Subsurface Consultants, Inc.

PRIVILEGED AND CONFIDENTIAL
MEMORANDUM

To:	Doug Herman EHSC Port of Oakland	Date:	May 18, 2000
		Project Number:	133.009
From:	Jeriann Alexander		
Subject:	901 Embarcadero, Oakland		

Subsurface Consultants, Inc. (SCI) has briefly reviewed documents and correspondence provided by the Port of Oakland related to the environmental condition of the 901 Embarcadero site. Our comments are as follows.

The subject site address encompasses a parcel, which forms the northeast corner of the Ninth Avenue Terminal property. The site is owned by the Port of Oakland and leased to industrial tenants who currently, and have for at least the last 30 years manufactured compressed gases. The tenants include Alliance Gas, Praxair and Liquid Carbonic.

The records reviewed suggest that numerous chemicals and petroleum fuels have been stored and used both inside and outside the existing building. The earliest records reviewed are from a site inspection conducted at the facility in 1990. Notes attached to the site inspection report suggest that acetylene wastes and oily waste products have been discharged on site as early as 1967. Copies of these documents are attached.

Emergency Response Plans filed with the Port by Liquid Carbonic in 1991 and 1992 indicated that several thousand gallons of liquid and gas chemicals were stored onsite. The site plan shows the location of hazardous materials storage, water treatment improvements, tanks and sludge pits. Excerpts from the plans are attached.

Four underground storage tanks were removed from areas outside the structure in 1989 and 1990, and soil and groundwater impacted by petroleum hydrocarbon constituents were reportedly remediated. In 1997 the ACHCSA and RWQCB issued a closure letter with regard to the underground storage tanks. The closure letter suggests that incorrect information such as the groundwater flow direction (shown by others to be toward the freeway and not the estuary) and the distance to the nearest surface water body (400 feet) was used to base the decision for closure.

In July 1999, there was a documented release to the estuary, of a lime-based waste stream from activities conducted by the current tenant Alliance Gas. Emergency response actions were conducted to cleanup the apparent impacts to the estuary and the spilled material onsite (copy of the Oakland Fire Haz. Mat report is attached). The Port conducted a site visit on January 26, 2000 (copy of report is attached), and still observed impacted material near a storm drain inlet, and requested the tenant to complete cleanup actions. SCI understands that also in January 2000, the District Attorney filed a criminal compliant against Alliance Gas. One of the eyewitnesses stated that this type of release from the compressed gas

3736 Mt. Diablo Boulevard ■ Suite 200 ■ Lafayette, California 94549 ■ (510) 299-7960 ■ Fax (510) 299-7970
171 12th Street ■ Suite 202 ■ Oakland, California 94607 ■ (510) 268-0461 ■ Fax (510) 268-0137

manufacturing facility has been observed personally by her (copy of statement is attached) for at least the last eighteen years.

The records do not contain any documentation of site characterization studies, other than those related to the UST's. Further there is no indication that a report documenting the July 1999 release was ever prepared by Alliance Gas. It does not appear that confirmation sampling was ever conducted following emergency response actions. In addition recent correspondence from Alliance Gas suggests that some additional cleanup activities have been conducted without oversight of any regulatory agency (copy of March 2000 Alliance Gas letter).

SCI contacted Barney Chan on March 23, 2000 to inquire about the status of the release. Mr. Chan was unaware that the release had occurred. He also indicated that with the creation of the new Oakland CUPA program, the ACHCSA would not have jurisdiction in this matter unless the City of Oakland requested their assistance. He suggested that Mr. Leroy Griffin of the Oakland Fire Services Department be contacted. Further, Mr. Chan commented that Mr. Griffin might have authority to issue orders to conduct site assessment and investigation studies, and the preparation of reports.

If you have any questions regarding our limited review and comments, please call.

