	2300
Iron	(7380)	NA	NA	1.0	37000 3.7%
Lead	(7420)	5.0	1000	1.0	1700
Mercury	(7471)	0.2	20	0.1	0.18
Molybdenum	(7480)	350	3500	1.0	20
Nickel	(7520)	20	2000	1.0	90
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	N.D.
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	13
Zinc	(7950)	250	5000	1.0	2000
Calcium	(7140)	NA	NA	1.0	3400 .34
Sodium	(7770)	NA	NA	1.0	1400
Magnesium	(7450)	NA	NA	1.0	1600
Potassium	(7610)	NA	NA	1.0	810

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#12	9060971

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	1400
Potassium	(7610)	1.0	810
Chloride	(9252)	1.0	2200
Nitrate	(9200)	1.0	4.4
Sulfate	(9038)	1.0	1700
pH	(9040)	NA	6.3

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/15/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description
#13

Sample Number
9050972

Analysis	*EPA Method	STLC Limit mg/L	TTLC Limit mg/Kg	Detection Limits mg/Kg	Sample Result TTLC mg/Kg
Antimony	(7040)	15	500	10	N.D.
Arsenic	(7060)	5.0	500	1.0	12
Barium	(7080)	100	10000	10	880
Beryllium	(7090)	0.75	75	5	N.D.
Cadmium	(7130)	1.0	100	0.05	12
Chromium	(7191)	560	2500	0.5	430
Cobalt	(7200)	80	8000	1.0	15
Copper	(7210)	25	2500	1.0	2300
Iron	(7380)	NA	NA	1.0	42000
Lead	(7420)	5.0	1000	1.0	1800
Mercury	(7471)	0.2	20	0.1	0.22
Molybdenum	(7480)	350	3500	1.0	22
Nickel	(7520)	20	2000	1.0	95
Selenium	(7740)	1.0	100	1.0	N.D.
Silver	(7760)	5	500	1.0	1.4
Thallium	(7840)	7.0	700	10	N.D.
Vanadium	(7910)	24	2400	1.0	14
Zinc	(7950)	250	5000	1.0	2100
Calcium	(7140)	NA	NA	1.0	3000
Sodium	(7770)	NA	NA	1.0	1400
Magnesium	(7450)	NA	NA	1.0	1500
Potassium	(7610)	NA	NA	1.0	740

N.D. - None Detected

*SW-846 3rd Ed.

Del Mar Analytical

Gary Steube
Laboratory Director

Del Mar Analytical
18102 Sky Park South, Suite F • Irvine, CA 92714
(714) 261-1022 • FAX (714) 261-1228

Ensco Environmental Services
17062 Murphy Avenue, Unit B
Irvine, CA 92714

Date Sampled: 05/22/89
Date Received: 05/30/89
Date Analyzed: 06/14/89
Date Reported: 06/21/89

Attention: Walt Pouchot

Project: Liquid Air Corporation

Sample Description	Sample Number
#13	9060972

Analysis: Scan for Acids and Bases

Analysis	* EPA Method	Detection Limits ppm	Sample Result ppm
Sodium	(7770)	1.0	1400
Potassium	(7610)	1.0	740
Chloride	(9252)	1.0	2200
Nitrate	(9200)	1.0	N.D.
Sulfate	(9038)	1.0	1700
pH	(9040)	NA	6.2

Del Mar Analytical

Gary Steube
Laboratory Director

N.D. = None Detected

*SW-846 3rd Ed.

Control (DHEC) Authorization Request Form (ARF) before wastes can be accepted for Approvals Laboratory, ThermalKEM 2324 Vernedale Road Rock Hill, SC 29730.
INSTRUCTIONS ON BACK OF FORM

CORPORATION

WASTE CHARACTERIZATION FORM

Authorization Number: ST - 00003 - 7904

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

1. Generator Information:

Generator US EPA ID # CAL 000021160 Generator Name: Liquid Air Corp.

Address 8832 Dice Rd City Santafe Springs State CA Zip Code 90670

Official Contact Tom Barker Title Plant Manager Telephone 213-945-1387

SC County (For In-State Generator Only)

2. Broker Information:

Name: ENVSCO Environmental Services Official Contact: W. Pouchot / AK Telephone: (714) 756-8666

Address: 17062 Murphy Ave City: Irvine State: CA Zip: 92714

3. General Waste Information:

DOT Shipping Name: Waste Poison B Solid NOS DOT Hazard Class: Poison UN/NA # 2811

4. Physical State:

☐ Powder ☐ Paste ☐ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☒ Other: Granular

5. Inorganics Present:

Total Fluorine ND % Total Bromine ND % Cyanide ND %

Nitric Acid ND % Chromic Acid ND % Sulfur ND %

Sodium Hydroxide <10 % Potassium Hydroxide <1 %

6. Organics Present:

PCB None ppm

Dioxins None ppm

Furans None ppm

7. Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8. Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9. Biological, Pathological or Etiological Materials: List any present: None

10. Authorization to Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: Title: Date:

11. Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12. American NuKEM Representative: Code:

☐ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13. To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Soecial

DICE 02637

GENERAL INFORMATION FOR ARF AND WCF

1. Instructions for completing ThermalKEM's Waste Characterization Form (WCF) are provided below. Instructions for completing the South Carolina Department of Health and Environmental Control (DHEC) Authorization Request Form (ARF) are provided on the reverse side of each page of the ARF. No redundant information is requested on these forms. Providing us accurate and complete forms assures that you will receive the most rapid waste approval. If you need additional assistance, please call ThermalKEM's Approvals Laboratory: (803) 324-5310.

2. South Carolina DHEC regulations require that all the information requested by the ARF and WCF must be provided before wastes can be accepted at ThermalKEM. You need not perform laboratory analysis of your samples. Simply complete these forms to the best of your knowledge considering the origin and use of the materials.

3. Your waste approval will be processed most quickly if you fill out the WCF and ARF completely and accurately. If we find inconsistencies in your ARF's they must be returned to you for correction and resubmitted for final approval. Alternately, to save time you should authorize ThermalKEM to correct your ARF by signing item 10 on the front of this form. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. The most rapid waste approval will be achieved by authorizing ThermalKEM to make your ARF corrections. You will receive a copy of the corrected ARF for your records.

4. If you are requesting approval for lab packs, aerosol cans or compressed gases, please refer to the special protocols for these wastes for additional guidance in completing ARF's. Protocols are available from your American NuKEM representative (see Box 12 on the front of this form) or Customer Service (803) 329-9690.

5. Package this form together with a 16 ounce sample of your waste stream and send to:

Approvals Laboratory
ThermalKEM Inc.
2324 Vernedale Road
Rock Hill, SC 29730

Please do not send samples or paperwork to our sales offices. Please do not send your samples and paperwork separately. These actions slow down the approval of your waste.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE WCF

1. **Generator Information**
Provide generator's USEPA identification number, name, address, contact person and telephone number. If the generator is in the State of South Carolina, provide the county where the generator's facility is located. If you are a broker, service company or regulatory agency representing a generator, South Carolina DHEC regulations require you to provide the name of the generator in this section.

2. **Broker Information**
If you are a broker, service company or regulatory agency representing a generator, provide your name, address, telephone number and contact person in this section.

3. **General Waste Information**
Provide the shipping information that will appear on your manifest.

Example:
DOT shipping name *Waste Paint Related Material*
DOT Hazard Class *Flammable Liquid*
UN/NA *#1263.*

4. **Physical State**
Check the box (one only) which, in your opinion, best describes the waste. If "other" is checked, insert a brief description in the blank.

5. **Inorganics Present**
If any of the listed constituents are known to be present, insert the amount in weight percent.

6. **Organics Present**
If any of the listed constituents are known to be present, insert the amount in ppm.

7. **Reactivity**
Check appropriate box.

8. **Carcinogens**
Circle any of the listed carcinogens that are known to be present.

9. **Biological, Pathological or Etiological Materials**
List any of these materials that are known to be present.

10. **Authorization to Correct ARF**
Sign this authorization if you want ThermalKEM to correct ARF inconsistencies for you. The most rapid waste approval will be achieved by authorizing ThermalKEM to make your ARF corrections. All corrections will be consistent with the results of sample characterization and/or regulatory requirements. You will receive a copy of the corrected ARF for your records. If you do not authorize ThermalKEM to make corrections, ARF's must be returned to you for your correction and resubmitted for final approval. This extends waste approval time.

11. **Certification for Non-Hazardous Waste**
You must sign this certification if you are submitting a non-hazardous waste stream for approval. You must complete the WCF and ARF for non-hazardous waste to obtain ThermalKEM's acceptance of the waste for treatment. However, you need not sign the ARF. ThermalKEM is not required to file, nor will file, ARF's for non-hazardous waste with South Carolina DHEC. ThermalKEM utilizes this information only for internal purposes to assure proper handling and treatment of the waste.

12. **American NuKEM Representative**
This is the name and telephone number of the sales representative responsible for your account. Please feel free to call your representative for additional information.

13. **To Be Completed by ThermalKEM**
ThermalKEM will determine toxicity and hazard ratings based on ARF information and sample analysis.

SAMPLE SUBMITTAL

Follow these instructions for submitting samples for approval:

1. Label your sample container with the Authorization Number printed on the front page of this form.

2. Package this form together with a 16 ounce sample of your waste stream and send to:

Approvals Laboratory
ThermalKEM Inc.
2324 Vernedale Road
Rock Hill, SC 29730

Please do not send samples or paperwork to our sales offices. Please do not send your samples and paperwork separately. These actions slow down the approval of your waste.

3. Call ThermalKEM's Approval Laboratory: (803) 324-5310 if you need guidance on sample packaging and shipping.

4. Samples are not required for lab packs or compressed gases unless specifically requested by ThermalKEM.

AUTHORIZATION REQUEST FORM

___ Amendment ___ New

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

___ Landfill ___ Reclaim
___ Recycle ___ Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

Authorization Number: ST - 00003 - 7904 ← To be entered by TSD Facility

Generator Information:

Generator ID # CAL 000021160 Name Liquid Air Corp.

Address 8832 Dice Rd City Santafe Springs State CA Zip Code 90670

Official Contact Tom Barber Title Plant Manager Telephone 213-945-1383

SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCD0 44442333 Name *ThermalKEM Inc.*

___ Line # (This line # will **always** represent this specific waste stream.)

Monkey Dust spent and solidified

Description of Hazardous Waste

D002 D004 D006 D008 D009 2.0

EPA/DHEC Waste Codes DOT Hazard Class

Process Producing Waste: Acetylene gas purification

Enter Quarter for One-Time Disposal: ___ / X Qtr/yr.

Handling Method: ___

If Multiple Shipments Enter Frequency Here: 4 times/yr.

Volume: (lbs/yr. only) 5000#

Physical State of Waste @ 70°F
1. X solid 2. ___ liquid 3. ___ N/A

Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

Page

DICE 02639

General Information

1. This form is to be used as required by the Department.

2. All definitions contained in the South Carolina Hazardous Waste Act (Section 44-56-10 et seq., of the 1976 South Carolina Code of Laws) and Regulation 61-79 shall apply to this form.

3. For this Form to be complete each item must have the appropriate value or N/A (not applicable) listed. If a question still exists concerning the completeness of this Form please contact the Bureau of Solid and Hazardous Waste Management for assistance at the telephone number listed on the front of this Form.

4. If additional space is needed to complete a certain item, attach a separate sheet with the additional information to each copy of this Form. clearly identify which item is being further quantified.

5. Type or print in ink all items of this Form except the signature, which must be signed in ink. All signatures must be original (no stamps, copies or prints).

6. If any item of this Form is found to be incorrect or incomplete the Form will be nullified and promptly returned to the generator at the address listed on the first page of this form.

7. The facility must use this Form as the required written notice to the generators as referenced in South Carolina Hazardous Waste Management Regulations R.61-79.264 Subpart (264.12(b)) and R.61-79.265 Subpart B(265.12(c)).

8. The generator must use this form as required by South Carolina Hazardous Waste Management Regulations R.61-79.262.35 and 262.40.

SPECIFIC INSTRUCTIONS

1. **Top Left Hand Corner:** *(Amendment)* denotes changes on previously completed Authorization Request Form information. When checking (amendment) indicate on page three under other information or on a separate attchment, the item and previous vlue that has changed. *(New)* denotes first time authorization for specified waste stream.

2. **Top Right Hand Corner:** Please check the appropriate type of disposal or treatment activity to be used for waste stream listed on this Authorization Request Form. If the waste stream is designated exclusively for storage at the facility, print in storage under the listing (other).

3. **Authorization Request Form Number:** To be entered by facility.

4. **Generator Information:** Fully complete by entering the generator identification number, ex. SCD000000000, the generator's name and mailing address* should be listed as required; the title of the individual designated as the official contact for the generator and the telephone number at which he or she may be contacted.

* In cases where the address of waste generation does not coincide with that of the generator's mailing address (ex. spills off-site, emergency clean-up, superfund sites etc.) list on the ARF under generator information the location address where waste was generated (not generator's mailing address). Then specify on page 3 under other information or a separate attachment the mailing address of party assuming generator responsibilities.

5. **Treatment, Storage or Disposal Facility Information:** Enter the identification number and name of the facility in spaces provided.

Stop

Carefully examine the following format of items 6-10 *(Line #, Description of Hazardous Waste, EPA/DHEC Waste Codes,, DOT Hazard Class and Process Producing Waste)*. Note, that this is the identical format as that for the same items listed on quarterly reports. The waste listed or described in this section of the ARF must be denoted in an identical manner as the corresponding quarterly report in order to comply with regulations.

6. **Line #:** List or assign a line number to the specific waste stream listed on this ARF. The line # listed on this ARF for this particular waste stream must be identical to the line # listed on the corresponding quarterly report describing this waste stream.

7. **Description of Hazardous Waste:** Enter in the designated spaces a simple description of the waste stream.

8. **EPA/DHEC Waste Codes:** Enter the waste code number that most accurately describes the waste stream listed. EPA Hazardous Waste codes (Numbers) are published in the Federal Register Volume 45, Number 98 and the SC Hazardous Waste Management Regulations.

9. **DOT Hazard Class:** Enter the DOT Hazard Class that most accurately describes the waste stream listed (see Handling Methods and DOT Hazard Classes attachment).

10. **Process Producing Waste:** Briefly describe the process by which the waste is produced (Be specific).

11. **Frequency of Disposal:** Enter quarter and year if one time disposal, otherwise enter number of times per year in appropriate space.

12. **Handling Method:** Enter handling method that most accurately describes waste stream treatment, storage or disposal process (see Handling Methods and DOT Hazard Classes attachment).

13. **Volume:** Enter total volume in pounds/year to be treated stored or disposed.

14. **Physical State of Waste:** Check one. N/A may be used for laboratory packs, gas cylinders and etc. The "Paint Filter Liquids Test" as approved by EPA must be used to determine if a waste exists as a solid or liquid.

15. **Flashpoint:** Check one. If laboratory pack or etc. consists largely of substances with similar characteristics (flash point) check the flash point value that most accurately describes the waste stream. If laboratory pack or etc. consists of substances with different characteristics (flash point) check N/A. If the waste stream consists of substances with no flash point check N/A. Otherwise denote proper flashpoint.

DICE 02640

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER-FACILITIES
SANITATION DIVISION

CONDITIONS AND LIMITATIONS
INDUSTRIAL WASTE DISPOSAL PERMIT NO.

