

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



12-02-02

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R0809

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

R0809

R02462 ✓ T

November 25, 2002

Mr. Nicholas DiFranco
P.O. Box 237
Keasbey, NJ 08832

Dear Mr. DiFranco:

Subject: Environmental Investigation at 901 Embarcadero, Oakland CA 94606,
Former Liquid Carbonic

Alameda County Environmental Health staff have received and reviewed the September 20, 2002 Work Plan for Soil Remediation and Additional Characterization and the November 13, 2002 summary report prepared by Kennedy/Jenks Consultants. This work plan further investigates areas of concern at the site following up the May 2001 initial investigation. Areas are designated for excavation and re-sampling and for groundwater characterization. I have corresponded with your consultant and concur with the work plan with the following comments:

- Our office does not see the need to do additional investigation near KB-4, the former hydraulic lift.
- Groundwater will be analyzed for acetone, if there is evidence of soil contamination within the former acetone drum storage area.
- Please notify our office prior to performing the proposed work

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Ms. M. Durant, Kennedy/Jenks Consultants, 622 Folsom St., San Francisco, CA 94107
Mr. D. Herman, Port of Oakland, P.O. Box 2064, Oakland, CA 94604-2064

Wpap901Embarcadero

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



04-12-01

P0809

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 11, 2001
StID # 220 (SLIC)

Mr. Nicholas DiFranco
Manager, Environmental Affairs
Praxair, Inc.
P.O. Box 237
Keasbey, NJ 08832

Re: Subsurface Characterization Work Plan, 901 Embarcadero, Oakland CA 94606

Dear Mr. DiFranco:

Our office has received and reviewed the February 9, 2001 Subsurface Characterization Work Plan for the above referenced site as prepared by Kennedy/Jenks Consultants (KJ). We also spoke with Ms. Meredith Durant of KJ and Ms. Jeriann Alexander of Subsurface Consultants. As you are aware, this work plan is fairly comprehensive, in that it attempts to investigate all potential chemical release areas. I understand it is the result of a meeting with you, your consultant, the Port of Oakland and their consultant.

Our office approves of this work plan with the following comments and requirements:

- Four of the proposed borings will be converted into temporary monitoring wells to determine groundwater gradient. It is recommended that several groundwater elevation readings be taken over the entire day to evaluate tidal influence at the site.
- For those samples where vehicle activities may have occurred, the analysis of total petroleum hydrocarbons as motor oil should also be added to your analytes. This may be done by performing total extractable petroleum hydrocarbons (TEPH) analysis on the samples and extending the analysis to include both diesel and motor oil. We also recommend performing a silica gel cleanup step on the water samples prior to this analysis.
- Please have the laboratory include a chromatogram of hydraulic fluid since sampling will be done to determine releases from a former hydraulic lift. The lab should attempt to characterize the samples if they resemble the standard ie gasoline, diesel, motor oil, hydraulic fluid etc.
- Please insure that the proposed volatile organics analysis (VOCs) includes the analyte, MTBE.
- Though not specified in the work plan, it is assumed that the "metals" analysis will include the 17 CAM metals unless further specified to our office.
- In your report, if deemed appropriate or requested by our office, please also include iso-concentration contours for the analytes found in soil and groundwater. In addition, your recommendations should consider both human health and ecological risk evaluations.

Mr. N. DiFranco
Re: 901 Embarcadero, Oakland 94606
April 11, 2001
Page 2

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Ms. M. Durant, Kennedy/Jenks Consultants, 622 Folsom St., San Francisco, CA 94107

Mr. M. Rodgers, Alliance Gas Products, 901 Embarcadero, Oakland CA 94606-5120

Mr. D. Herman, Port of Oakland EH&SC, P. O. Box 2064, Oakland CA 94604-2064

Ms. J. Alexander, Subsurface Consultants, 3736 Mt. Diablo Blvd., Suite 200,
Lafayette, CA 94549