Jeriann Alexander, PE, REA
Registered Environmental Assessor No. 3130
Civil Engineer No. 40469

Attachments: Site Inspection Report and Notes from 1980

Emergency Response Plan Excerpts

Oakland Fire Department Report for July 1999 Release

Port of Oakland Site Inspection Report January 2000

July 1999 Witness Statement

March 15, 2000 Alliance Gas Letter

To: John Blasco 6/24

From: Robin Brewer, Jeanne Cox (Representing ? DTSC)

Subject: Liquid Carbonic, Oakland

On 24 June 80, we inspected the Liquid Carb. plant, at 901 Embarcadero, Oakland, in response t a returned Questionnaire. Problems noted were:

- There is a dirt area, approximately 3'x 20' which is covered with a variety of substances. In areas the soil is stai Blue, green & white from unknown mate
- In the same area there is an oil o flow pipe which discharges to a 6" pip set down into the ground. There was visible oil floating, about 1 foot below ground level. Jerry Avery (Production Manager) said the oil is not removed f the pipe (well?), but allowed to percolate through the ground. We were unable to determine the depth of either the waste oil pipe, or the stained soil.
- There is a lined waste water pond (from Acety waste settling tanks), which overflows - a frequently but regularly. The surrounding

Hs still here 5? MDW 8-12-81

X

THERE IS NO OVERFLOW COLLECTION SYSTEM. THE SURROUNDING AREA IS DIRT.

- 10'-15' EAST OF POND THERE IS A SMALL DEP OF BLACK 'TARRY' SUBSTANCE (APPROXIMATELY 2' SQUARE). DEPTH UNKNOWN.
- THE ACETYLENE WASTE IS PUMPED DIRECTLY T A SUMP (PRIOR TO SETTLING TANKS AND PONDS). MR. AVERY DID NOT KNOW SOURCE OF TWO WASTE WATER HOSES DISCHARGING TO THE SUMP.
- CO. IS CURRENTLY DISPOSING OF WASTE PAINT (FROM ~~SPRAY~~ SPRAY BOOTH) IN THE GARBAGE; WASTE SOLVENT IS DILUTED AND PUT DOWN THE SEWE

WE ADVISED MR AVERY THAT SOMEONE FROM ENFORCE MENT WOULD BE OUT TO INFORM HIM OF CORRECT DISPOSAL & CLEAN-UP PROCEEDURES. EITHER ROBIN OR I WOULD LIKE TO GO OUT WITH YOU ON THE INSPECTIO

- MR. AVERY INFORMED US THAT 'POOL TRUCKS' REMOVED THE SLUDGE FROM THE WASTE WATE POND LAST MARCH.

Site Name: Liquid Carbonic

City: Oakland

County: Alameda

Company Contact: Mr. Jerry Avery

Staff Person Responsible: Joanne Cox and Robin Breuer

Problem: Discharge and dump waste on plant property, acetylene sludge from 1967.

History: Recent plant explosion and fire closed down this operation to rebuild. Plant containerizes gases into cylinders. Pond on property occasionally overflows onto surrounding grounds. On site dumping and oil residue on ground.

Action to Date: Site inspection by Joanne and Robin. We found a multi-colored dumping area; anoil outflow pipe discharging into ground pit; lined acetylene wastewater pond with overflow evidence; paint waste being disposed of into garbage.

John Blasco notified of our findings 6/24/80, (field inspector to go out sampling).

cc: Mark White; Dick B.

report by: Robin Breuer
8/11/80

AREA CODE 415 451-4100

LIQUID CARBONIC
INDUSTRIAL/MEDICAL CORPORATION
901 EMBARCADERO ROAD • OAKLAND, CALIFORNIA 94606

EMERGENCY RESPONSE PLAN

FOR: LIQUID CARBONIC SPECIALTY GAS CORP., OAKLAND, CA. 94606

EMERGENCY COORDINATORS:

1. DENNIS E. FORGASH, PLANT MANAGER
   OFFICE PHONE: (415) 451-4100
   HOME PHONE: (415) 829-0435

2. JOHN S. TAYLOR, ASST. PLANT MANAGER
   OFFICE PHONE: (415) 451-4100
   HOME PHONE: (415) 420-1126

FACILITY DESCRIPTION: (SITE PLAN ATTACHED)

THE PLANT IS LOCATED AT 901 EMBARCADERO ROAD, OAKLAND, CA. 94606 THIS IS A NON-RESIDENTIAL AREA.