1. Wastewater produced from
and discharged to the subsurface disposal system shall comply with the following requirements:

a. Wastewater discharge quality limits:

PARAMETER	UNITS	MAXIMUM LIMITS
Total dissolved solids	mg/l	700
Sulfate	mg/l	250
Chloride	mg/l	250
Boron	mg/l	1.5
pH	pH units	Within limits of 6.0 and 9.0 at all times

b. The maximum allowable daily mass emission rate for each parameter listed above in Requirement 1:a, shall not exceed a value calculated from the total waste flow occurring each specific day and the maximum limit listed for that parameter. The total waste flow shall not exceed _____ gallons per day.

c. The maximum allowable monthly mass emission rate for each parameter listed above in Requirement 1.a, shall not exceed a value calculated from the total waste flow occurring each specific month and the maximum limit listed for that parameter. The total waste flow shall not exceed _____ gallons per month.

d. The discharge shall not contain heavy metals, arsenic, or cyanide in concentrations in excess of the mandatory limits contained in the current State of California Public Health Drinking Water Standards.

e. The discharge shall not cause the formation of objectionable solids or discoloration in the receiving waters.

f. The discharge shall not cause concentrations of hydrogen sulfide, phenols, mercaptans, or other substances which would produce objectionable tastes or odors in underground waters.

DICE 02641

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

REGION FILE

INSPECTOR'S REPORT

TO: ROGER HIGBEE DATE: FEBRUARY 8, 1977

FROM: JERRY WONG FILE: I-225-1H

INDUSTRY: LIQUID AIR, INC.
8832 DICE RD., SANTA FE SPRINGS

REPORT:

ON A ROUTINE TRAP CARD INSPECTION, I CONTACTED MR. BILL ALDRICH, PLANT MANAGER OF THE COMPANY. HE SHOWED ME A COPY OF NYDES PERMIT, WHICH ALLOW THIS COMPANY TO DISCHARGES SPRAY COOLING WATER AND ACETYLENE PROCESS WASTE WATER TO NORTH FORK COYOTE CREEK.

761550L-15-CE 658-2-70

DICE 02642

I-225

STEPHEN J. KOONCE
COUNTY ENGINEER

RAYMOND W. LOOMIS
CHIEF DEPUTY

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER-FACILITIES
550 SOUTH VERMONT, LOS ANGELES, CA 90020

(213) 738-2011

June 7, 1982

BOARD OF SUPERVISORS

PETER F. SCHABARUM
KENNETH HAHN
EDMUND D. EDELMAN
DEANE DANA
MICHAEL D. ANTONOVICH

Liquid Air Corporation
One Embarcadero Center
San Francisco, CA 94111

File No. I-225-1H

Attention: Mr. Steven L. Pebler

Gentlemen:

LIQUID AIR CORPORATION
8832 S. DICE ROAD
CITY OF SANTA FE SPRINGS

Enclosed is Industrial Wastewater Discharge Permit No. 4784-R1 for the disposal of wastes from operations at the subject location. All industrial wastes shall be disposed of in accordance with this permit and the attached special conditions and limitations. This permit or copies thereof should be kept on the premises for which the permit is issued.

It is important that the required facilities be regularly cleaned and maintained. After commencing operations, the Industrial Waste Engineering Inspector in your area will inspect the pretreatment process, explain the permit conditions, and make periodic inspections of your operations. Your full cooperation in preventing pollution is essential to the welfare of the community.

If you have any questions concerning this permit, please call this office at (213) 738-2525.

Very truly yours,

STEPHEN J. KOONCE
County Engineer

Original Signed

David Yamahara
Supervising Civil Engineer III
Sanitation Division

DY:rw 41

Enclosures
cc: City of Santa Fe Springs, Mr. John Price, Director of Public Works
Los Angeles County Sanitation Districts, Industrial Waste Section

5-6-81 (5) dc: DY,PI,Reg.1,File

DICE 02643

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER-FACILITIES

INDUSTRIAL WASTE SEWER DISPOSAL
CONDITIONS AND LIMITATIONS
INDUSTRIAL WASTE DISPOSAL PERMIT NO.4784-R1

1. The maximum flow rate to the sewer shall be 7.5 gpm.

2. All liquid industrial wastes and water soluble solid wastes not acceptable for discharge into the public sanitary sewerage system shall be stored in leakproof containers pending transportation to a legal point of disposal. The permittee shall certify the source, quantity, and point of disposal by signing a California Hazardous Waste Manifest. A copy of the California Hazardous Waste Manifest is attached.

3. Copies of the completed California Hazardous Waste Manifest must be obtained and kept on file for a period of at least 180 days for any liquid industrial wastes transported from the site. The Manifest shall be made available to representatives of the County Engineer upon request.

4. Waste disposal operations shall be conducted in such a manner that no nuisance is created.

5. Representatives of interested governmental agencies concerned with the disposal of industrial wastes shall be permitted access at any reasonable time to take samples and inspect operations.

6. The permittee shall secure written approval from this Department before making any additions or modifications which may affect the quantity, quality, or method of disposal of waste materials. Requests or plans for additions or modifications to waste treatment facilities or method of disposal must be submitted for approval to the Department of County Engineer-Facilities, Sanitation Division, 550 S. Vermont Avenue, Los Angeles, California 90020.

7. This permit is subject to suspension or revocation if conditions exist which would justify denial of a permit or if permittee fails to correct unsatisfactory conditions.

8. All required industrial waste collection, treatment and disposal facilities must be installed prior to initiating any discharge.

9. In the event of any change of ownership, name or control of the waste disposal facilities the permittee shall notify the County Engineer of such change. He shall also notify the succeeding owner or operator of the existence of this permit by letter, a copy of which shall be forwarded to the County Engineer.

DICE 02644

10. The County Engineer may modify this permit by addition, revision, or elimination of conditions and limitations as may be necessary to accomplish the purpose of ordinances and laws covering disposal of waste materials.

11. Violation of any of the conditions of the permit shall be cause for suspension or revocation of this permit.

12. A copy of this permit shall be maintained on the premises where it will be available at all times to operating personnel.

DICE 02645

RECEIVED
MAY 25 1982
SANITATION

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road / Whittier, California
Mailing Address: / P. O. Box 4998, Whittier, California 90607
Telephone: (213) 699-7411 / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

May 20, 1982

File:18-00.05-00/82-4784L

Mr. Rezai Khojasteh
Dept. of County Engineer-Facilities
Sanitation Division-3rd Floor
550 South Vermont Avenue
Los Angeles, CA 90020

Dear Mr. Khojasteh:

Industrial Wastewater Discharge Permit No. 4784 R-1

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Enclosed are copies of the approved Industrial Wastewater Discharge Permit and the Additional Information Questionnaire for industrial waste discharge from subject company. Please review these for compliance with your requirements, and retain the copies you require for your files. A copy of this letter is forwarded to the applicant to notify him of the Sanitation Districts' permit requirements, which are in force from the current date. If any additional permit requirements are issued to the applicant by your agency, copies should be forwarded to the Sanitation Districts for our records.

Approval of the permit is contingent upon continuing compliance with all applicable Ordinance requirements, and upon the following specific requirements:

1. The permittee is required to adopt a program of regular interceptor maintenance and cleaning at intervals frequent enough to prevent a build-up of grit, oil, or grease which may enter the sewer.

2. The permittee is requested to notify the Sanitation Districts of any change in the status of the subject facility, if its operation is resumed, if ownership or operating responsibility changes, or if the industrial waste connection is legally abandoned.

3. Any proposed revisions which result in a significant change in wastewater quantity or quality (approximately 25% or more or 25,000 gallons per day) from the values reported in the permit application will require a new permit application to be submitted for the Districts' approval.

If you have any questions concerning these requirements, please contact Mr. Lory Rising of the Sanitation Districts' Industrial Waste Section at extension 260.

Very truly yours,

Walter E. Garrison

Leon S. Directo

Leon S. Directo
Supervising Civil Engineer

LSD:LR:wh

cc: Liquid Air Corp.
One Embarcadero Center
San Francisco, CA 94111

Attn: Steven L. Pebler

APPLICATION NO.
Z 05668

EXISTING INDUSTRY
PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE
SANITATION DISTRICTS OF LOS ANGELES COUNTY
1955 Workman Mill Road / Whittier, Ca.
Mailing Address: / P.O. Box 4998, Whittier, California 90607
Walter E. Garrison, Chief Engineer and General Manager

[redacted], Calif. 2 / [redacted]
(MO. DAY YR.)

01 APPLICATION IS HEREBY MADE BY [redacted] (PRINT) (FIRM NAME)

02 (Mailing Address) [redacted] (STREET) [redacted] (CITY) CA. (STATE) [redacted] (ZIP)

03 [redacted] (OWNER, TENANT, ETC.) of the property located at:

04 (Street [redacted] (PRINT) (City) [redacted] (Zip) [redacted]
(ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE)

05 Assessors Map Book No. [redacted] Page No. [redacted] Parcel No. [redacted]
(LEGAL ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE)

06 [redacted] (PRINT) (LOCATION OF POINT OF WASTEWATER DISCHARGE TO SEWERAGE SYSTEM)

for a Permit for Industrial Wastewater Discharge to the sewerage system.

07 Type of Industry [redacted] (GENERAL DESCRIPTION) [redacted] (FEDERAL SIC NOS.)

08 Number of Employees (Full Time) 35 (Part Time) [redacted]

09 Raw Materials Used [redacted]
(GENERAL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED)

10 Products Produced [redacted]
(GENERAL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED)

11 Wastewater Producing Operations [redacted]
(FULL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED)

12 Time of Discharge – [redacted] AM/[redacted] to [redacted] (WORKING DAY – CROSS OUT AM OR PM) Days per Week M T W Th F [redacted] (CIRCLE DAYS)

13 Wastewater Flow Rate [redacted] (Gallons Per Day)

14 Constituents of Wastewater Discharge [redacted]
(GENERAL DESCRIPTION – ATTACH CHEMICAL ANALYSES RESULTS TO THIS APPLICATION)

15 Person in company responsible for industrial wastewater discharge:

[redacted] (PRINT) (NAME) [redacted] (POSITION) (213) [redacted] (TELEPHONE NUMBER)

I affirm that all information furnished is true and correct and that the applicant will comply with the conditions stated on the back of this permit form.

Date Feb. 25, 1982

16 Signature for Applicant [redacted] (COMPANY ADMINISTRATIVE OFFICIAL) (NAME) Plant Manager (POSITION)

17 Approved by City or County Official

Date 4/27/82

For Dept. of County Engineers ..... ☒ I-225-1H

City of ☐

Name [redacted]

Position Supv. CET

18 Approved by Sanitation Districts of Los Angeles County

Date May 20, 1982

Walter E. Garrison, Chief Engineer and General Manager

by Alfeo C. Reyes

Position Engr. Assoc. II

Note: Please submit application first to City or County Agency who may require a permit fee.
This form when properly signed shall be a valid permit unless suspended or revoked.

COUNTY ENGINEER'S COPY

DICE 02648

APPLICANT FOR PERMIT MUST READ THIS MATERIAL

IN CONSIDERATION OF THE GRANTING OF THIS PERMIT, the applicant agrees:

1. To furnish any additional information on industrial wastewater discharges as required by the Sanitation Districts,
2. To accept and abide by all provisions of Ordinances of the Sanitation Districts of Los Angeles County,
3. To operate and maintain any required industrial wastewater treatment devices in a satisfactory approved manner,
4. To cooperate at all times with Sanitation Districts' personnel, or their representatives, in the inspection, sampling and study of industrial wastewater facilities and discharges,
5. To notify the Sanitation Districts at (213) 699–7411, Ext. 262, or 775-2351 (Nights) immediately in the event of any accident, negligence or other occurrence that causes the discharge to the sewer of any material whose nature and quantity might be reasonably judged to constitute a hazard to Districts' personnel, wastewater treatment facilities or the environment,
6. To pay to the Sanitation Districts annually the required surcharge or user charge fee for industrial wastewater treatement,
7. To submit, as required by the Sanitation Districts, accurate data on industrial wastewater discharge flows and wastewater constituents,
8. To operate only <u>one</u> industrial wastewater discharge point to the sewerage system under the authority granted by this permit,
9. To submit additional pages as required to furnish the necessary information if inadequate room on the reverse side of this permit form is available for complete submittal of requested data,
10. To apply for a revised Districts' industrial wastewater discharge permit if any change in industrial processes or operations creates a significant change in industrial wastewater quality or quantity,
11. To provide immediate access to authorized personnel of the Districts to any facility directly or indirectly connected to the Districts' sewerage system under emergency conditions and at all other reasonable times.

PERMIT NO. [illegible] R-1

ADDITIONAL INFORMATION QUESTIONNAIRE FOR PERMIT APPLICANTS

SANITATION DISTRICTS OF LOS ANGELES COUNTY
1955 Workman Mill Rd., P.O. Box 4998, Whittier, CA. 90607
John D. Parkhurst, Chief Engineer and General Manager

SANTA FE SPRINGS, Calif. 2 / 19 / 82 (MO. DAY YR.)

Name of Company LIQUID AIR CORPORATION S.I.C. No. 2813

Mailing Address (PRINT) 8832 Dice Road (STREET) Santa Fe Springs, (CITY) CA (STATE) 90670 (ZIP)

Address of Wastewater Discharge (PRINT) 8832 Dice Road (STREET) Santa Fe Springs, (CITY) CA (STATE) 90670 (ZIP)

Legal Address 8 1 1 6 8 (MAP BOOK NO.) 0 1 3 (PAGE NO.) 007,008 (PARCEL NO.) Permit Application No. Z 05668

IF YOUR COMPANY DISCHARGES OR WILL DISCHARGE TO THE SEWER any of the wastewater constituents listed below, please check the appropriate box:

1. Flammable wastes (406A) ☐
2. Toxic or poisonous wastes (406B) ☐
3. Acidic materials (pH less than 6.0) (406C) ☐
4. Materials that could obstruct the sewer (406D) ☐
5. Rainwater (406E) ☐
6. Dilution water (406F) ☐
7. Petroleum based soluble cutting oils (406G) ☐
8. Any quantities of petroleum based oils (406H) ☐
9. Cyanide wastes (406J) ☐
10. Total dissolved solids above 5000 mg/l (406K) ☐
11. Highly odorous wastes (406M) ☐
12. Dissolved sulfides over 0.1 mg/l (406N) ☐
13. Basic materials (pH greater than 10.5) (4060) ☐
14. Toxic gases (406P) ☐
15. Temperature over 120° F. (406Q) ☐
16. Highly colored wastes (406V) ☐
17. Wastes larger than 3/8" in diameter (406W) ☐
18. Any arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, tin, zinc, or other toxic materials (406X) ☐
19. Blow down or bleed water from cooling towers, boilers or evaporative coolers (406Y) ☐
20. Single pass cooling water (406Z) ☐
21. Radioactive materials (406AA) ☐
22. Recognizable portions of the human anatomy (406BB) ☐

NOTE: Numbers in parentheses refer to the designated section in the Districts' Industrial Waste Ordinance.

IF YOUR COMPANY HAS ANY OR WILL HAVE ANY OF THE FOLLOWING PRETREATMENT SYSTEMS for wastewater prior to disposal to the sewer, please check the appropriate box.

1. Interceptor, clarifier, sump or trap ☒
2. Screen or filter ☐
3. Centrifuge ☐
4. Cyclone ☐
5. Grit removal ☐
6. Grease or oil removal ☐
7. Solvent separation ☐
8. Acid or base neutralization ☐
9. Chemical coagulation or precipitation ☒
10. Cyanide destruction ☐
11. Chromium reduction ☐
12. Spill protection ☐
13. Rainwater diversion or storage system ☒ refers to a RW trench, not connected to sewer
14. Grinder over 2 horsepower ☐
15. Air flotation ☐
16. Other ☐
17. Other ☐

I hereby affirm that all information furnished is true and correct to the best of my knowledge.