Mr. L. Griffin, City of Oakland Fire Services, 1605 MLK Jr. Dr., Oakland CA 94612

Ms. B. Graham, SFRWQCB

Wpap901Embarcadero

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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RO 2462
RO 809

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 4, 2000
StID # 220

Mr. Nicholas DiFranco
Manager, Environmental Affairs
Praxair, Inc.
P.O. Box 237
Keasbey, NJ 08832

Re: Environmental Site Investigation at 901 Embarcadero, Oakland CA 94606

Our office has received your deposit for Alameda County oversight costs associated with the above referenced site. I have reviewed the Phase I Environmental Site Assessment prepared by Kennedy/Jenks Consultants in addition to other site history and agency reports provided by the Port of Oakland. As you are aware, these reports indicate a long list of environmental issues that are recommended for further investigation. These issues include potential areas of soil and groundwater contamination in addition to recommendations for obtaining required permits, repairing equipment, and changing operation, storage and handling practices. It is advised that you work with the other regulatory agencies to obtain complete environmental compliance.

Our office requests a work plan be submitted to address all items mentioned in the Kennedy/Jenks report. You may choose to meet with our office to discuss any specific elements of your work plan prior to submission. **Please contact our office within 30 days and notify us in writing of your intention to address the environmental clean-up issues.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. M. Rodgers, Alliance Gas Products, 901 Embarcadero, Oakland 94606-5120
Mr. D. Herman, Port of Oakland EH&SC, P.O. Box 2064, Oakland CA 94604-2064
Mr. L. Griffin, City of Oakland Fire Services, 1605 MLK Jr. Dr., Oakland CA 94612
Ms. B. Graham, SFRWQCB

Wp901Embarcadero

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

10-18-00
RO# 2462 (Praxair)

October 17, 2000

Mr. John J. Sibley, Esq.
Praxair
39 Old Ridgebury Road
Danbury, CT 06810-5113

Mr. Marvin Rodgers
Alliance Gas Products, Inc.
901 Embarcadero
Oakland CA 94606-5120

Mr. Doug Herman
Port of Oakland EH&SC
P.O. Box 2064
Oakland CA 94604-2064

Mr. Jonathan Redding
Wendel Rosen Black & Dean LLP
1111 Broadway, 24th Floor
Oakland CA 94604-2047

ENVIR
ENVIRO
1131 Hai
Alameda
(510) 56
FAX (510)

Same address:

901 Embarcadero,
Oakland

RO #809 (STID# 220)
Liquid Carbonic Corp.
(LUST) CLOSED

Re: Environmental Site Investigation at 901 Embarcadero, Oakland CA 94606

Dear Gentlemen:

Our office has been requested by the City of Oakland Fire Services Agency to oversee the site investigation and remediation of the above site per written authorization from Mr. Leroy Griffin, Inspections Program Manager. Because of the anticipated impact of surface releases at the site to groundwater, our office must also obtain concurrence with the San Francisco Regional Water Quality Control Board (SFRWQCB) to act as their agent in overseeing this site. Our office has contacted the SFRWQCB and it appears that they do not have any on-going clean-up orders on this site. With the condition that the Water Board does not any objection with Alameda County Environmental Health's oversight, our office will act in their behalf as lead oversight agency for the site remediation. It also anticipated that other agencies would be involved to help improve general operating practices, which have led to the releases under investigation.