THE PLANT IS BORDERED ON THE EAST BY, EMBARCADERO RD. AND INTERSTATE 880, ON THE WEST BY EDEN NATIONAL STEEL, ON THE NORTH BY 9th AVE., AND ON THE SOUTH BY THE PORT OF OAKLAND AND 10th AVE. THERE ARE PUBLIC RESTAURANTS ALSO TO THE SOUTH.

PLANT OPERATING HOURS ARE 06:00 AM TO MIDNIGHT, MONDAY THRU FRIDAY. ACCESS TO THE PROPERTY IS THRU GATES LOCATED ON EMBARCADERO RD. AND 9th AVE. THE PROPERTY IS FENCED ON ALL SIDES.

AREA CODE 415 451-4100

LIQUID CARBONIC
INDUSTRIAL/MEDICAL CORPORATION
901 EMBARCADERO ROAD • OAKLAND, CALIFORNIA 94606

ON SITE HAZARDOUS MATERIALS

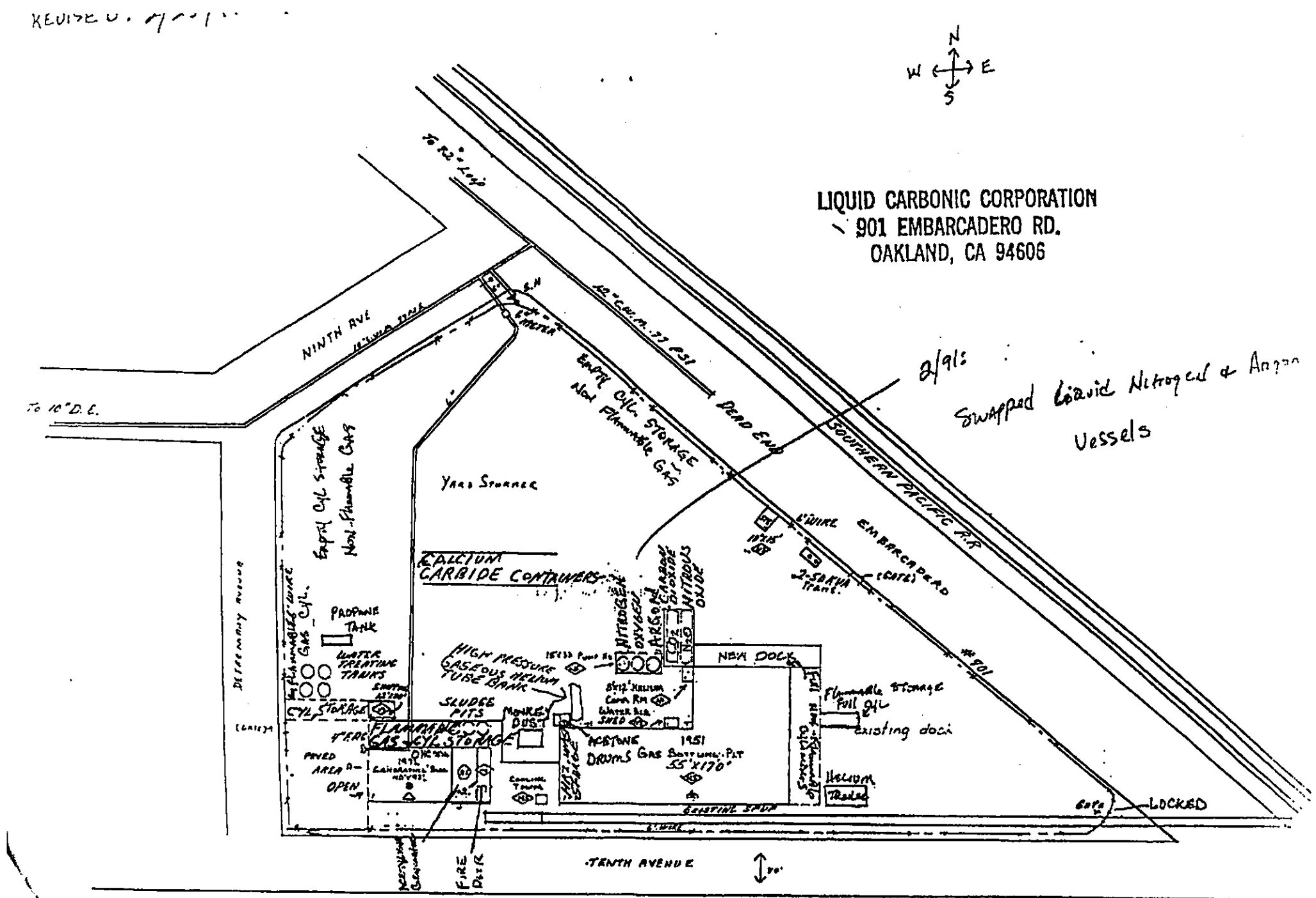
OXYGEN- GASEOUS AND LIQUID
NITROGEN- GASEOUS AND LIQUID
ARGON- GASEOUS AND LIQUID
CARBON DIOXIDE- GASEOUS AND LIQUID
NITROUS OXIDE- GASEOUS AND LIQUID
HELIUM- GASEOUS ONLY
COMPRESSED AIR- GASEOUS AND LIQUID
HYDROGEN- GASEOUS ONLY
ACETYLENE- GASEOUS ONLY
CARBON MONOXIDE- GASEOUS ONLY
CHLORINE- GASEOUS ONLY
FLUOROCARBONS- GASEOUS ONLY
METHANE- GASEOUS ONLY
MIXTURES THERE OF- GASEOUS ONLY
CALCIUM CARBIDE
CALCIUM CHLORIDE
ACETONE
DIESEL FUEL
PAINT (WATER SOLUBLE)