Date Feb. 25, 1982

Signature for Applicant (COMPANY ADMINISTRATIVE OFFICIAL) [signature] STEVEN L. PEBLER (NAME) PLANT MANAGER (POSITION)

DICE 02650

cw/4/1/49

Ord. 614 N.S.
INSPECTION REPORT

Department of the County Engineer
Industrial Waste Division

Name of Firm Burdette Oxygen Co. of Cleveland Permit No. 6

Address 2032 Dice Road, Los Nietos

Inspected by J.K. Stewart Date 11/16/48

Report Mr. Green Plant Operator

Water is added to calcium carbide forming C_2H_2 gas in an automatic generator. The gas passes through a water scrubber and then into a tank filled with dry caustic to remove the water. It then passes through compound called Maxite where posphine, hydrogen sulphide and ammonia are removed and then through another caustic drier. The waste sludge from the generator goes to a open pit on the east side of the property. The only waste besides the sludge is the small amount of water removed from the driers. This is dumped on the ground - pH-13.0

Effluent sampled (Yes) (No). No Sample marked ,

delivered to laboratory on for determination of :

Laboratory report received

3/48

DICE 02651

Valasky

INSPECTOR'S REPORT

TO: TT Ottoson

FROM: Bob Moore

FILE: Calox Oxygen Co. I-225- File
8838 S. Dice Rd. S.F.S.

DATE: 2-20-63

REPORT: A field trip with Mr. L. Quintana and B. Valasky to the above company to screen plans for connection to the public sewer.

All phases of this operation was discussed and a proposal will be submitted by this company with in the next 2 weeks.

The limes from this operation will not be considered in the sewer connection. Supernate water from the lime storage pits will be recirculated in the process for a product. Lime slurry will be sold to some other source.

This connection to the sewer by this company, will put more of a backwash on the dead end of this sewer.

Plans to be submitted soon.

J.T.O.

761550L-15 - CE 658 - Gdb 2-59

DICE 02652

I-225

T. T. Otteson

Bob Moore

File

Cal. Oxygen Co. I-225

8838 S. Dice Rd., Santa Fe Springs

1-2-63

An inspection trip with Mr. Jim Stewart, Head Inspector, was made on 12-11-62 to look over the connection to the sewer of the lime scrubber.

A Sa-156 received the discharge (which had overflowed many times and corroded the electrical equipment adjacent to the trap). Then went to the sewer. There was no direct connection to the 6" sewer. Effluent went into an earth pit; then drained into the sewer. Mr. Delaney was contacted and instructed to connect this facility at once. Inspection on 12-12-62 showed the connection made.

During this inspection storage tanks were emptied and samples taken. PH 12.4. Effluent was discharged slowly via a valve while we were present. Trap did not overflow.

Mr. Delaney, Plant Supervisor, has been instructed to use this means of eliminating the limes only as an emergency. Southern Cal. Chem. will pick-up limes at other times. So. Cal. Cham. has a tank available on the premises to store lime wastes. This tank is hooked directly to their facilities across the street.

Progress reports to follow.

When all construction has been completed a detailed survey will be made.

220.

I-225-1H

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road / Whittier, California
Mailing Address: / P. O. Box 4998, Whittier, California 90607
Telephone: (213) 699-7411 / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

March 4, 1982

File:18-00.05-00/82-4784

Mr. Rezai Khojasteh
Dept. of County Engineer-Facilities
Sanitation Division-3rd Floor
550 South Vermont Avenue
Los Angeles, CA 90020

Dear Mr. Khojasteh:

Industrial Wastewater Discharge Submittal No. QR-944

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Enclosed is a permit application for the subject company which was submitted directly to the Sanitation Districts without being reviewed by your agency. Please review the enclosed material and process it as necessary. It should be returned to the Sanitation Districts for review after approval by your agency.

Very truly yours,

Walter E. Garrison

Leon S. Directo
Leon S. Directo
Supervising Civil Engineer

LSD:wh

RECEIVED
SANITATION

DICE 02654

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

RECEIVED
JAN 18 1982

PLAN CHECK REVIEW

225 IH

Date 1-18-82

FIRM NAME LIQUID AIR PROD.

FIRM ADDRESS 8832 S. DICE Rd.

Unint. Co. Territory
City of SANTA FE SPRINGS

Plan Check By R. Hughes

Co. Engr. in City Engr.
Yes ___ No X

		OK
1.	Required No. of Plans	✓
2.	I. W. Plans and Details	✓
3.	I. W. Statement	✓
4.	County Permit Application	N/A
5.	San. Dists. Permit Application	N/A
6.	Critical Parameter	N/A
7.	Permit Fee Received	N/A
8.	Permit Form	N/A
9.	I-File Request Form (Indicate I-No. & Region, if assigned) I-225/H ~~I-255 IH~~	
10.	I. W. Facilities Adequate	✓
11.	Allocable Sewer Capacity (Indicate allowed discharge in gpm) EXISTING PERMIT ALLOWS	36
12.	Method of Disposal (Indicate if local, or trunk sewer, etc.) LOCAL	
13.	Plans Approved for Transmittal to San. Dists.	

Copy

DICE 02655

LIQUID AIR CORPORATION
2121 N. California Blvd.
Walnut Creek, CA 94596
Telephone: (415) 977-6500

CERTIFIED MAIL RETURN RECEIPT REQUESTED NO. P 848 898 161

December 13, 1988

U.S. EPA Region IX
RCRA Program Section T-2-1
Toxics and Waste Management Division
215 Fremont Street
San Francisco, CA 94105

Subject: Notification of Hazardous Waste Activity
EPA Form 8700-12

Re: Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Sir/Ma'am:

Enclosed herewith is subject form completed for our generator facility referenced above.

Please contact the undersigned at 415-977-6657 should there be any questions.

Sincerely,

David N. Simon
Manager Regulatory Affairs

DNS/je

Encl.

cc: Tom Barber - Liquid Air Santa Fe Springs

dns/1/321-88

Mailing Address: P.O. Box 8038, Walnut Creek, CA 94596 • Telex: ITT 470020 • Telecopier: (415) 977-6840

Please print or type with ELITE type (... characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 9-3...
GSA No. 0246-EP...

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions f... Filing Notification* before completir... this form. The information requeste... here is required by law *(Sectic... 3010 of the Resource Conservatic... and Recovery Act).*

For Official Use Only

Comments

C
C

Installation's EPA ID Number															Approved	Date Received (yr. mo. day)
C F												T/A	C 1			

I. Name of Installation

LIQUID AIR CORPORATION

II. Installation Mailing Address

Street or P.O. Box

C 3 8832 DICE ROAD

City or Town	State	ZIP Code
C 4 SANTA FE SPRINGS	CA	9067...

III. Location of Installation

Street or Route Number

C 5 8832 DICE ROAD

City or Town	State	ZIP Code
C 6 SANTA FE SPRINGS	CA	9067...

IV. Installation Contact

Name and Title *(last, first, and job title)*	Phone Number *(area code and number)*
C 2 BARBER TOM PLANTMGR	213 945 138...

V. Ownership

2121 N CALIFORNIA A. Name of Installation's Legal Owner WALNUT CREEK, CA 94596 B. Type of Ownership *(enter cod...*

C 8 LIQUID AIR CORPORATION; P

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- [X] 1a. Generator
- [X] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [ ] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [ ] 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner

B. Used Oil Fuel Activities NOT APPLICABLE

- [ ] 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer *(or On site Burner)* Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

[ ] A. Utility Boiler [ ] B. Industrial Boiler [ ] C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es)*

[ ] A. Air [ ] B. Rail [ ] C. Highway [ ] D. Water [ ] E. Other *(specify)*

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

[ ] A. First Notification [X] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number: CAC000041700

EPA Form 8700-12 (Rev. 11-85) Previous edition is obsolete.

Continue on rev...

1

DICE 02657

ID — For Official Use Only														
C													T/A	C
W														1

X. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	**8**	**9**	**10**	**11**	**12**

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	**38**	**39**	**40**	**41**	**42**
43	**44**	**45**	**46**	**47**	**48**

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [X] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [X] 4. Toxic *(D000)*

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
David Simon DAVID N SIMON	DAVID SIMON MGR REGULATORY AFFAIRS	12/13/87

EPA Form 8700-12 (Rev. 11-85) Reverse

415-477-6657

ALSO THESE CALIFORNIA (RCRA EXEMPT) WASTES GENERATED:

1) OIL
2) OIL/WATER LIQUID
3) OIL/WATER SOLIDIFIED

DEPT. OF COUNTY ENGINEER—F[illegible]ITIES
SANITATION DIVISION

PLAN CHECK REVIEW

Date 11/21/80

FIRM NAME M.G. BURDETT GAS PRODUCTS CO.

FIRM ADDRESS 8832 S. DICE RD.

Uninc. Co. Territory ___
City of ~~SANTA FE~~ SANTA FE SPRINGS

Plan Check By Jenny Wong

Co. Engr. is City Engr.
Yes ___ No ✓

		OK
1.	Required No. of Plans	N/A
2.	I. W. Plans and Details	N/A
3.	I. W. Statement	N/A
4.	County Permit Application	N/A
5.	San. Dists. Permit Application	OK
6.	Critical Parameter	N/A
7.	Permit Fee Received	OK
8.	Permit Form	N/A
9.	I-File Request Form (Indicate I-No. & Region, if assigned)	OK
10.	I. W. Facilities Adequate	OK
11.	Allocable Sewer Capacity (Indicate allowed discharge in gpm)	7.5 GPM
12.	Method of Disposal (Indicate if local, or trunk sewer, etc.)	1
13.	Plans Approved for Transmittal to San. Dists.	___

Reviewed By: _____ Trap Card _____

FOLLOW UP INSTRUCTIONS:

NOTE: ORIGINAL COMPANY LIQUID AIR, INC. SOLD PART OF THE OPERATION TO M.G. BURDETT GAS PRODUCTS CO. PLEASE PROCESS NEW PERMIT APPLICATION AND ASSIGN A NEW I# TO M.G. BURDETT.

DICE 02659

APPLICATION NO. Y100666

EXISTING [redacted] [redacted] CONSTRUCTION PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE
SANITATION DISTRICTS OF LOS ANGELES COUNTY
1955 Workman Mill Road / Whittier, Ca.
Mailing Address: / P.O. Box 4998, Whittier, California 90607
[redacted] Chief Engineer and General Manager
Walter E. Garrison

PERMIT NO.

01 ~~Los Angeles~~ Santa Fe Springs, Calif.* 11 / 3 / 80 (MO. DAY YR.)

APPLICATION IS HEREBY MADE BY MG Burdett Gas Products (PRINT) (FIRM NAME) A

03 (Mailing Address) P.O. Box 54083 Terminal Annex (STREET) Los Angeles (CITY) Calif (STATE) 90054 (ZIP) E

07 Same (OWNER, TENANT, ETC.) G of the property located at:

09 (Street) 8832 Dice Rd (PRINT) 111 (City) Santa Fe Springs (Zip) 90670 (ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE)

Assessors Map Book No. 8168 Page No.* 013 Parcel No.* 7, 8 (LEGAL ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE) K

Local Sewer on Dice Rd (PRINT) (LOCATION OF POINT OF WASTEWATER DISCHARGE TO SEWERAGE SYSTEM)

for a Permit for Industrial Wastewater Discharge to the sewerage system.

13 Type of Industry* Liquid Oxygen Plant (GENERAL DESCRIPTION) M. 17 2813 (FEDERAL SIC NOS.) O

19 Number of Employees (Full Time)* 2 (Part Time)* S

21 Raw Materials Used* None (GENERAL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED) U

Products Produced Liquid Oxygen, Nitrogen, & Argon (GENERAL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED)

Wastewater Producing Operations Blow Down & Bleed off water (FULL DESCRIPTION – ADD ADDITIONAL SHEETS AS NEEDED)

31 Time of Discharge – * 12 AM/~~PM~~ to 12 ~~AM~~/PM, (WORKING DAY – CROSS OUT AM OR PM) Days per Week* (M) (T) (W) (Th) (F) (Sa) (Su) (CIRCLE DAYS)

* Wastewater Flow Rate* 252 AA (Gallons Per Day)

Constituents of Wastewater Discharge Compressor blow down, Cooling Tower water (GENERAL DESCRIPTION – ATTACH CHEMICAL ANALYSES RESULTS TO THIS APPLICATION)

Person in company responsible for industrial wastewater discharge:

41 William R Jones (PRINT) (NAME) Plant Manager (POSITION) 569-4373 (TELEPHONE NUMBER) BB

I affirm that all information furnished is true and correct and that the applicant will comply with the conditions stated on the back of this permit form.

Date 11/3, 1980

Signature for Applicant William R Jones (COMPANY ADMINISTRATIVE OFFICIAL) (NAME) Plant Manager (POSITION)

Approved by City or County Official

Date

For Dept. of County Engineers ..... ☐

City of ☐

Name

Position

Approved by Sanitation Districts of Los Angeles County

Date

[redacted]

Walter E. Garrison, Chief Engineer and General Manager

by

Position

Note: A permit fee may be required by the local City or County Agency.
This form when properly signed shall be a valid permit unless suspended or revoked.

RETURN THIS COPY TO APPLICANT WHEN APPROVED

DICE 02660

PERMIT NO.

ADDITIONAL INFORMATION QUESTIONNAIRE FOR PERMIT APPLICANTS

SANITATION DISTRICTS OF LOS ANGELES COUNTY
1955 Workman Mill Rd., P.O. Box 4998, Whittier, CA. 90607
John D. Parkhurst, Chief Engineer and General Manager

Los Angeles, Calif. 11 / 3 / 80 (MO. DAY YR.)

Name of Company M.G. Burdett Gas Products S.I.C. No. _____

Mailing Address (PRINT) PO Box 54083 Term Annex Los Angeles Calif 90054 (STREET) (CITY) (STATE) (ZIP)

Address of Wastewater Discharge (PRINT) 8832 Dice Rd Santa Fe Springs Calif 90670 (STREET) (CITY) (STATE) (ZIP)

Legal Address 8 1 6 8 (MAP BOOK NO.) 0 1 3 (PAGE NO.) 1 8 (PARCEL NO.) Permit Application No. 410066

IF YOUR COMPANY DISCHARGES OR WILL DISCHARGE TO THE SEWER any of the wastewater constituents listed below, please check the appropriate box:

1. Flammable wastes (406A) ☐
2. Toxic or poisonous wastes (406B) ☐
3. Acidic materials (pH less than 6.0) (406C) ☐
4. Materials that could obstruct the sewer (406D) ☐
5. Rainwater (406E) ☐
6. Dilution water (406F) ☐
7. Petroleum based soluble cutting oils (406G) ☐
8. Any quantities of petroleum based oils (406H) ☐
9. Cyanide wastes (406J) ☐
10. Total dissolved solids above 5000 mg/1 (406K) ☐
11. Highly odorous wastes (406M) ☐
12. Dissolved sulfides over 0.1 mg/1 (406N) ☐
13. Basic materials (pH greater than 10.5) (4060) ☐
14. Toxic gases (406P) ☐
15. Temperature over 120° F. (406Q) ☐
16. Highly colored wastes (406V) ☐
17. Wastes larger than ⅜" in diameter (406W) ☐
18. Any arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, tin, zinc, or other toxic materials (406X) ☐
19. Blow down or bleed water from cooling towers, boilers or evaporative coolers (406Y) ☐
20. Single pass cooling water (406Z) ☐
21. Radioactive materials (406AA) ☐
22. Recognizable portions of the human anatomy (406BB) ☐

NOTE: Numbers in parentheses refer to the designated section in the Districts' Industrial Waste Ordinance.