Therefore, in accordance with County Ordinance Code Section 6.92.060 our office requests that a check in the amount of \$3000.00 be submitted to our office to cover anticipated oversight activities. Any unused money will be returned to the depositor at the end of the project. Please remit this deposit to expedite our office's oversight.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

A. Levi, ACEH

Mr. L. Griffin, City of Oakland Fire Services, 1605 MLK Jr. Dr., Oakland CA 94612

Ms. B. Graham, RWQCB

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SENT 8-2-2000

LIQUID CARBONIC CORP

STD # 220

RO #809

August 1, 2000

Mr. Douglas Herman
Port of Oakland, EHSC
P.O. Box 2064
Oakland CA 94604-2064

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1131 Ha
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

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**Re: Request of Deposit for Oversight of Non-Underground Tank Sites at the Ninth Ave.
Terminal, Oakland CA 94606**

Dear Mr. Herman:

This written request for oversight deposit fees for sites within the Ninth Ave. terminal follows our recent conversation regarding the status of 901 Embarcadero Ave., the former Liquid Carbonic site. You have requested that this site be added to the other non-UST sites and areas identified as contaminated, also situated in the general area of Ninth Ave. Currently, our office does not have a SLIC account for the Ninth Ave. Terminal. Our oversight time has been up to now, distributed among the existing LOP sites. Obviously, the Ninth Ave. Terminal site consists of both underground and non-underground releases and our oversight time must be charged accordingly. You are reminded that our office has not yet received a written request by the City of Oakland to oversee the investigation of the former Liquid Carbonic site. You may want to speak with Mr. Leroy Griffin to expedite this matter.

For the sake of clarification, our office requests that you submit a site map indicating the the current boundaries of the "Ninth Ave. Terminal", with the locations of each of the environmental areas of concern labeled. It is understood that the limits of the site may change as new information is obtained. Please submit a check for \$2000.00 payable to Alameda County Environmental Health with "Ninth Ave. Terminal" written on it. This new account will be debited for oversight on those SLIC areas identified. Our office will continue to charge time to the existing LOP sites relative to activities associated with underground tank releases. You are encouraged to request closure of the LOP sites when deemed appropriate by your consultant. Upon conclusion of this project, the remainder of the deposit will be refunded to the Port.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Ms. R. Schoenholz, Port of Oakland, EH&SC

Ms. M. Heffes, Port of Oakland Attorney

Mr. L. Griffin, City of Oakland OES, 1605 MLK Jr. Drive, Oakland CA 94612

SLICdep9thAveTerminal

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO#809

StID 220

November 18, 1996

Ms. Cordelia Clark
Liquid Carbonic, Plant Mgr
901 Embarcadero
Oakland, CA 94606

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Well Decommission at 901 Embarcadero, Oakland, CA

Dear Ms. Clark:

This office and the San Francisco RWQCB have reviewed the case closure summary for the above referenced site and concur that no further action related to the underground tank release is required at this time. Before a remedial action completion letter is sent, the onsite monitoring wells (MW-1 through MW-3) should be decommissioned, if they will no longer be monitored. Please notify this office upon completion of well destruction so a closure letter can be issued.

Well destruction permits may be obtained from Alameda County Flood Control and Water Conservation, Zone 7. They can be reached at (510) 484-2600.

If you have any questions, I can be reached at (510) 567-6762.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: John Carver, Golden Gate Tank Removal, 255 Shipley St,
San Francisco, CA 94107

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R02462
✓ R0809

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

StID 220

November 16, 1995

Mr. John Edwards
Liquid Carbonic Corp
810 Jorie Blvd
Oak Brook, IL 60521

RE: QMR for 901 Embarcadero, Oakland, CA 94606

Dear Mr. Edwards:

I have completed review of Clayton Environmental's November 1995 Quarterly Groundwater Sampling report for the above referenced site. This report documented the sampling events which took place in June and September 1995. All wells detected total petroleum hydrocarbons as diesel (TPH-D), and only well MW-1 detected TPH as gasoline, and BTEX.