* SEE PLOT PLAN FOR STORAGE AREAS

REVISED: 4/1/91

LIQUID CARBONIC CORPORATION
901 EMBARCADERO RD.
OAKLAND, CA 94606

2/91: Swapped Liquid Nitrogen & Argon Vessels



Report: Lime spill at Alliance Gas Products, 901 Embarcadero, Oakland CA
Date of Incident: July 22nd, 23rd, 1999
OFSA Incident # 934332
Report Written by Firefighter Dan Keenan

On July 22nd, 1999 Oakland Fire Haz Mat 2598 responded to a reported milky white substance flowing into the estuary at 1000 Embarcadero. Engine 2544 was first to respond and upon their arrival they informed us via radio of the white substance flowing into the estuary and reported that it had an odor similar to hydrogen sulfide (rotten eggs). Haz Mat 2598 arrived at 1000 Embarcadero at 1410 hrs. Prior to our arrival, Firefighter Sweeney from Engine 2544 in an attempt to locate the source of the spill went and looked over the fence at the perimeter of the Alliance Gas Products property, 901 Embarcadero Road. He informed us (the crew of 2598 - Captain Mike Fahey and FF Dan Keenan) that he saw a large puddle on the ground of a thick white liquid slurry. Representatives from USCG and the Port of Oakland Harbormaster Louise Irvin-Jones met us at 1000 Embarcadero.

Captain Fahey and I went to take a look at the estuary. I saw the flow of a white milky substance from a concealed storm drain into the waters of the estuary. I also saw what appeared to be dead marine plant life on the rocks at the shore near the outlet of this drain. I climbed over the railing down onto the rocks and located the 24" storm drain pipe that the flow was coming from. Using pH paper I tested the water issuing from the pipe and found that it was a pH of ~13. I then proceeded to take an 8 oz sample of the water coming from the mouth of the drainage pipe (sample #07-22-99-djk-1412). Haz Mat 2598 contacted Oakland Fire Dispatch and requested that they contact Oakland Public Works to obtain an inflatable plug for the storm drain.

OPD Environmental Crimes Unit Officer Ken Whitman arrived on the scene. Oakland Fire Dispatch was contacted to request a representative from the Department of Fish & Game respond to the scene. At this point Haz Mat 2598, USCG and OPD Environmental Crimes Unit Ken Whitman proceeded over to the Alliance Gas Products property. We drove into the property and kept driving through the lot until we found the large white puddle on the ground. I went and took a pH of the puddle and found that it also was a pH of ~13. We were met at the puddle by the General Manager of the plant Russell Wortham. We proceeded to walk the perimeter of the puddle and found where it flowed under a metal plate into a storm drain. I informed Russell Wortham that he needed to immediately dike the flow of the material into the storm drain. At this point I took an 8 oz sample of the white slurry that was in the strorm drain box (sample #07-22-99-djk-1422). OPD Sergeant Ken Whitman took pictures to document the scene and the location of the sample taken. OPD also took statements from the Alliance employees. Harbormaster Irvin-Jones and the Port Security Guard also came to the site of the spill on Alliance property and took pictures of the spill. Russell and his employee Jeff proceeded to immediately dike the flow of the slurry into the storm drain. I asked Russell what the cause of the spill was and he informed me that "a valve had been accidentally left open".