IF YOUR COMPANY HAS ANY OR WILL HAVE ANY OF THE FOLLOWING PRETREATMENT SYSTEMS for wastewater prior to disposal to the sewer, please check the appropriate box.

1. Interceptor, clarifier, sump or trap ☒
2. Screen or filter ☐
3. Centrifuge ☐
4. Cyclone ☐
5. Grit removal ☐
6. Grease or oil removal ☐
7. Solvent separation ☐
8. Acid or base neutralization ☐
9. Chemical coagulation or precipitation ☐
10. Cyanide destruction ☐
11. Chromium reduction ☐
12. Spill protection ☐
13. Rainwater diversion or storage system ☐
14. Grinder over 2 horsepower ☐
15. Air flotation ☐
16. Other _____ ☐
17. Other _____ ☐

I hereby affirm that all information furnished is true and correct to the best of my knowledge.

Date 11/3, 19 80

Signature for Applicant (COMPANY ADMINISTRATIVE OFFICIAL) William R Jones (NAME) Plant Manager (POSITION)

DICE 02661

REQUEST FOR: I-NUMBER [X] DATA CHANGE [ ]

PLEASE DO NOT TERM. I# 225-1H
SEE BELOW

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. I-225-1H

Name LIQUID AIR INC.

Address 8832 S. DICE RD. Zip Code _____

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name M.G. BURDETT GAS PRODUCTS CO.

Address 8832 S. DICE RD. Zip Code 90670

Region-City 1H Status CWRR Permit No. PIP

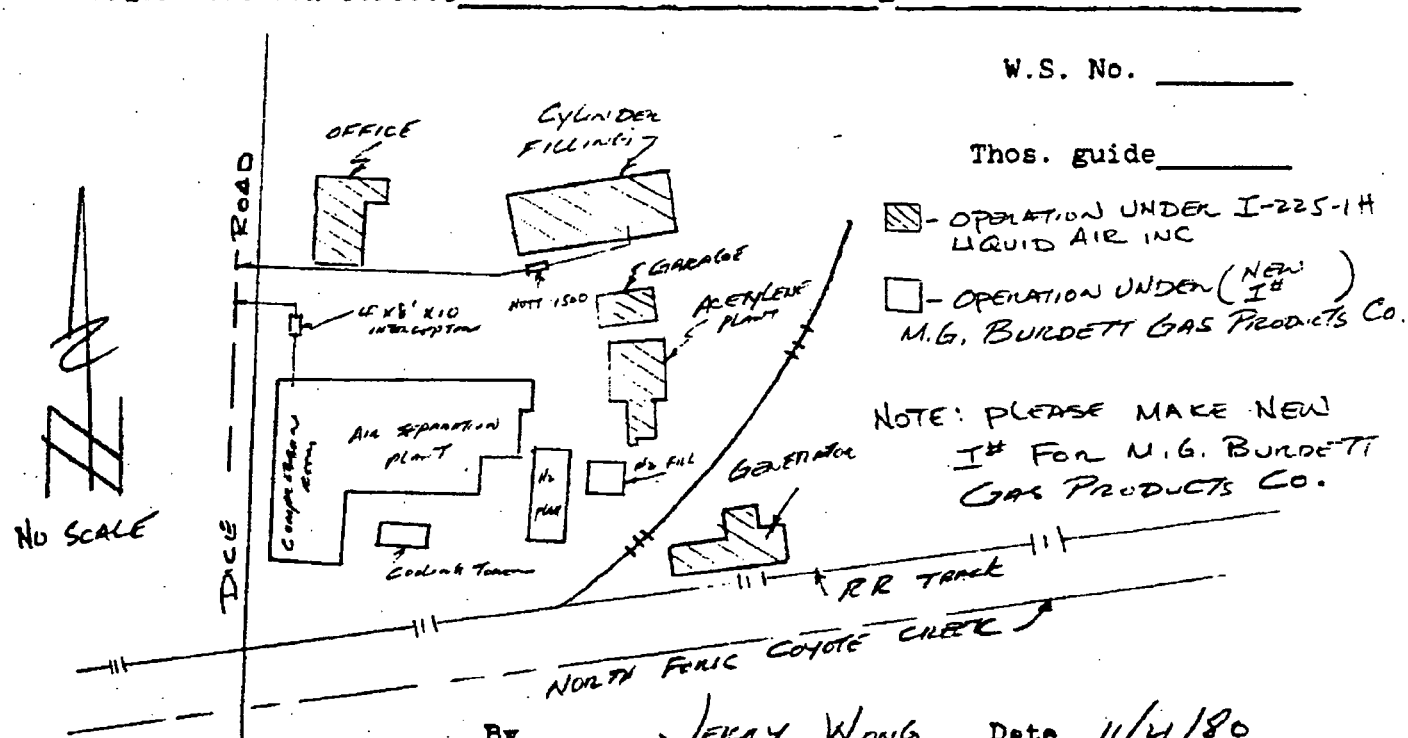
Classif. 127 ~~SMD~~ 324010 Disp. Code 1

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets _____ & _____

W.S. No. _____

Thos. guide _____



By JERRY WONG Date 11/21/80

PROCESSING

File folder & indexing by _____

Plotted by _____

DICE 02662

I-1025-1 H

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

PLAN CHECK REVIEW

Date 1-18-82

FIRM NAME M.G. BURDETT

FIRM ADDRESS 8832 S. DICE Rd.

Unint. Co. Territory
City of SANTA FE SPRINGS

Plan Check By R. Higbee - PS 3/16/82

Co. Engr. in City Engr.
Yes ____ No X

		OK
1.	Required No. of Plans	N/A
2.	I. W. Plans and Details	N/A
3.	I. W. Statement	N/A
4.	County Permit Application	N/A
5.	San. Dists. Permit Application	✓
6.	Critical Parameter ADD. INFO. QUEST.	✓
7.	Permit Fee Received XEROX COPY ATTACHED	✓
8.	Permit Form	N/A
9.	I-File Request Form (Indicate I-No. & Region, if assigned). SEE ATTACHED I REQUEST	
10.	I. W. Facilities Adequate	N/A
11.	Allocable Sewer Capacity (Indicate allowed discharge in gpm). NO DISCHARGE	
12.	Method of Disposal (Indicate if local, or trunk sewer, etc.) " "	
13.	Plans Approved for Transmittal to San. Dists.	

Reviewed By: _____ Trap Card Req'd

FOLLOW UP INSTRUCTIONS:

THIS OPERATION WAS PERMITTED UNDER LIQUID AIR PROD. I-225-1H. M.G. BURDETT HAS OWNERSHIP NOW BUT THE PLANT IS NOT IN OPERATION.

ISSUE NEW I II Pr C.S. 1/18/82

Plotted on W.S. 33

Th 61:81

SMD C-160

DICE 02663

REQUEST FOR: I-NUMBER [X] DATA CHANGE [ ]

DO NOT TERMINATE I# 225-1H
SEE BELOW

When requesting a new I-No., fill in B and C only.

When requesting a Data Change, fill in A completely and fill in only items to be changed in B.

A: (Fill in data as it appears on I.B.M. list now.)

I-No. I-225-1H

Name LIQUID AIR INC.

Address 8832 S. DICE Rd. Zip Code

B: (Fill in new data as you want it to appear on the next I.B.M. list.)

Name M.G. BURDETT GAS PROD.

Address 8832 S. DICE Rd. Zip Code 90670

Region-City 1H Status + Permit No.

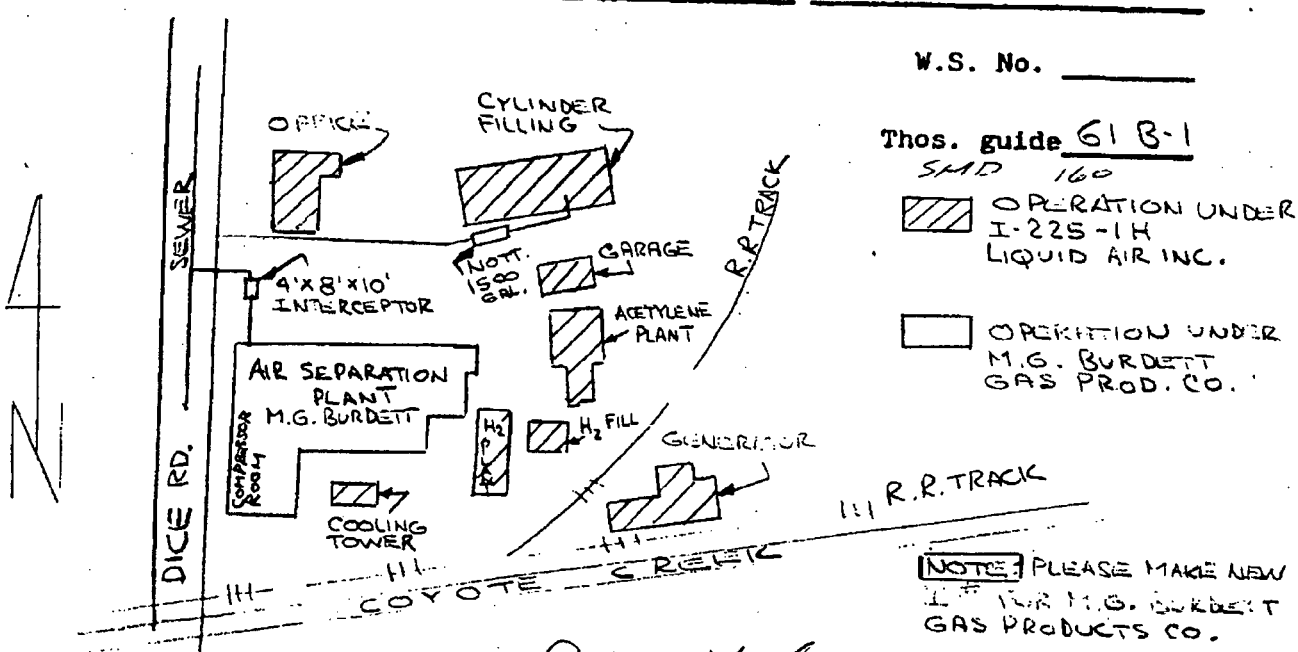
Classif. 127 SMD 0860.15 Disp. Code 1

C: Show plot or sketch showing dimensions of the property and ties to cross streets.

Located between streets _____ & _____

W.S. No. _____

Thos. guide 61 B-1
SMD 160



By Roger Hryben Date 1-18-82

PROCESSING

le folder & indexing by _____

otted by _____

DICE 02664

I-0225

LIQUID AIR INC.
Divisions:
American Cryogenics
Industrial Air Products Co.

One Embarcadero Center
San Francisco, California 94111
Phone (415) 433-6210, Telex W.U. 340421

April 21, 1971

Department of County Engineers
Project Planning & Pollution Control Division
7639 South Painter avenue
Whittier, California 90602

Attn: R. W. Hartley

Dear Sir:

Included is the information that you requested concerning our air separation plant in Santa Fe Springs.

We have been delayed in relaying this information to you; therefore, we would like to summarize our disposal problem at this plant.

Our concern in a plant of this type is the disposal of approximately 18,000 gallons per month of a spent caustic solution that contains 2 to 3 percent sodium hydroxide and 10-11 percent of sodium carbonates. Spent caustic solution is obtained from a scrubbing system for plant air and is placed in a holding tank before disposal. Rate of disposal, time period of disposal, and dilution with water can easily be controlled with this system.

At the present time we have this solution removed by Southern California Chemical Company, who use it in their own process. We would like permission to dispose of this spent caustic solution into the sewer. Diluted with other water wastes the concentration of sodium hydroxide would be approximately 0.14% or lower and the pH, would probably be in the 8-9 pH range.

Our plant manager in Santa Fe Springs, Mr. Ray Wilson, telephone no. 685-4960 will be available to answer any questions you may have.

Thank you for your assistance in this problem.

Yours very truly,

LIQUID AIR INC.

A. W. Sass
Manager, Instrument Engineering

AWS;mdc
Enclosure:

cc: R. Wilson
J. Smith

Industrial Waste Statement
Company - American Cryogenics
Location - Dice Road, Santa Fe Springs

1. Type of Business: Manufacture of industrial gases in air separation plants.

2. Type of Facilities Producing Liquid Waste:
Caustic scrubbing towers for plant air.

3. Chemicals involved: Sodium hydroxide, sodium carbonate, sodium bicarbonate in water solution.

4. Solid Wastes: None

5. Liquid Wastes:

a. Types
Water solution containing sodium hydroxide, sodium carbonate, and sodium bicarbonate.

b. Rate of Flow
0.5 gallons/minute

c. Peak Rate of Flow
1.0 gallons/minute

d. Water Consumed
18,000 gallons/month

e. Floor Wash Through interceptor
once/month

f. Gallons used in Floor Wash
5 gallons

g. Rinse Tanks
none

h. Caustic Process Tanks
gallonage 1. 1-1000 gallon tank
2. 1-800 gallon tank

Position in Process: Scrubbing tanks on air inlet.

Frequency of Dumping: Dumped into 3000 gallon holding tank where rate of disposal can be controlled.

Disposal of Spent Solutions:
Private Contractor Haulage

Concentrations: Final - 2-3% Sodium Hydroxide
10-11% Sodium Carbonates
Water

i. Steam Cleaner
Portable unit used once/week for two hours in cleaning truck motors - rate of flow - 500#/hour steam

j. Car or Truck Wash
none

k. Cooling Towers

Capacity -	43,000 gallons
Bleed-Off -	10,000 gallons/day
Chemicals -	low chromate zinc - 15 ppm
	H_2SO_4 -- PH of 6.5 - 7.0
	Biocide - Sodium
	Penta-Clorophenate less 1ppm

l. Storage Tanks
none

m. One Pass Cooling Water
none

n. Dynamometer
none

o. Rain Water
220,000 sq. ft. of drainage not to sewer

p. Temperature of Liquid Wastes
ambient

q. Degreasers
none

r. Welders
none

s. Plating
none

t. Air Scrubbers
described in "H" overleaf

u. Pickling
none

v. Quench Tanks
none

6. Spent Caustic:

From air scrubbers to be disposed in sewer with no neutralization.

a. PH of spent caustic - approx. 12.
PH of total sewer product approx. 8-9.

7. Solvents:

None

I-225

CITY OF SANTA FE SPRINGS
Industrial Waste Disposal Permit Application

Firm Name: AMERICAN CRYOGENICS, INC. California Oxygen Division Date 3-31-64

Address (mailing): 8832 Dice Road Phone No. OX 8-8226

Address (of installation): 8832 Dice Road, Santa Fe Springs

Type of Industry: Industrial & medical gas manufacturer

Character of operation producing waste: Compression of air and various process gases for liquefaction and distillation. Waste is produced by compressor lubrication and cooling water treatment.

Types of chemicals, solvents, cleaning compound, oils or other substances contained in liquid waste discharge: Mineral oil, cooling tower blow-down water treated with acid and PH control chemicals. Infrequent slugs of sodium carbonate solution.

Approximate amount of waste liquids (_____) gals. per (_____).

Disposal of liquid wastes:

Quantity and character of solid wastes: NA

Disposal of solid wastes: Sewer

Additional Information:

KRIKORAIN

Applicant's Signature
Vice President & General Manager

This application should be forwarded to the Santa Fe Springs City Hall, Post Office Box 2337, Santa Fe Springs, California. Industrial Waste Application Fee of $15.00 should be made payable to the City of Santa Fe Springs.