The quarterly report did not include calculation for groundwater flow direction. Nor does it appear that the wells have been surveyed to mean sea level. Future reports should include groundwater elevation data and flow direction. This data will determine if groundwater beneath the site is under tidal influence; if wells can be purged prior to sampling; and, if wells are located downgradient from the former underground storage tanks removed.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: ^{df} Dariush Dastmalchi, Clayton Environmental, P.O. Box 9019,
Pleasanton 94566
Arthur Mola, Liquid Carbonic, 901 Embarcadero, Oakland
94606
Dan Schoenholz, Port of Oakland, 530 Water St, Oakland
94607
files (liqcarb.2)

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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✓R0809 (LOP)

RAFAT A. SHAHID, Assistant Agency Director

StID 220

March 28, 1995

Mr. John Edwards
Liquid Carbonic Corp
810 Jorie Blvd
Oak Brook, IL 60521

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

RE: QMR for 901 Embarcerdero, Oakland 94606

Dear Mr. Edwards:

I have completed review of the case file for the above referenced site to determine if closure can be recommended. When three underground storage tanks were removed in September 13, 1989 and one in February 6, 1990, soil collected from the diesel pump island and from the gasoline tank pit exhibited elevated levels of petroleum hydrocarbons. Overexcavation removed most of the contaminated soil. A monitoring well was installed southeast of each of the tank excavation. Groundwater samples were collected and analyzed for only total dissolved solids. No analyses for total petroleum hydrocarbons as gasoline and diesel, or for benzene, toluene, ethylbenzene, and xylenes were performed.

Total dissolved solids at this site are greater than 3,000 ppm. Although the water is not potable, contaminants may be carried to the nearest surface water, namely, the Oakland Inner Harbor. Case closure cannot be recommended until it has been demonstrated that the fuel release will not impact the environment.

At this time, you should initiate a quarterly schedule of well sampling and monitoring. Technical summary reports documenting each well sampling and monitoring episode are also due quarterly. This schedule shall continue until further notice. Please note that groundwater monitoring wells need not be purged prior to sampling.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Dariush Dastmalchi, Clayton Environmental, P.O. Box 9019,
Pleasanton, CA 94566
Don Cameron, Liquid Carbonic, 901 Embarcadero, Oak. 94606
Dan Schoenholz, Port of Oakland, 530 Water St, Oak. 94607
files (11qcarb.1)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RO 2462 (SUC)

V R0809 (LOP)

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

June 16, 1993
STID 220

Liquid Carbonic Corporation
ATTN: Don Cameron
901 Embarcadero
Oakland, CA 94606

Re: 901 Embarcadero, Oakland, CA 94606

Dear Don Cameron:

This office has received and reviewed a Subsurface Investigation by Clayton Environmental Consultants dated February 22, 1993 for the above site. The workplan is accepted with the following comments:

1. Only 1 round of sampling has been done for the monitoring wells on the site. The Regional Board normally requires that 4 consecutive quarters of groundwater monitoring be done for site closure. For this reason this office can not concur with the recommendations on page 6. Two quarters of required sampling have been skipped at this point. The quarterly monitoring schedule should be reimplemented and is due now.
2. The possibility that the groundwater is not being recharged or that the site is under tidal influence would need appropriate documentation over a period of time. This should also be presented in the next report.

If you have any questions please call this office at (510) 271-4530.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Edgar B. Howell, Chief - files
John Edwards, Liquid Carbonic Corp., 135 So. La Salle
St., Chicago, IL 60603
Dariush Dastmalchi, Clayton Environmental
Consultants, 1252 Quarry Lane, Pleasanton, CA 94566

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RO2462 (SUC)

✓ R0809 (LOP)

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

September 8, 1992
STID #220

Mr. John Edwards
Liquid Carbonic Corp.
135 So. LaSalle St.
Chicago, Illinois 60603

Re: Revised Work Plan for Subsurface Investigation at Liquid
Carbonic Corporation, 901 Embarcadero, Oakland CA 94606

Dear Mr. Edwards:

Our office has received and reviewed the September 3, 1992 revised workplan for subsurface investigation for the above site as provided by your consultant, Clayton Environmental Consultants. This workplan addresses the comments of my August 25, 1992 letter. Two of the three monitoring wells will be located in the assumed downgradient location relative to the diesel and gasoline tank pits. The approximate locations, as depicted in the Figure 3 map presented, is acceptable and work may proceed as soon as possible. Please keep the County appraised of any significant delays in the monitoring well installations. You are requested to inform the undersigned two working days in advance of the well installations for possible on-site witnessing.