ASSIGNMENT NO. 5488

MR# 5273 3/9/64

DICE 02669

File

FIRE DEPARTMENT OF THE CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION • (213) 944-9713
11300 GREENSTONE AVE. • SANTA FE SPRINGS 90670-4619

ALL AMERICA CITY
AWARD WINNER

November 20, 1991

Mr. Bryan Leger
Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Dear Mr. Leger:

Thank you for the time and courtesy extended our staff during the recent inspection of your facility. There are a number of areas which require your attention.

Clearance should be provided to access the on-site fire hydrant. It is particularly important that the outlet sides of the hydrant be clear at all times. The area must be striped or marked in such a way as to remind your employees not to store at this location.

You indicated that your sprinkler system had received a 5 year certification as required by State law. The riser, however, did not bear a certification seal. Upon return to the fire station, a review of our files indicated we have not received a copy of this certification which is normally furnished to the local fire department by the contractor. Please have your contractor mail a copy of this certification.

You currently hold a permit for a spray booth. Because the Uniform Fire Code regulates only the application of flammable and/or combustible finishes, it may be in order to cancel this permit. Please furnish us with a Material Safety Data Sheet covering the water soluble paint you now use so that we can review the characteristics of this product.

A drum of acetone is gravity fed by flexible hose as standby to reprime the pump pulling from the underground acetone tank in those instances when pump prime is lost. Acetone is a Class I flammable liquid and as such may not be dispensed by gravity. A listed pump or device drawing through an opening in the top of the container must be used for this purpose. The container shall be provided with adequate grounding to prevent the buildup of static electricity. A distance of 15' must be provided from any building openings. The openings formed by coring for piping into the building must be filled with a fire resistant caulking. A flexible material will allow for seismic movement. The use of a drum in standby usage

should be considered a temporary measure. It is important to determine what is causing the pump to lose prime and to rectify the situation.

We will be communicating with Ron Hughes in the Public Works Department regarding the precise location of the public hydrant.

Your Hazardous Material Disclosure requires updating to show storage locations for all disclosed hazardous materials. As a new Disclosure/Business Plan will be mailed out in late December, please update your facility plot plan by 2/1/92. Also, disclosure of the drums next to your spray booth and all hazardous waste drums should be included in your update.

Provide proper material labelling for all drums. Labels should include the material name, chemical composition, and any physical or health hazards.

Provide NFPA 704 placards on all visible sides of all stationary tanks, including the lime slurry tanks. In addition to the NFPA 704 placard, the tanks should also be labelled with their contents.

Submit an updated time schedule for Fire Department consideration for the construction and completion of the lime slurry treatment system and ponds. Include in the updated time schedule reference to soils/structural engineering studies which indicate that the extent of your ponds do not create an unsafe condition for your railcars as well as railcars for Angeles Chemical.

Be advised that City, County, State, and Federal law does not allow for the discharge of contaminated water to the storm drain system. For this reason you must cease discharge from your spray booth water curtain system to the storm drain.

During our inspections, several locations were used to store hazardous waste drums. To better manage these drums, consideration should be given to establishing a centralized hazardous waste storage area.

Should you have questions or if we may be of assistance to you, please contact either Inspector Dave Klunk (regarding hazardous materials/waste) or Inspector Diana Jimenez (general fire prevention questions).

Yours very truly,

ROBERT C. WILSON, FIRE CHIEF

S.D. Boettcher

Stanley D. Boettcher
Fire Marshal

SDB:DJ:cd

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

DEPARTMENT OF HEALTH SERVICES
107 SOUTH BROADWAY, ROOM 7011
LOS ANGELES, CA 90012
(213) 620-2380

May 15, 1987

RECEIVED

JUL 10 1989

TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

Dear Permittee:

On July 8, 1987, new state and federal land disposal restrictions are currently scheduled to go into effect. Therefore, activities authorized by this extremely hazardous waste permit may be prohibited after July 8, 1987. The new requirements will supersede any conflicting extremely hazardous waste permits. (See Appendix A to this permit).

Both the existing state requirements and the proposed federal restrictions should be reviewed by waste generators to determine whether their waste treatment or disposal operations (including any extremely hazardous waste permits) will be impacted. State requirements are contained in Health and Safety Code Sections 25122.7 and 25208 et seq., and Article 15 of Chapter 30, Division 4 of Title 22 of the California Administrative Code. The proposed federal regulations can be found in the Federal Register, 40 CFR Part 260 et. al (Environmental Protection Agency), dated November 7, 1986, and December 11, 1986.

Sincerely,

John Hinton, P.E., Chief
Facility Permitting Unit
Southern California Section
Toxic Substances Control Division

JUL 11 1989

RETURN ORIGINAL AND ONE COPY

RECEIVED

JUL 10 1989

TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

For Office Use Only:
Permit # 4-890710001
Date Handled 7-11-89
Date Sent 7-10-89
Date Expired 7-10-90
Ronald

WASTE PRODUCER, PLEASE CHECK APPLICABLE PERMIT REQUEST:

✓ New Permit

___ Renewal Permit (Current Permit No. _____ Date _____)

___ Amendment and (Current Permit No. _____ Date _____)

___ Verbal Permit (No. _____ Date _____)
(If given verbal emergency permit by telephone)

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

Section Offices:

714/744 P Street
Sacramento, CA 95814
(916) 322-2337

2151 Berkeley Way
Berkeley, CA 94704
(415) 540-2043

5545 East Shields Avenue
Fresno, CA 93727
(209) 291-6676

107 South Broadway
Rm. 7011
Los Angeles, CA 90012
(213) 620-2380

APPLICATION FOR
CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT*

Please type or print clearly. Provide all information requested, since omissions will result in delay or denial of permit. Allow 15 days process time from day of receipt.

WASTE PRODUCER:

Name of Firm Liquid Air Corporation
Street and No. (Or P.O. Box) 8833 Dice Rd.
City Santa Fe Springs State CA Zip Code 90760
Telephone No. (213) 945 1383 County Los Angeles
Pick Up Address (If Different) Same

EPA I.D.# CAL000021160
Applicant TOM BARBER Title PLANT MANAGER

PROPOSED HAULER:

Ensco Environmental Systems
Address American Rd
El Dorado Ark

EPA I.D.# ARD069748192 Hauler Reg. No. 089

PROPOSED DISPOSAL FOR OTHER FACILITY:

(1) Cyanokem Inc
Address 13381 Schafer Highway
Detroit Mich. 48227

(2) Thermalkem
2324 Hermosdale Rd
Rock Hill South Carolina
29730

(1) EPA I.D.# MID098011992 (2) SCD044442333

PROPOSED METHOD OF DISPOSAL:

Burial__ Ponding __ Storage __ Other (Specify) _____
Treatment (Specify type) Neutralization / Incineration
Recycle (Specify method of reuse) _____

*Required for handling or disposal of extremely hazardous wastes (Section 66570, Title 22, CAC).

DICE 02673

Hazardous Waste Management Branch

APPLICATION FOR CALIFORNIA EXTREMELY HAZARDOUS WASTE PERMIT

Company Liquid Air City _____ Date _____

ADDITIONAL WASTES

WASTE 2

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	Quantity On One Time Basis: Number:	Units:
Mercury Compound	10	2		X		
Ferric Chloride	30	10	X			

On Year's Permit: Per Disposal (est'd) 4000 # Per Year (est'd) 29,000 #

Description of Packaging, Containerization and Transport: ☒ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☒ Other Poly Drums

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☒ Incineration ☐ Other (Specify): _____
☒ Treatment (Specify): Neutralization & Metals Precipitation
☐ Recycling (Specify method of reuse): _____

WASTE 3

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	Quantity On One Time Basis: Number:	Units:

On Year's Permit: Per Disposal (est'd) _____ Per Year (est'd) _____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): _____
☐ Treatment (Specify): _____
☐ Recycling (Specify method of reuse): _____

WASTE 4

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)

Waste Component(s)	Upper	Lower	%	ppm	Quantity On One Time Basis: Number:	Units:

On Year's Permit: Per Disposal (est'd) _____ Per Year (est'd) _____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): _____
☐ Treatment (Specify): _____
☐ Recycling (Specify method of reuse): _____

RECEIVED

JUL 1 0 1989

TOXIC SUBSTANCES CONTROL DIVISION
REGION 4
LONG BEACH

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

APPLICATION FOR
CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT

DESCRIPTION OF WASTE (Including Composition with Upper and Lower Concentration of Hazardous Components)	CONCENTRATION Upper	Lower	Units, % or ppm	QUANTITY (For year's permit give estimated quantity per disposal and per year)

(Attach page(s) for additional wastes)

DESCRIPTION OF PACKAGING: (Packaging, Containerization)

Drums ____ Cartons ____ Bottles ____ Tank Truck ____

Other _____ Specify method of packaging small containers

Packaging, containerization, and transport of the material shall be in accordance with Title 49, Code of Federal Regulations for hazardous materials, and with regulations of the California Highway Patrol, Title 13, California Administrative Code, for intrastate transport of hazardous materials and, for PCB-containing wastes, in accordance with U.S.E.P.A. regulations set forth in Title 40 CFR Part 761.

PERMIT TO BE USED FOR: (Length of Time)

Single Disposal ____

One Year Maximum for Multiple Disposals X

PERMIT RENEWALS: (Application for renewal of a one-year blanket permit, using this form, must be received at least 15 days prior to expiration date to keep permit in effect).

Signature of Applicant _____

Company and City LIQUID AIR CORPORATION - SANTA FE SPRINGS

Date 7-6-89

1/22/81

This permit is subject to the condition(s) stated on Appendix A which is attached.

DICE 02675

APPENDIX A

CONDITIONS TO EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT

1. This permit does NOT authorize the disposal of any extremely hazardous waste in a manner which is not in compliance with the limitations, restrictions or prohibitions on the disposal of any hazardous or extremely hazardous waste imposed by state or federal law. Such restrictions include, but are not limited to, those imposed now or in the future by Chapter 6.5 of Division 20 of the California Health and Safety Code (HWCA) (Sections 25100 et seq.)as amended, Article 15 of Chapter 30 of Division 4 of Title 22 of the California Administrative Code,as amended and/or the Resource, Conservation and Recovery Act, (RCRA) (42 USC 6901 et seq.) as amended and regulations adopted pursuant to the HWCA or RCRA.

FIRE DEPARTMENT OF THE CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION • (213) 944-9713
11300 GREENSTONE AVE. • SANTA FE SPRINGS 90670-4619

TELECOPY MESSAGE

To: Jim Nishida
LA CO Hlth Dept. HAZ MAT CONTROL
RM 607
213 ~~[illegible]~~ 7469299
FAX NUMBER

No. of Pages: 4
(Including this cover page)

From: Dave Klunk

Date: 1/11/91

COMMENTS:

Results for Liquid Air
8832 Dice

pls confirm results & applic.
to Title 22 Haz. Waste
Thanks, Dave

COPY TO FOLLOW IN THE MAIL: ( ) Yes (✓) No

IF YOU HAVE TROUBLE RECEIVING THIS INFORMATION, OR YOU DID NOT RECEIVE THE SPECIFIED NUMBER OF PAGES SHOWN ABOVE, PLEASE CALL (213) 944-9713

FAX NO. (213) 941-1817

WCAS
WEST COAST ANALYTICAL SERVICE, INC.
ANALYTICAL CHEMISTS

December 31, 1990

JOHN L. HUNTER & ASSOCIATES
13310 Firestone Blvd., Suite A-2
Santa Fe Springs, CA 90670

Attn: John L. Hunter

JOB NO. 17412

LABORATORY REPORT

Samples Received: Three (3) soil samples and one (1) water
Date Received: 12-18-90
Date Released for Analysis: 12-19-90
Purchase Order No: Project Name: Santa Fe Springs

The samples were analyzed as follows:

Samples Analyzed	Analysis	Results
Two (2) soils and one (1) water	Alkalinity by SM 403	Tables 1 & 2
Two (2) soils and one (1) water	pH by EPA 150.1/9040	Table 3
One (1) soil and one (1) water	Volatile Organics by EPA 8260/624	Data Sheets
One (1) soil and one (1) water	Surrogate Percent Recoveries for EPA 8260/624	Data Sheets
Three (3) soils and one (1) water	CAM (17) Metals by ICPMS1	Data Sheets

B. Michael Hovanec
Senior Staff Chemist

D.J. Northington, Ph.D.
President

9840 Alburtis Avenue • Santa Fe Springs, California 90670 • 213/948-2225 • FAX 213/948-5890

WEST COAST ANALYTICAL SERVICE, INC.

JOHN L. HUNTER & ASSOCIATES
Mr. John L. Hunter

Job # 17412
December 31, 1990

LABORATORY REPORT

TABLE 1

Parts Per Million (mg/Kg)

Sample ID	Total Alkalinity by SM 403
1A	510000
2A	320000
Detection Limit	1000

Date Analyzed: 12-27-90

TABLE 2

Parts Per Million (mg/L)

Sample ID	Total Alkalinity by SM 403
W-A	300000
Detection Limit	10000

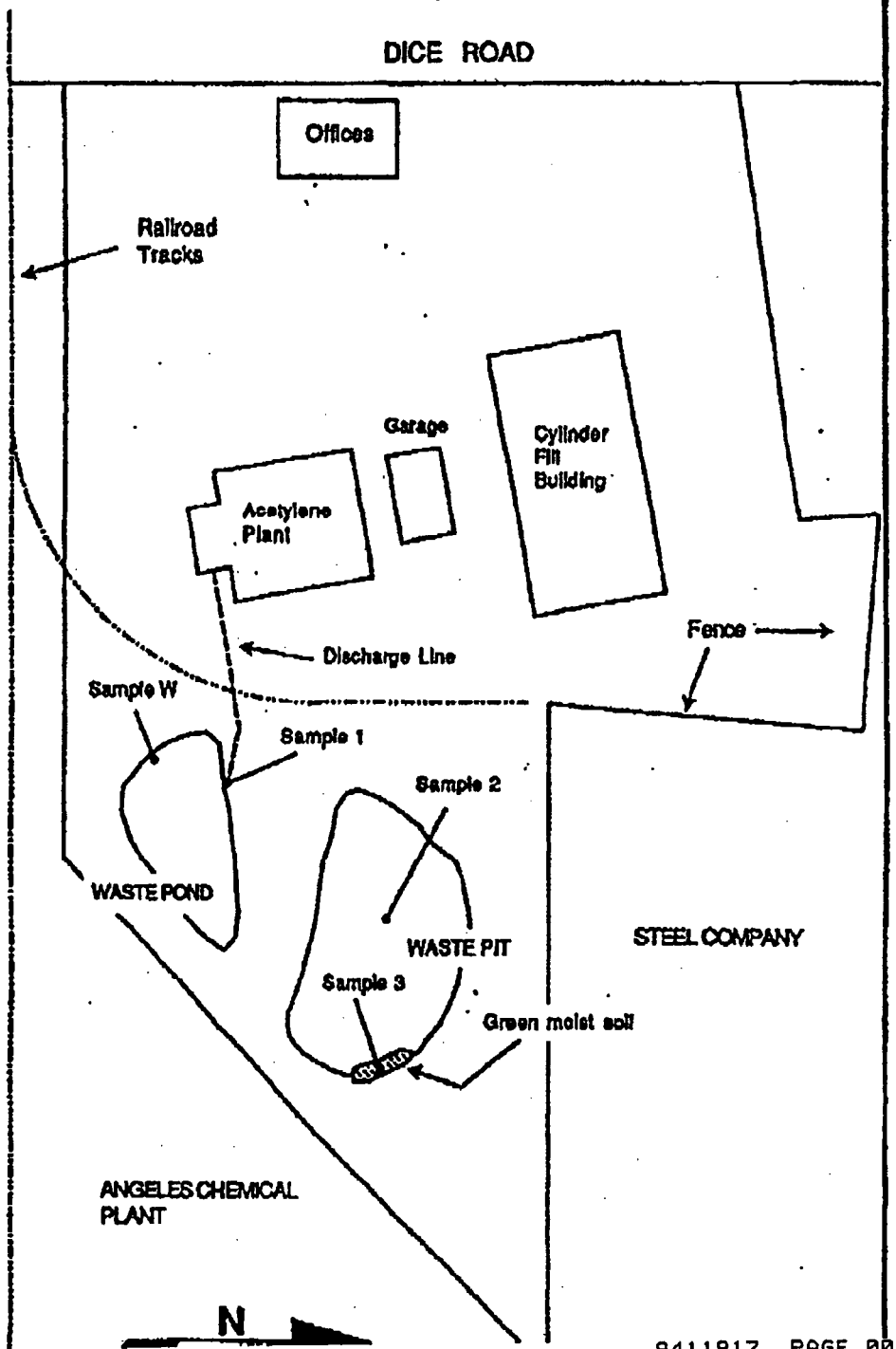
Date Analyzed: 12-27-90

TABLE 3

Sample ID	pH (Units) by EPA 150.1/9040
1A	12.8
2A	12.9
W-A	12.7

Date Analyzed: 12-20-90

INVESTIGATION WORKSHEET	FIRM NAME Liquid Air	PAGE2 OF 2
	ADDRESS 8832 Dice, Santa Fe Springs, CA	12/17/90



SANTA FE SPRINGS
FIRE DEPARTMENT
11300 Greenstone Ave
Santa Fe Springs, CA 90670
(213) 944-9713

LETTER OF TRANSMITTAL

DATE 1/28/91 JOB NO.