You may contact me at (510) 271-4350 should you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Barney M. Chan".

Barney M. Chan
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office
Mr. D. Cameron, Liquid Carbonic Corp., 901 Embarcadero,
Oakland CA 94606
Mr. A. Clark-Clough, Port of Oakland, 530 Water St., Oakland
CA 94607
Mr. A. McElligott, Clayton Environmental Consultants, 1252
Quarry Lane, Pleasanton, CA 94566
R. Hiett, RWQCB
E. Howell, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



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RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

August 25, 1992
STID #220

Mr. John Edwards
Liquid Carbonic Corp.
135 So. LaSalle St.
Chicago, Illinois 60603

Re: Comment on Workplan for Subsurface Investigation at Liquid
Carbonic Corporation, 901 Embarcadero, Oakland CA 94606

Dear Mr. Edwards:

Our office has received and reviewed the August 7, 1992 workplan for subsurface investigation for the above site as provided by your consultant, Clayton Environmental Consultants. This workplan calls for the installation of three monitoring wells two of which would be located in the former tank excavation pit of the diesel and gasoline tanks and the third in an arbitrary chosen location for gradient triangulation. The logic being that the site is likely tidally influenced therefore to avoid the risk of not locating a well in the verified downgradient it is suggested that the wells be located in the former tank pits.

Please be advised that it is this office's opinion that when at all possible, monitoring wells should be drilled into native or undisturbed soils. Wells located in backfill will tend to act as a sink for groundwater and can lead to unrepresentative groundwater elevation readings. It would be more reasonable to locate the two wells between the former tank pits and the Inner Harbor. This is the likely downgradient direction to the former tank pits and will not be adversely affected by the tidal influence.

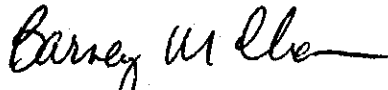
You are therefore requested to send a map depicting the new locations of the proposed wells for our office's approval. In addition, although it appears that overexcavation of the pits has been completed, soil samples taken from the borehole at the time of the well installation will give further proof of the extent of any contamination. Please also note for the the two wells adjacent to the former tank pits, you will be required to analyze each soil sample taken from every five foot interval. This is required in accordance to the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", 10 August 1990. Although not stated in the proposal, be aware that our office recommends a screen interval of five feet above and ten feet into the first encountered groundwater.

Mr. John Edwards
Liquid Carbonic Corporation
STID # 220
August 25, 1992
Page 2.

You are reminded to send copies of all reports, analytical results or proposals to the Regional Water Quality Control Board (RWQCB) to the attention of Mr. Rich Hiett. Their address is 2101 Webster St., Fourth Floor, Oakland CA 94612. Any extensions of agreed upon deadlines must be made in writing by this office or that of the RWQCB.

Please provide the requested map to our office within thirty (30) days of receipt of this letter. You may contact me at (510) 271-4350 should you have any questions or comments regarding this letter.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office
Mr. D. Cameron, Liquid Carbonic Corp., 901 Embarcadero,
Oakland CA 94606
Mr. A. Clark-Clough, Port of Oakland, 530 Water St., Oakland
CA 94607
Mr. A. McElligott, Clayton Environmental Consultants, 1252
Quarry Lane, Pleasanton, CA 94566
R. Hiett, RWQCB
WP-901Emb

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R02462
VR0809

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

Certified Mail #P 062 127 720

December 20, 1989

Mr. John Edwards
Liquid Carbonic
901 Embarcadero
Oakland, CA 94606

Subject: Unauthorized Release
Removal of Underground Fuel and Product Tanks
Liquid Carbonic
Oakland, CA

Dear Mr. Edwards:

Thank you for submitting the results for analysis of subsurface soil and ground water samples taken in response to the underground tank removals from the above shown facility. Because of the degree of contamination found, this facility is considered to have experienced a confirmed release of petroleum hydrocarbons that has impacted subsurface soil and ground water. The extent of this contamination must be assessed and remediated.