ATTENTION El Linda

RE LIQUID AIR

TO: L.A. Co. Health

213 746-9299

We are sending you by: ☐ U.S. Mail ☐ Via Carrier ☒ FAX

No. of Pages: 10 Including this Sheet

☐ Site Assessment
☐ Extra Report
☐ Samples
☐ Preminary Draft
☐ Plans
☐ Copy of Letter
☐ Final Report
☐ Copy of Permit
☐ Other

COPIES	DATE	NO.	DESCRIPTION
1			LAB RESULTS

TRANSMITTED

☐ For review ☒ As requested ☐ Returned for correction

☐ Other

REMARKS

Copies to:

By: JOHN HUNTER

WEST COAST ANALYTICAL SERVICE, INC.

JOHN L. HUNTER & ASSOCIATES
Mr. John L. Hunter

Job # 17412
December 31, 1990

LABORATORY REPORT

TABLE 1

Parts Per Million (mg/Kg)

Sample ID	Total Alkalinity by SM 403
1A	510000
2A	320000
Detection Limit	1000

Date Analyzed: 12-27-90

TABLE 2

Parts Per Million (mg/L)

Sample ID	Total Alkalinity by SM 403
W-A	300000
Detection Limit	10000

Date Analyzed: 12-27-90

TABLE 3

Sample ID	pH (Units) by EPA 150.1/9040
1A	12.8
2A	12.9
W-A	12.7

Date Analyzed: 12-20-90

DICE 02682

Client: John L. Hunter & Assoc. Sample: 1A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
241

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.08	0.07	50	500
Barium	20.4	0.2	1000	10000
Beryllium	0.62	0.07	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.2	0.2	5600/50	2500/500
Cobalt	0.98	0.02	800	8000
Copper	9	0.2	250	2500
Lead	2.69	0.1	50	1000
Mercury	ND<0.06	0.06	2	20
Molybdenum	0.14	0.03	3500	3500
Nickel	ND<8	8	200	2000
Selenium	0.4	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	7.92	0.05	240	2400
Zinc	6.3	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 2A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
251

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.2	0.07	50	500
Barium	29.7	0.2	1000	10000
Beryllium	0.49	0.06	7.5	75
Cadmium	0.04	0.02	10	100
Chromium (III/VI)	6.4	0.2	5600/50	2500/500
Cobalt	2.38	0.02	800	8000
Copper	5.4	0.2	250	2500
Lead	3.36	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.41	0.03	3500	3500
Nickel	37	10	200	2000
Selenium	0.7	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	43.4	0.05	240	2400
Zinc	7.4	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc. Sample: 3A
Job Number: 17412
Date Analyzed: 12-26-90 File: 7438
261

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry
Total Metals Concentration---Parts Per Million

**** Exceeds TTLC limits * May exceed STLC limits

	Sample mg/Kg	Detection Limit	10X STLC Limits mg/Kg	TTLC Limits mg/Kg
Antimony	ND<0.1	0.1	150	500
Arsenic	0.74	0.06	50	500
Barium	25.8	0.2	1000	10000
Beryllium	0.16	0.06	7.5	75
Cadmium	ND<0.02	0.02	10	100
Chromium (III/VI)	3.6	0.2	5600/50	2500/500
Cobalt	1.11	0.02	800	8000
Copper	5.7	0.2	250	2500
Lead	0.57	0.09	50	1000
Mercury	ND<0.05	0.05	2	20
Molybdenum	0.1	0.03	3500	3500
Nickel	6	5	200	2000
Selenium	ND<0.3	0.3	10	100
Silver	ND<0.02	0.02	50	500
Thallium	ND<0.02	0.02	70	700
Vanadium	5.85	0.05	240	2400
Zinc	5.5	0.6	2500	5000

(1) ND-Not Detected. The Limit of Detection is reported above.
(2) Chromium reported above as total chromium in sample.
(3) 10X STLC Limits used as comparison takes into account dilution of the sample by 1/10 during leachate preparation.

WCAS

Client: John L. Hunter & Assoc.
Job Number: 17412
Date Analyzed: 12-26-90

C.A.M. Metals
Quantitative Analysis Report
Inductively Coupled Plasma-Mass Spectrometry

Parts Per Million (mg/L)

	W-A	Blank DL
Beryllium	ND<0.003	0.003
Vanadium	ND<0.003	0.003
Chromium	ND<0.007	0.007
Cobalt	0.002	0.001
Nickel	ND<0.04	0.04
Copper	0.007	0.003
Zinc	0.66	0.02
Arsenic	0.001	0.001
Selenium	0.04	0.04
Molybdenum	ND<0.002	0.002
Silver	ND<0.001	0.001
Cadmium	ND<0.001	0.001
Antimony	ND<0.003	0.003
Barium	5.49	0.003
Mercury	ND<0.002	0.002
Thallium	ND<0.001	0.001
Lead	ND<0.003	0.003

ND-Not Detected. The detection limit (DL) is stated above.
Because of sample interferences, Sample DLs may differ from Blank DLs.

WCAS

CLIENT: JOHN L. HUNTER
WCAS JOB #: 17412

SAMPLE: 3A

DATE RECEIVED: 12/18/90
DATE EXTRACTED: 12/27/90
DATE ANALYZED: 12/27/90

RUN NUMBER: 17412V6
SAMPLE AMOUNT: 1.0G
MATRIX: SOLID

VOLATILE ORGANICS (EPA 624/8260)

UNITS: UG/KG (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	180.	30.
71-43-2	BENZENE	ND	5.
75-27-2	BROMODICHLOROMETHANE	ND	5.
75-25-2	BROMOFORM	ND	5.
74-83-9	BROMOMETHANE	ND	30.
78-93-3	2-BUTANONE (MEK)	ND	30.
75-15-0	CARBON DISULFIDE	6.	5.
56-23-5	CARBON TETRACHLORIDE	ND	5.
108-90-7	CHLOROBENZENE	ND	5.
75-00-3	CHLOROETHANE	ND	30.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	50.
67-66-3	CHLOROFORM	ND	5.
74-87-3	CHLOROMETHANE	ND	30.
108-41-8	CHLOROTOLUENE	ND	5.
124-48-1	DIBROMOCHLOROMETHANE	ND	5.
95-50-1	1,2-DICHLOROBENZENE	ND	5.
541-73-1	1,3-DICHLOROBENZENE	ND	5.
106-46-7	1,4-DICHLOROBENZENE	ND	5.
75-34-3	1,1-DICHLOROETHANE	ND	5.
107-06-2	1,2-DICHLOROETHANE	ND	5.
75-35-4	1,1-DICHLOROETHYLENE	ND	5.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	5.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	5.
78-87-5	1,2-DICHLOROPROPANE	ND	5.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.
100-41-4	ETHYLBENZENE	ND	5.
106-93-4	ETHYLENE DIBROMIDE	ND	5.
76-13-1	FREON-TF	ND	5.
119-78-6	2-HEXANONE	ND	30.
75-09-2	METHYLENE CHLORIDE	ND	30.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	30.
100-42-5	STYRENE	ND	5.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.
127-18-4	TETRACHLOROETHYLENE	ND	5.
109-99-9	TETRAHYDROFURAN	ND	30.
108-88-3	TOLUENE	ND	5.
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.
79-01-6	TRICHLOROETHYLENE	ND	5.
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.
108-05-4	VINYL ACETATE	ND	30.
75-01-4	VINYL CHLORIDE	ND	30.
95-47-6	TOTAL XYLENES	ND	5.

WCAS

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT: JOHN L. HUNTER SAMPLE: 3A
WCAS JOB #: 17412

UNITS: UG/KG (PPB)

	COMPOUND NAME	FRACTION	APPROXIMATE CONCENTRATION
1	UNIDENTIFIED COMPOUND	VOA	40.

CLIENT: JOHN L. HUNTER
WCAS JOB #: 17412

SAMPLE: W-A

DATE RECEIVED: 12/18/90
DATE EXTRACTED: 12/27/90
DATE ANALYZED: 12/27/90

RUN NUMBER: 17412V7
SAMPLE AMOUNT: 5ML
MATRIX: WATER

VOLATILE ORGANICS (EPA 624/8260)

UNITS: UG/L (PPB)

CAS #	COMPOUND	CONCENTRATION	DET LIMIT
67-64-1	ACETONE	220.	5.
71-43-2	BENZENE	ND	1.
75-27-2	BROMODICHLOROMETHANE	ND	1.
75-25-2	BROMOFORM	ND	1.
74-83-9	BROMOMETHANE	ND	5.
78-93-3	2-BUTANONE (MEK)	15.	5.
75-15-0	CARBON DISULFIDE	ND	1.
56-23-5	CARBON TETRACHLORIDE	ND	1.
108-90-7	CHLOROBENZENE	ND	1.
75-00-3	CHLOROETHANE	ND	5.
110-75-8	2-CHLOROETHYLVINYL ETHER	ND	10.
67-66-3	CHLOROFORM	ND	1.
74-87-3	CHLOROMETHANE	ND	5.
108-41-8	CHLOROTOLUENE	ND	1.
124-48-1	DIBROMOCHLOROMETHANE	ND	1.
95-50-1	1,2-DICHLOROBENZENE	ND	1.
541-73-1	1,3-DICHLOROBENZENE	ND	1.
106-46-7	1,4-DICHLOROBENZENE	ND	1.
75-34-3	1,1-DICHLOROETHANE	ND	1.
107-06-2	1,2-DICHLOROETHANE	ND	1.
75-35-4	1,1-DICHLOROETHYLENE	ND	1.
156-59-4	CIS-1,2-DICHLOROETHYLENE	ND	1.
156-60-5	TRANS-1,2-DICHLOROETHYLENE	ND	1.
78-87-5	1,2-DICHLOROPROPANE	ND	1.
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	1.
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	1.
100-41-4	ETHYLBENZENE	ND	1.
106-93-4	ETHYLENE DIBROMIDE	ND	1.
76-13-1	FREON-TF	ND	1.
119-78-6	2-HEXANONE	ND	5.
75-09-2	METHYLENE CHLORIDE	ND	7.
108-10-1	4-METHYL-2-PENTANONE (MIBK)	ND	5.
100-42-5	STYRENE	ND	1.
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	1.
127-18-4	TETRACHLOROETHYLENE	ND	1.
109-99-9	TETRAHYDROFURAN	ND	5.
108-88-3	TOLUENE	ND	1.
71-55-6	1,1,1-TRICHLOROETHANE	2.	1.
79-00-5	1,1,2-TRICHLOROETHANE	ND	1.
79-01-6	TRICHLOROETHYLENE	ND	1.
75-69-4	TRICHLOROFLUOROMETHANE	ND	1.
108-05-4	VINYL ACETATE	ND	5.
75-01-4	VINYL CHLORIDE	ND	5.
95-47-6	TOTAL XYLENES	ND	1.

WCAS

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT: JOHN L. HUNTER SAMPLE: W-A
WCAS JOB #: 17412

UNITS: UG/L (PPB)

	COMPOUND NAME	FRACTION	APPROXIMATE CONCENTRATION
1	UNIDENTIFIED COMPOUND	VOA	20.

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930241	01/23/93	01/23/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
212	O'Donnell 034	Omoruyi 060	10:20	01/23/93	22:20

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
09:45	01/23/93	:	F64	CAPT DE SILVA	310-944-9713

Site Name	Location
FLOOD CONTROL CHANNEL	08832 DICE RD #POINA SFS 90670

Complaint
White chemical dumped into flood control channel.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
G00 W99		N	Z99	OMORUYI

Release Factors

- Intentional Act
- Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)

- Establish Safe Area
- ✓ HazCat
- Evacuation
- Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)

- Contact Agencies
- ✓ Investigate
- Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS

- Board Memo Issued
- Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name	Authorized Representative Name
LIQUID AIR	MILTON BIRD

RP Address	RP Phone #
08832 DICE RD #POINA SFS 90670	310-945-1383

Authority for Clean Up

- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company	Cost	Site Entry Level
Name: ANCON ENV	$ 19,000	○ A ○ B ● C ○ D ○ No Entry
		Property Use: 4840
Time On Scene: 09:45	Time Complete: 03:00	Surrounding Area: Commercial Property 4850
Date On Scene: 01/23/93	Date Left Scene: 01/28/93	Program Referral: ☐ Site Mit ☐ Enforcement ☐ Inspect

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information
Source of discharge to flood control channel was traced by walking along the channel from Santa Fe Springs Road to about 200ft from Dice Street. ph field test of materials on the flood control channel and those found around the tanks on the South/East corner of 8832 Dice Street (Liquid Air) were the same.