Our office will be the lead agency overseeing both the soil and groundwater remediation of this site. The Regional Water Quality Control Board (RWQCB) is currently unable to oversee the large number of contamination cases within Alameda County and has delegated the handling of this case to our Division. We will be in contact with the RWQCB in order to provide you with guidance concerning the RWQCB's remediation requirements. However, please be aware that you are responsible for diligent actions to protect waters of the State.

To complete contaminant assessment and begin remediation, we require that you submit a work plan which, at a minimum, addresses the items listed below and presents a timetable for their completion. Please submit this workplan within 30 days of the date of this letter.

Liquid Carbonic
December 20, 1989
Page 2

I. Introduction

- A. Statement of scope of work
- B. Site map showing location of existing and past underground storage tanks
- C. Site History
 - provide historical site use and ownership information. Include a description of types and locations of hazardous materials used on site.

II. Site Description

- A. Vicinity description including hydrogeologic setting
- B. Initial soil contamination and excavation results
 - provide sampling procedures used
 - indicate depth to ground water
 - describe soil strata encountered
 - provide soil sampling results, chain of custody forms, identity of sampler
 - describe methods for storing and disposal of all soils

III. Plan for determining extent of soil contamination on site

- A. Describe approach to determine extent of lateral and vertical contamination
 - identify subcontractors, if any
 - identify methods or techniques used for analysis
 - provide sampling map showing all lines of excavation and sampling points
 - if a step out procedure is used, define action level for determination of "clean" isopleth
 - provide chain of custody forms, lab analysis results, all receipts and manifests, & identity of sampler
- B. Describe method and criteria for screening clean versus contaminated soil. If onsite soil aeration/bioremediation is to be utilized, then provide a complete description of method that includes:
 - volume and rate of aeration/turning
 - method of containment and cover
 - wet weather contingency plans
 - permits obtained
- C. Describe security measures

Liquid Carbonic
December 20, 1989
Page 3

IV. Plan for determining ground water contamination

- Construction and placement of wells should adhere to the requirements of the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks". Provide a description of placement and rationale for the location of monitoring wells including a map to scale.
- The placement and number of wells must be able to determine the extent and magnitude of the free product and dissolved product plumes.

A. Drilling method for construction of monitoring wells

- expected depth and diameter of monitoring wells
- date of expected drilling
- casing type, diameter, screen interval, and pack and slot sizing techniques
- depth and type of seal
- development method and criteria for adequacy of development
- plans for cuttings and development water

B. Ground water sampling plan

- method for free product measurement, observation of sheen
- well purging procedures
- sample collection procedures
- chain of custody procedures
- procedures for determining ground water gradient

D. Sampling schedule

- measure free product weekly for first month following well installation
- measure free product and dissolved constituents monthly for first three months.
- after first three months monitor quarterly.
- monitoring must occur a minimum of one year.

V. Provide a site safety plan

Liquid Carbonic
December 20, 1989
Page 4

VI Development of a remediation Plan.

- A. The remediation plan is to include a time schedule for remediation, and, at minimum, must address the following issues:
- removal of all free product. Manual bailing is not acceptable as a recovery system. Actual amount of free product removed must be monitored and tabulated.
 - remediation of contaminated soils and dissolved constituents must follow RWQCB's resolution No. 68-16.
 - soils containing 1,000+ ppm of hydrocarbons must be remediated. Soils containing between 100 and 1,000 ppm must be remediated unless sufficient evidence is provided which indicates no adverse effects on groundwater will occur. Clean up of soils to 100 ppm is strongly recommended.
 - design of remedial action system should be based on a review of hydrogeologic and water quality data and on an evaluation of mitigation alternatives. The determination of probable capture zone(s) of extraction system(s) should be based on aquifer characteristics as determined by aquifer test data

VII Reporting

- A. Technical reports should be submitted with a cover letter from Liquid Carbonic. The letter must be signed by a an authorized representative.
- B. Monthly reports must be submitted for the next three months with the first report due 90 days from the above letter date.
- C. Quarterly reports must be submitted with the first report due 90 days after the final monthly report. These reports should describe the status of the investigation and cleanup.
- D. All reports and proposals must be signed by a California-Certified Engineering Geologist, California Registered Geologist or a California-Registered Civil Engineer (see page 2, 2 June 1988 RWQCB document). A statement of qualifications should be included in

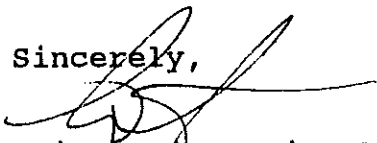
Liquid Carbonic
December 20, 1989
Page 5

all reports. Initial tank removal and soil sampling does not require such expertise; however, borehole and monitoring well installation and logging, and impact assessments do require such a professional.

All proposals, reports and analytical results pertaining to this investigation and remediation must be sent to our office and RWQCB. You should be aware that this Division is working in conjunction with the RWQCB and that this is a formal request for technical reports pursuant to California Water Code Section 13267 (b). Failure to respond or a late response may result in referral of this case to the RWQCB for enforcement and may subject Liquid Carbonic to civil liabilities imposed by the RWQCB to a maximum amount of \$1,000 per day. Any extensions of agreed upon time deadlines must be confirmed in writing by either this Division of the RWQCB.

Should you have any questions concerning the contents of this letter or the status of this case please feel free to contact me.

Sincerely,



Ariu Levi, Senior Hazardous Materials Specialist
Alameda County Hazardous Materials Program

cc: Gil Jensen, Alameda County District Attorney, Consumer &
Environmental Protection
Rafat Shahid, Assistant Agency Director
Ed Howell, Chief HazMat Unit
Lester Feldman, SFRWQCB
Howard Hatayama, DOHS
Inspector Hallert, OFD
Bill Wilkander, SSC
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

DAVID J. KEARS, AGENCY
~~CAROLYN LESTER~~ Agency Director



Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

R02462
✓ R0809

Telephone Number: (415) 271-4320

Certified Mailer # P 833 981 165

January 24, 1989

Mr. William Stuhlreyer
Plant Manager
Liquid Carbonic Corp.
901 Embarcadero
Oakland, CA 94606

NOTICE OF VIOLATION

Dear Mr. Stuhlreyer:

On December 30, 1988 the Hazardous Materials Division inspected the premises shown above. The following violations of the California Code of Regulations were noted at this facility.

Title 22:

1. Sec. 66471 - The nature of the hazardous wastes used at the facility are not identified.
2. Sec. 66508 - Hazardous wastes in the aboveground storage tanks have been kept on the facility for over 90 days, and no beginning accumulation date was identified.
3. Sec. 66508 - Nonstationary waste containers at the facility are not labeled for composition/physical state, type of hazards posed, and name/address of waste generator.
4. Sec. 66493 - Biennial reports for off-site hazardous waste shipment from the facility have not been submitted on March 1 of every even-numbered year. Reports should include EPA ID# and name/address of generator; EPA ID# and identification of all facilities to which waste was shipped; name and EPA ID# of each transporter used; a description of each waste shipped off-site (including quantity); and the signed certification by the generator.