Agen: A-EQMD;B-Business;C-Caltrans;D-Citizen;E-EPA;F-Fire;f-f HazMat;G-Fish&Game;H-CHP;;I-Ind Waste;L-Coast Guard;M-St Maint;N-Oth Co;O-Loc City;P-Police;p-P HazMat;R-Oth Fed;S-Sheriff;T-DoT;W-Flood;X-Other;1-SDMI;2-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Toxi;F-Flam;I-Infect;K-Irrit;N-Non;O-Oxid;P-Poi;R-Reac;T-Toxic;U-Unknown;W-Water Reactive
Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-Ma;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;N-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car)
Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Surr Area: 2400-Residence;2400-School;2477-Medical Facil;4442-U.S. Forest;4444-Vacant;4446-Office Bldg;4450-Commercial Prop;4455-City Street;4456-Highway;4457-County Facil;4458-Incorp City;4459-Other Govt Agency

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930241	01/23/93	01/23/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
212	O'Donnell 034	Omoruyi 060	10:20	01/23/93	22:20

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
09:45	01/23/93	:	F64	CAPT DE SILVA	310-944-9713

Site Name	Location
FLOOD CONTROL CHANNEL	08832 DICE RD #POINA SFS 90670

Complaint
White chemical dumped into flood control channel.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
G00 W99		N	Z99	OMORUYI

(1) Chemical or Trade Name	Hazard	State Stored	State Released	Quantity Stored
CALCIUM HYDROXIDE AND OXIDE	B	o solid o liquid o gas	• solid o liquid o gas	0.000 o lbs o gal o cu ft

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
Unknown o lbs o gal o cu ft	■ pavement ■ water o soil o air ■ other	6	N		0.000 o lbs o gal o cu ft

Container	# of Containers	Additional Information
o fixed o mobile	0	

Release Factors
- Intentional Act
- Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)
- Establish Safe Area
- ✓ HazCat
- Evacuation
- Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)
- Contact Agencies
- ✓ Investigate
- Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS
- Board Memo Issued
- Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name	Authorized Representative Name
LIQUID AIR	MILTON BIRD

RP Address	RP Phone #
08832 DICE RD #POINA SFS 90670	310-945-1383

Authority for Clean Up
- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company	Cost	Site Entry Level
	$	o A o B • C o D o No Entry

Name	Property Use
	4840

Time On Scene	Time Complete	Surrounding Area
		Commercial Property 4850

Date On Scene	Date Left Scene	Program Referral
/ /	/ /	□ Site Mit □ Enforcement □ Inspect

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information

Agen: A-SQMD;B-Business;C-CalTrans;D-Citizen;E-EPA;F-Fire;F-F HazMat;G-FishAGame;H-CHP;I-Ind Waste;L-Coast Guard;M-St Maint;N-Oth Co;O-Inc City;P-Police;Q-P HazMat;R-Oth Fed;S-Sheriff;T-Dol;U-Flood;X-Other;Y-SDHS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;K-Irrit;N-Non;O-Gold;P-Pois;R-Reac;T-Toxic;U-Unknown;W-Water Reactive Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-Am;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;E-Gas Cylinder;N-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car) Material: G-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Surr Area: 2400-Residence;2461-School;2477-Medical Facil;4842-U.S. Forest;4844-Vacant;4848-Office Bldg;4850-Commercial Prop;4855-City Street;4856-Highway;4857-County Facil;4858-Incorp City;4859-Other Govt Agency

DICE 02692

LIQUID AIR
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670

Sampler: Nosa Omoruyi

FIELD SAMPLE #N12393-1

DATE SAMPLED:	January 23, 1993
TIME:	1420 Hours
MATERIAL:	Off-white-mudlike material with uniform smoothness
LOCATION:	The material was scooped from the floor about five feet from the most southerly tank.

FIELD SAMPLE #N12393-2

DATE SAMPLED:	January 23, 1993
TIME:	1445 Hours
MATERIAL:	Off-white-mudlike material with uniform smoothness.
LOCATION:	The material was scooped from the flood control bed located approximately 100 feet south of the tank farm at Liquid Air, 8832 Dice Road, Santa Fe Springs. It was sampled at approximately two feet east of the discharge point of a pipe carrying the material from Liquid Air into the flood control channel.

FIELD SAMPLE #N12493-3

DATE SAMPLED:	January 24, 1993
TIME:	0840 Hours
MATERIAL:	Frost beige light-bodied material with uniform smoothness.
LOCATION:	Taken inside the bed of the Flood Control Channel at approximately 1/4 mile east of Santa Fe Spring Road, Santa Fe Springs.

N
L1
Tank farm
PIT
1
DICE
Santa Fe Spring Rd.
2
Flood control channel.
3
1/4 mile
Drawing not to Scale

DICE 02694

No. 010849

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS CONTROL PROGRAM

Owner _____

Business LIQUID AIR

Address 8832 DICE RD

City, Zip Code SANTA FE SPRINGS CA 90670

Date 01-23-93

Refer Reply To:
2615 South Grand Avenue, Room 807
Los Angeles, CA 90007
(213) 744-3223
(213) 748-1605 (FAX)

NOTICE OF VIOLATION AND ORDER TO COMPLY

The following conditions or practices observed at your facility are violations of the California Code of Regulations (CCR), Title 26, Division 22 or the California Health and Safety Code, Division 20, Chapter 6.5, (H&S) which relate to the storage, management, transportation, and disposal of hazardous waste. YOU ARE DIRECTED TO CORRECT THE VIOLATIONS WITHIN THE TIMES SPECIFIED BELOW.

CORRECTION DATE

DISPOSAL:

01-23-93 ☒ 1. Discontinue the disposal of hazardous waste to an unauthorized point(s) (H&S 25189.5) Caustic Material to Flood Control Channel up to a point where pH is Neutral.

01-23-93 ☒ 2. Legally dispose of all hazardous waste and contaminated materials (H&S 25189.5) _____ (☐ stored at/ ☒ discharged to) Flood Control Channel (H&S 25189.5) & (H&S 25186.2)

MANAGEMENT:

_____ ☐ 3. Submit to this office a copy of your facility's hazardous materials contingency plan and employee training plan. (CCR 67105, 67120-67126, 67140-67145)

TRANSPORTATION:

_____ ☐ 4. Discontinue the transport of hazardous waste until the following have been met:

_____ ☐ A. Obtain an EPA Identification Number from the State Department of Health Services at (916) 324-1781 (CCR 66472)

_____ ☐ B. Complete a uniform Hazardous Waste Manifest or obtain a receipt when applicable under State Department of Health Services variance procedures.

_____ ☐ C. Transport all hazardous waste by a State registered hauler. (H&S 25163)

_____ ☐ 5. Submit to this office a copy of the completed hazardous waste manifest(s) used to dispose of _____ (CCR) 66328).

_____ ☐ 6. Keep copies at your facility of all completed manifests, receipts or both for a minimum of 3 years and make documents available for agency review. (CCR-66492)

STORAGE:

_____ ☐ 7. Discontinue the storage of hazardous waste for longer than 90 days without a permit from the State Department of Health Services (CCR 66508)

_____ ☐ 8. Store all hazardous waste in compatible containers which are closed and in good condition. (CCR 66241-67243)

_____ ☐ 9. Properly label all hazardous waste containers with the following: the words, "HAZARDOUS WASTE"; name and address of generator; hazardous properties; a composition and physical state of the waste; and the accumulation date. (CCR 66693-66746) _____

OTHER:

_____ ☐ 10. Provide this office with a site assessment and mitigation plan for the contamination at your facility (H&S 25245-25249) _____

_____ ☐ 11. Provide this office with a copy of a waste determination conducted by a state certified laboratory or waste documentation in accordance to the regulations. (CCR 66693-66746) _____

_____ ☐ 12. _____

Failure to fully comply with this Notice and Order may result in further legal action.

Owner or Authorized Representative

Hazardous Materials Specialist

DICE 02695

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
930201	01/27/93	01/27/93

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
111	O'Donnell 034	Lohnes 041	18:30	01/28/93	03:00

Time Notified	Date Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
18:00	01/27/93	:	P99	C SHERMAN	818-458-3533

Site Name: LIQUID AIR CORP

Location: 08832 DICE RD # A SFS 90670

Complaint
A caustic material is flowing into the storm drain.

Incident Grade: Moderate

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
W99 Z99 F00		N	G00	LT JOE PECSI

(1) Chemical or Trade Name	Hazard	State Stored	State Released	Quantity Stored
LIME BYPRODUCTS	C	o solid ● liquid o gas	o solid ● liquid o gas	0.000 o lbs o gal o cu ft

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
300.000 o lbs ● gal o cu ft	□ soil □ pavement ■ water □ air ■ other	6			0.000 o lbs o gal o cu ft

Container	# of Containers	Additional Information
o fixed o mobile	0	

Release Factors

- Intentional Act
- ✓ Suspicious Act
- Abandoned
- Mechanical Failure
- Collision/Overturn
- Other
- Fire
- Explosion
- Spill
- Unknown
- No Release

HMCP Actions (✓)

- Establish Safe Area
- ✓ HazCat
- Evacuation
- ✓ Contact PRP
- Contact OES
- Contact EPA
- Other

Other Agency Actions (×)

- Contact Agencies
- ✓ Investigate
- × Call Clean Up Co.
- Remove Hazard
- Provide Public Info
- Contact DoHS

- Board Memo Issued
- ✓ Take Samples
- No Action Taken
- ✓ NOV Issued
- Hearing Issued
- PHL Issued
- Road Closure

Responsible Party Business Name: LIQUID AIR

Authorized Representative Name: MILTON BIRD

RP Address: 08832 DICE RD # A SFS 90670

RP Phone #: 310-945-1383

Authority for Clean Up

- Private Land Owner
- ✓ Business
- City
- County
- State
- Federal
- Other

Clean Up Company

Name: ANCON ENV

Cost: $ 8,000

Site Entry Level: o A o B o C ● D o No Entry

Property Use: Commercial Property 4850

Surrounding Area: Commercial Property 4850

Program Referral: □ Site Mit ■ Enforcement □ Inspect

Time On Scene	Time Complete	Date On Scene	Date Left Scene
21:00	03:00	01/27/93	01/28/93

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information
Run-off liquid containing an undetermined amount of a "Calcium Hydroxide" waste product was discovered in a storm ditch. The material had come from a storm drain within the liquid air plant. The Enforcement Unit will conduct an investigation.

Agen: A-SQMD;B-Business;C-Caltrans;D-Citizen;E-EPA;F-Fire;F-F HazMat;G-FishGame;H-CHP;I-Ind Waste;1-Coast Guard;N-St Maint;P-Oth Co;O-Inc City;P-Police;P-P HazMat;R-Oth Fed;S-Sheriff;T-CoT;W-Flood;X-Other;Y-SDMS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;M-Irrit;M-Mon;O-Oxid;P-Pois;R-Reac;T-Toxic;U-Unknown;W-Water Reactive
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;N-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car)
Pros Use/Surr Area: 2406-Residence;2469-School;2477-Medical Facil;4442-U.S. Forest;4444-Vacant;4445-Office Bldg;4450-Commercial Prop;4455-City Street;4456-Highway;4457-County Facil;4458-Incorp City;4459-Other Govt Agency
Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-No;8-Unknown
Material: G-Glass;M Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood

Instructions for Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004 or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date. (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

Solvent Constituent	Treatment Standard (mg/l) Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	.44	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate box below to indicate that your waste is not restricted from land disposal.

- ☐ 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA. *This variance expires 11/8/90.*
- ☐ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.
- ☐ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above. *This variance expires 8/8/90*

CHEMICAL ANALYSIS

Department of the County Engineer

Analysis requested by [redacted]

Sample of [redacted] File No. [redacted]

Source of suspected contaminants, i.e., character of industrial process, etc.

Sample marked 16349 [redacted] Collected by [redacted] Date [redacted]

Time Quantity [redacted] pH

Check Analyses Wanted	PPM	Milli Equiv	Check Analyses Wanted	PPM	Milli Equiv
Calcium (Ca^{++})			Carbonate ($CO_3^{=}$)		
Magnesium (Mg^{++})			Bicarbonate (HCO_3^{-})		
Sodium & Potassium (Na^{+} & K^{+})			Chloride (Cl^{-})	95	
Iron (Fe^{+++})			Sulfate ($SO_4^{=}$)	190	
Aluminum (Al^{+++})			**Hardness**	390	
Sum of milli-equivalents			Sum of milli-equivalents		
Hardness as $CaCO_3$			Dissolved Solids		
Volatile Solids			Suspended Solids		
pH 8.5			Total Solids		

Remarks or Special Analyses

Laboratory No. [redacted]

Analysis by [redacted]

Date [redacted]

DICE 02698

May 21, 1959

Burdette Oxygen
8838 Dice Road
Santa Fe Springs, California

Gentlemen:

An inspection was conducted on your property May 13, 1959. It was noted that you keep and maintain a clean business establishment. However, the following three items will have to be corrected in order to provide reasonable fire safety in this establishment:

1. Provide spray painting booths for your two spray painting operations.

2. Provide paint lockers for all paints.

3. Have all fire extinguishers checked. This should be done annually and a card kept on each extinguisher.

A reinspection will be conducted on June 22, 1959. At this time I feel certain that these conditions will be corrected.

Very truly yours,

B. J. Thompson
Fire Prevention Officer
Santa Fe Springs Fire Department

BJT:so

File 614

Ord. 614 N.S.
INSPECTION REPORT

Department of the County Engineer
Industrial Waste Division

Name of Firm Burdett Oxygen Co Permit No. _____

Address 2032 Dice Rd - Los Nietos

Inspected by Overstreet Date 3/2/51

Report This plant is operating in accordance with all provisions of its #614 permit.
Excavating larger pit North of existing pit for detention of lime (waste from plant)

Effluent sampled (Yes) (~~No~~) _____ Sample marked _____,

delivered to laboratory on _____ for determination of

_____

Laboratory report received _____

6/3/49

DICE 02700

INSPECTOR'S REPORT

TO: T. T. OTTESON

FROM: M. CRON

Cm 1-19-52 FILE: BURDETT OXYGEN CO.
2032 DICE RD. - LOS NIETOS

DATE: SEPT. 19, 1951

Report: LARGER PIT TO THE NORTH OF OLD LIME DETENTION PIT IS NOW IN USE.

ALL PLANT OPERATIONS ARE AS PREVIOUSLY REPORTED & ARE IN ACCORDANCE WITH THEIR ORD 614 PERMIT #6.

(If additional space is required used reverse side)

3-50

DICE 02701

INSPECTOR'S REPORT

TO: Jim Stewart

FROM: Bob Moore

FILE: Cal-Oxygen Co. I-225-10
8832 Dice Rd. S.E.S.

DATE: 12-5-63

REPORT: During a routine inspection of this plant with Mr. J. Stewart, we found that the fence surrounding the waste ponds has been recently torn down by the R.R. Co. removing a spur.

Mr. Jack Smith & Mr. Delaney plant operators contacted & instructed to fence area at once.

Area is approx. 150' X 90' X 25' deep. Pit is filled with lime sludge from the plant process.

Sheriff's office in Norwalk called, and they sent a car over to investigate. Sheriff told me that they enforced this ord. in S.E.S. Sheriff will report back to me on their progress.

Mr Smith told me that he would put up a fence at once. Type of fence to be posts with barbed wire at 6" intervals.

Progress reports to follow.

761550L-15 - CE 658 - Gdb 11-59

DICE 02702

INSPECTOR'S REPORT

TO: J. H. STEWART

FROM: M. CRON

FILE: BURDETT OXYGEN CO
2032 DICE RD - LOS NIETOS

DATE: 6-14-50

Report: THIS PLANT IS OPERATING IN ACCORDANCE WITH ALL PROVISIONS OF ITS #614 PERMIT.

APPROX 3 TO 5 GALLON OF CAUSTIC SLUDGE ARE BEING DISPOSED OF DAILY & USED TO KILL WEEDS NEAR THE ROADS

THE SLUDGE & COOLING WATER GO TO THE OPEN LIME PIT TO THE EAST OF THE PLANT

DICE 02703

I-...

INSPECTOR'S REPORT

TO: Jim Stewart

FROM: Bob Moore

FILE: Cal-Oxygen Co. I-225-10
8832 Dice Rd. S.F.S.

DATE: 12-5-63

REPORT: During a routine inspection of this plant with Mr. J. Stewart, we found that the fence surrounding the waste ponds has been recently torn down by the R.R. Co. removing a spur.

Mr. Jack Smith & Mr. Delaney plant operators contacted & instructed to fence area at once.

Area is approx. 150' X 90' X 25' deep. Pit is filled with lime sludge from the plant process.