Mr. William Stuhlreyer
January 24, 1989
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5. Sec. 66484 - The facility could not produce copies of any exception reports, which are required to be sent to the California Dept. of Health Services when there is no confirmation within 45 days of receipt of waste by the disposer.
6. Sec. 67121 - The facility does not have the proper communications, fire extinguishing, and water supply equipment to satisfy the requirements of this section.
7. Sec. 67124 - The facility has insufficient aisle space in monkey dust and TCE storage areas to allow unobstructed movement of personnel and equipment in the event of fire or spill.
8. Sec. 67126 - The facility has made no attempt to familiarize local authorities with the types, properties, and layout of wastes it generates.
9. Sec. 67120 - The facility is not maintained and operated to minimize the possibility of fire, explosion, or hazardous waste release.
10. Sec. 67105 - The facility has no records of employee training that is designed to ensure familiarity with proper handling and emergency procedures for waste materials.
11. Sec. 67140 - A contingency plan for the facility has not been prepared.
12. Sec. 67141 - There is no listing of persons qualified to act as emergency coordinators in the event of a waste material release.
13. Sec. 67142 - Copies of the contingency plan should be maintained at the facility and submitted to the police and fire department and to local hospitals and emergency response teams.
14. Sec. 67144 - The facility does not have an employee on the premises or on call who is responsible for coordinating all emergency response measures.
15. Sec. 67244 - The facility has failed to carry out weekly inspections of waste storage areas and containers.
16. Sec. 67245 - The waste storage areas for TCE and monkey dust do not have adequate secondary storage systems.

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17. Sec. 67261 - Calcium carbide storage at the facility is inadequate to prevent its accidental reaction with water.

Title 19:

18. Sec. 25504a - The facility business plan requires annual inventory information on all chemicals handled in quantities greater than or equal to 500 pounds, 55 gallons, or 200 cubic feet. This list has not been provided.

Title 23:

19. Sec. 25292 - Underground storage tanks on the facility have no provisions for monitoring to detect unauthorized releases of hazardous materials.
20. Sec. 2712 - The facility does not have records dating back three years regarding underground diesel tank monitoring and results, including inventory reconciliation.
21. Sec. 2670 - The abandoned underground tank must be closed in accordance with the provisions of this section, including tank removal, soil sampling, and remediation (if required).
22. Sec. 2643 - The diesel fuel underground tank has had no precision leak test capable of detecting the release of product at a rate of 0.05 gallons per hour.
23. Sec. 2644 - The diesel tank also has no records of a daily inventory reconciliation, which must be done according to the requirements of this section.

In accordance with Sec. 66238, a Plan of Correction must be submitted to this office within 30 days of receipt of this letter. The plan should specify the actions to be taken to address the above violations and the expected dates of completion. A closure plan (blank enclosed) must also be submitted within 30 days for the abandoned underground tank.

Your attention is directed to Sections 25184, 25189, and 25191 of the California Health and Safety Code, which provide for civil and criminal penalties of up to \$25,000 per day for each violation of these regulations.

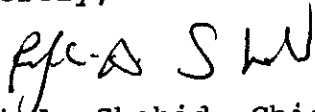
Mr. William Stuhlreyer
January 24, 1989
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In addition, in accordance with Sec. 25294 of the Health and Safety Code, any owner or operator of an underground tank who operates or improperly closes the tank without Alameda County's approval is liable for fines of up to \$50,000 per day on each count.

Additionally, Alameda County Ordinance, Section 3-140.4 et. seq. requires a deposit to be submitted for checking underground tank closure plans and inspection activities. The deposit required is \$333. Costs are charged against the deposit at an hourly rate. If the deposit is exhausted before final approval or if the balance is not sufficient to cover anticipated remaining costs, an additional deposit is required.

If you have any questions concerning this matter, please contact Lowell Miller at 271-4320.

Sincerely,



Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:LM:gw

cc: Dwight Hoenig, DOHS
Gil Jensen, Alameda County District Attorney, Consumer and
Environmental Protection Division
Lisa McCann, RWQCB

Enclosure(s)