Sheriffs office in Norwalk called, and they sent a car over to investigate. Sheriff told me that they enforced this ord. in S.F.S. Sheriff will report back to me on their progress.

Mr. Smith told me that he would put up a fence at once. Type of fence to be posts with barbed wire at 6" intervals.

Progress reports to follow.

JH

761550L-15 - CE 658 - Gdb 11-59

DICE 02704

File I-225

The Burdett Oxygen Company

OF CALIFORNIA

Manufacturers

OXYGEN · HYDROGEN · ARGON · PYROLENE · ACETYLENE AND EQUIPMENT

Division of
THE BURDETT OXYGEN COMPANY
of Cleveland Inc.

2014 SELGRAVE AVENUE
HUNTINGTON PARK, CALIFORNIA
LUDLOW 3-6091

November 6, 1957

Mr. John A. Lambie,
354 S. Spring Street,
Los Angeles 12, California.

Attention: Arthur Pickett
Room 619

Gentlemen:

As per our recent conversation with Mr. Stewart, the floor drains shown on the print are to be used for clear overflow water from our hydrostatic testing unit. The water will drain into a recirculating system located at the present existing building.

Very truly yours,

BURDETT OXYGEN CO. OF CALIF.

Patrick Zeedik

Patrick Zeedik
Asst. General Manager.

PZ:db

INSPECTOR'S REPORT

TO: DON COATES I-[illegible]-10

FROM: E.L. THOMPSON

FILE: BURDETT OXYGEN CO.
8838 DICE RD (LOS NIETOS)

DATE: 10-27-55

REPORT: AN ORD. 6130 INSPECTION WAS MADE TODAY OF THE ABOVE CO.

IT WAS FOUND THAT.

UNDER THE ORD. I SAW NO VIOLATIONS.

AT CONDITIONS OF I.W. PERMIT # 6 ITEMS #1 TO # 3 IS BEING COMPLIED WITH.

COOLING WATER IS NOW BEING RECIRCULATED, AND IS ELIMINATED FROM QUARRY.

MR. I.C. GREEN FOREMAN EX 4-1129 WAS CONTACTED.

76 1 550L15 S&E 658 1 2/52

DICE 02706

I-225

MEMORANDUM

To: The File (I-0225-1H)
From: T. T. Otteson
Date: September 7, 1966
Subject: SEWER RESTRICTION

On August 26, following notification by the Sanitation Division that their maintenance crew was cleaning the sewer in Dice Road, Carroll Smith and myself went to the location to observe proceedings.

The section of the sewer being cleaned was immediately downstream from American Cryogenics and Southern California Chemical Company. A considerable volume of soft brown scale was being broken loose from the sewer by use of a rubber ball and flushed with water to the manhole downstream for removal. A sample of the scale was obtained and has been sent to our lab for analysis.

An inspection was made of both plants. At American Cryogenics, Mr. Wilson accompanied us. The plant has two basic wastes: Slab washdown as required -- this waste is of small volume and was 7.5 pH at the time of our inspection, which Mr. Wilson reported as normal. The other waste is cooling tower bleedoff water to maintain 900 ppm hardness. The pH is controlled at 6.5.

The Southern California Chemical Company collect their industrial waste in a central sump for neutralization and batch pumping to a final interceptor prior to discharge to the County sewer. Due to the nature of their business their waste is usually very high in dissolved solids and pH varies greatly. They supposedly neutralize the acid waste but probably do not lower the pH of caustic waste. They have recently replaced their effluent pump at the central collection sump and the new pump has a capacity of approximately 70 gpm. Mr. Wilson R. Barnes, Vice-President of the company did not know of the 5 gpm limitation placed on their effluent due to commingling of storm water.

Mr. Robert Moore reported later to us that there is a line restriction which reduces the flow to the required 5 gpm. Inspection was made of the final interceptor and it was found full of brown sludge. The scaling qualities of their waste was in evidence by floating crustation in the trap. Management was instructed to immediately have the sump cleaned. We observed a flow of clear water being discharged via a 2" pipe to the interceptor. This turned out to be uncontaminated spray cooling water. The company was instructed to immediately correct this ordinance violation.

TTO-bw 8

cc: Sec. D

RAYMOND 3-9201
8832 DICE ROAD, SANTA FE SPRINGS, CALIFORNIA • OXBOW 8-8226
LAWRENCE 1-6570

California Oxygen Company

DIVISION OF AMERICAN CRYOGENICS, INC.

Calox

September 22, 1961

Santa Fe Springs Fire Department
11736 Telegrph Road
Santa Fe Springs, California

Attention: B. J. Thompson
Fire Protection Officer

Gentlemen:

Regarding our conversation of Friday, September, as to the location of the diesel fuel pump at 8838 Dice Road, Santa Fe Springs, this letter is to verify the verbal agreement made on this date. California Oxygen Company will not use this storage tank and pump for fuels and gases other than the diesel fuel without first applying for new permits through your office.

Thank you for your cooperation in this matter.

Very truly yours,

CALIFORNIA OXYGEN COMPANY

Ed Lee

Ed Lee
Traffic Manager

ED:db

DICE 02708

HazMat Emergency Incident Report

Log #	Incident Date	Date On Scene
910162	01/18/91	01/18/91

Team #	Team Leader	Team Assistant	Time On Scene	Date Left Scene	Time Left Scene
211	Brougher 057	Domingo 036	14:00	01/18/91	15:00

Time Notified	Time Occurred	Report Agent	Agent Name	Agent Callback #
12:15	:	F64	KLUNK DAVE CAPT	213-944-9713

Site Name	Location
CATCH BASIN	08832 DICE RD SFS 90670

Complaint
2 to 5 gallons of waste oil dumped into storm drain on railroad property.

Incident Grade: Very severe

Agencies On Scene	Agencies Contacted	Other	Incident Commander	Commander Name
064 F64		N	Z99	BROUGHER

(1) Chemical or Trade Name	Hazard	Physical State Stored	Physical State Released
PETROLEUM PRODUCT	C	o Solid ● Liquid o Gas	o Solid ● Liquid o Gas

Quantity Released	Released to	Extent of Release	Container Type	Material	Container Capacity
3.000 o lbs ● gal o cu ft	■ soil □ pavement □ air □ water □ other		C	P	5.000 o lbs ● gal o cu ft

Container	# of Containers	Additional Information
o fixed ● mobile	1	2 to 3 gals of product was dumping on soil in storm channel. A small amount of oil was evident in the water. The representative for the city stated that they would clean-up the oil contaminated soil, as well as remove.... [more on file]

Release Factors		HMCP Actions (√)	Other Agency Actions (×)	
√ Intentional Act	Fire	Establish Safe Area	Contact Agencies	Board Memo Issued
Suspicious Act	Explosion	HazCat	√ Investigate	Take Samples
Abandoned	Spill	Evacuation	Call Clean Up Co.	No Action Taken
Mechanical Failure	Unknown	Contact PRP	Remove Hazard	NOV Issued
Collision/Overturn	No Release	Contact OES	Provide Public Info	Hearing Issued
		Contact EPA	Contact DoHS	PHL Issued
Other		Other		Road Closure

Responsible Party Business Name	Authorized Representative Name
CITY OF SANTA FE SPRINGS	GOLDSTEIN JERRY

RP Address	RP Phone #
11710 TELEGRAPH RD SFS 90670	213-868-0511

Authority for Clean Up	Clean Up Company	Cost	Site Entry Level
Private Land Owner		$ 500	o A o B o C ● D o No Entry
Business	Name		Property Use: City Street 4855
√ City 64			
County	Time On Scene: :	Time Complete: :	Surrounding Area: Commercial Property 4850
State			
Federal	Date On Scene: / /	Date Left Scene: / /	Program Referral: □ Site Mit □ Enforcement □ Inspect
Other			

(1) # of Persons Exposed	Ref Chem #(s)	Symptoms
0		

(2) # of LA County Employees Exposed	Ref Chem #(s)	Symptoms
0		

Additional Information

Agen: A-SQAMD;B-Business;C-CalTrans;D-Citizen;E-EPA;F-Fire;F-F HazMat;G-Fish&Game;H-CHP;I-Ind Waste;L-Coast Guard;M-St Maint;N-Dth Co;O-Inc City;P-Police;p-P HazMat;R-Dth Fed;S-Sheriff;T-DoT;W-Flood;X-Other;Y-SDHS;Z-HMCP
Hazard: A-Acid;B-Base;C-Combust;D-Drug;E-Expl;F-Flam;I-Infect;K-Irrit;N-Non;O-Oxid;P-Pois;R-Reac;T-Toxic;U-Unknown;W-Water Reactive Extent: 1-Vehic;2-Equip;3-Floor;4-Structure;5-Property;6-Beyond;7-No;8-Unknown
Container Type: B-Bags/Boxes;C-Carboy/Can/Bottle;D-Drum;G-Gas Cylinder;H-No Container;R-Rail Car;T-Tank;V-Vehicle (Truck/Car) Material: 6-Glass;M-Metal;N-No Container;P-Plastic;U-Unknown;W-Paper/Wood
Prop Use/Surr Area: 2400-Residence;2480-School;2473-Medical Facil;4842-U.S. Forest;4844-Vacant;4848-Office Bldg;4850-Commercial Prop;4855-City Street;4856-Highway;4857-County Facil;4858-Incorp City;4859-Other Govt Agency

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER
PROJECT PLANNING AND POLLUTION CONTROL DIVISION

INSPECTOR'S REPORT

TO: CARL SJOBERG DATE: 10/29/80

FROM: JERRY WONG FILE: PART OF I-225-1H

INDUSTRY: M.G. BURDETT CO.
8832 S. DICE RD., SANTA FE SPRINGS

REPORT: BILLS REQUIRING FIELD INVESTIGATION.
I CONTACTED MR. BILL OSTER (TEL 564-5711), MANAGER OF M.G. BURDETT CO. IN LOS ANGELES. HE TOLD ME THE AIR SEPARATION PLANT IS NOT IN OPERATION AT THIS TIME, BUT WILL APPLY INDUSTRIAL WASTE PERMIT FOR NO DISCHARGES AT THIS TIME.
ATTACHED NOTIC ISSUED TO MR. BILL OSTER, MAILING ADDRESS - P.O. BOX 54083, TERMINAL ~~AN~~ ANNEX, LOS ANGELES, CA. 90054.

761550L-15-CE 658-2-70

DICE 02710

STEPHEN J. KOONCE
COUNTY ENGINEER

RAYMOND W. LOOMIS
Assistant County Engineer

COUNTY OF LOS ANGELES
DEPARTMENT OF COUNTY ENGINEER-FACILITIES

LOS CERRITOS REGION
16623 SOUTH BELLFLOWER BOULEVARD
BELLFLOWER, CALIFORNIA 90706
866-7011

BOARD OF SUPERVISORS
PETER F. SCHABARUM
KENNETH HAHN
EDMUND D. EDELMAN
JAMES A. HAYES
BAXTER WARD

OCTOBER 30, 1980

M.G. BURDETT CO.
8832 DICE RD.
SANTA FE SPRINGS, CA. 90670

File No. PART OF I-225-1H

Gentlemen:

PERMIT REQUIRED

It has come to the attention of this office that you are utilizing or are presently responsible for the maintenance of industrial waste pretreatment or disposal facilities at the above location. You are required to submit the following within 30 days from the receipt of this letter to continue use of your facility:

(X) Complete and sign the enclosed permit application. #Y100666

(X) Complete and sign the enclosed Additional Information Questionnaire for Permit Applicants.

(X) An application fee of $50.00 payable to Los Angeles County Engineer is required.

( ) Other: _____

Submit to: Department of County Engineer-Facilities
Sanitation Division
16623 S. Bellflower Blvd.
Bellflower, Ca. 90706

An Annual industrial Waste inspection fee may be required upon permit issuance. Please call (213) 866-7011 Ext. 255 for additional information.

Very truly yours,

STEPHEN J. KOONCE
County Engineer

By Jerry Wong

DEPT. OF COUNTY ENGINEER-FACILITIES
SANITATION DIVISION

JERRY WONG
INDUSTRIAL WASTE ENGINEER INSPECTOR

LOS CERRITOS DISTRICT
16623 BELLFLOWER BOULEVARD
BELLFLOWER, CALIFORNIA 90706

866-7011
EXT 255 · 256

Note: A permit fee may be required by the local City or County Agency.
This form when properly signed shall be a valid permit unless suspended or revoked.

DICE 02711

To Dept. of County Engineer-Facilities
Cashier Section -Room 604
550 S. Vermont Avenue
Los Angeles, Ca. 90020

From
LIQUID AIR INC.
8832 DICE ROAD
SANTA FE SPRINGS, CALIFORNIA 90670
(213) 685-4960

I-00225

SUBJECT City of Santa Fe Springs, Sanitation Division DATE 8/22/80 FOLD
Permit #4061

Gentlemen:

Permit #4061 is for a section of the plant which is no longer owned by Liquid Air Corporation. This section is now owned by M. G. Burdett.

STEVEN L. PEBLER
Plant Manager
Liquid Air Corporation

SIGNED Steven L. Pebler

LYNWOOD / ALAMEDA
DATE

CITY OF SANTA FE SPRINGS SANITATION DIVISION

Field

-------- ANNUAL INDUSTRIAL WASTE INSPECTION FEE - 1980-81 ------

PERMIT NO.	LOCATION	CLASS	FEE	PENALTY	TOTAL
04061	8832 S DICE RD	D	$150.00	$0.00	$150.00

YOUR BILLING DATE IS AUG 11, 1980. FEE SUBJECT TO 10% PENALTY FOR EVERY 30 DAYS DELINQUENT PAST THE BILLING DATE. PERMITS DELINQUENT OVER 90 DAYS ARE SUBJECT TO SUSPENSION.

M.G. BURDETT CO.
~~LIQUID AIR~~
8832 S DICE RD
SANTA FE SPRINGS CA 90670

FILE I-00225-1H

AUG 11 19

>>>>> RETAIN THIS PORTION FOR YOUR RECORDS <<<<<

DICE 02712

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

AIRCRAFT TRANSPORTATION REQUEST

ATE OF TRIP	DATE OF REQUEST 01/29/93
REQUESTED BY Marty Kasman	PHONE (213) 890-4070
CONTACT	PHONE
CODE OR ORDER NUMBER 40185	APPROVED BY / CHARGES ☐ YES ☒ NO
MISSION LOCATION See Below	TIME AM
NUMBER OF PASSENGERS 1	CARGO Photographic Equipment

DESCRIBE FLIGHT REQUEST IN DETAIL (INCLUDE PROPOSED STOPS, ESTIMATED STAY AT DESTINATION, ETC.)

Liquid Air Corporation
8832 Dice Road
Santa Fe Springs, CA 90670

Need to perform fly-over of facility to photograph facility yard and surrounding areas. This facility is under investigation by the Health Hazardous Materials Division for State hazardous waste violations.

AIRCRAFT	PILOT CREW
FLIGHT TIME STOP START TOTAL	CREW TIME STOP START TOTAL

REMARKS

Form 408 9-87 76H400

DICE 02713

SPENT SOLVENT WASTE
LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: _____ CWMI Profile Number: _____

EPA Hazardous Waste Number: _____ Manifest Number: _____

This form is submitted to _____ in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and recordkeeping requirements set forth at 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations. (See instructions on reverse side for marking appropriate box.)

RESTRICTED WASTE REQUIRES TREATMENT

☐ 1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

☐ 2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility WAP, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

☐ 3. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

RESTRICTED WASTE SUBJECT TO VARIANCE

☐ 4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____

_____

_____

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

_____

Signature Title Date

Copyright: November 1988

November, 1988