Haz Mat 2599 was dispatched to 901 Embarcadero to assist. Oakland Public Works informed us that they did not have the correct size plug available to plug the storm drain. Oakland Fire Dispatch was contacted to request Morgan Environmental to respond to the scene for assistance in mitigation efforts. Upon their arrival Engineer Kirchner and FF Fontelera from Haz Mat 2599 searched the property for more storm drain inlets. At least two other inlets were found and there were flows of water from other parts of the plant going into these drains. The source of the water flows were shut down. Port of Oakland Environmental Compliance Supervisor Neil Werner arrived at Alliance and took photos of the spill. Captain Mike Fahey went back to the outfall to attempt to insert a plug into the storm drain outlet.

Alliance Gas Products General Manager Russell Wortham was informed that he needed to make immediate arrangements to clean up the spill and the storm drain pipe leading to the estuary. At some point Russell Wortham hired Morgan Environmental to perform the mitigation and clean-up. Russell was very cooperative with all the requests made to him by the various agencies at the scene. While Captain Fahey was attempting to plug the outfall; I asked Russell to show me the valve that was accidentally left open. He brought me around to the back of the large tank #2 and pointed to some plumbing near the bottom of the tanks inside of the secondary containment walls. Russell also told me that he didn't think the lime slurry was that bad because it is used all the time as an agricultural soil additive to increase alkalinity, and as a component of road bed construction. He said that he was not aware of the storm drain inlet on the property and was not aware that it drained straight into the estuary.

Captain Fahey returned from the estuary. The plug that HM 2599 had was too small for the 24" outlet. Morgan Environmental was able to arrange for the rental of a larger plug for the outlet, although it would take some time for it to arrive on the scene. While Captain Fahey was at the outfall he took a sample of the thick white slurry he found on the inside of the outfall pipe (sample #07-22-99-mf-1515).

Russell was again asked to tell us how the spill occurred. He walked us through the Acetylene gas production process and showed us how the lime slurry/water byproduct was pumped into the large tank #1 and the solid lime (calcium hydroxide) allowed to settle. He told us how the water, with a smaller percentage of suspended solids, was pumped from the top of tank #1 into tank #2 and once again allowed to settle. Then the water from the top of tank #2 was pumped off and reused in the reaction vessel to produce the acetylene. He told us how part of the process was not operating properly and as a remedy a sump pump with a length of 1 1/2 " hose attached was on a routine basis lowered into tank #2 on a rope and the water from the top of the tank was pumped off into a lined pool. This lined pool was at the time 3/4 full of water. The water was then somehow pumped from the pool back into the reaction vessel.

He said that the pump was lowered into tank #2 sometime on the afternoon of July 21 and when he showed up to work in the morning at approximately 0730 hrs he turned on the switch that powered the pump. He stated to me that at some point the end of the hose kicked itself out of the pool and started emptying it's flow onto the ground. He said that he discovered the accident at approximately 1000 hrs. I asked him that when he originally told me that a valve had been left open was this what he meant by it. He said yes. He said that somehow they miscalculated the level of the solids in tank #2 when they were lowering the pump into the tank and that the pump must have been into the solids layer of the settling tank. As he was showing us what happened I noticed that the pump was lowered into the lined pool. I asked Russell how the pump got there and he stated that he removed it from tank #2 and placed it in there.

I proceeded back to 1000 Embarcadero to take more samples at the outfall. I took two 1 gallon water samples of the estuary water on the shore near the outfall (07-22-99-djk-1545 & 1540), one 8 oz sample of a mussel in water from the shoreline (07-22-99-djk-1550), and an 8 oz sample of the marine plant life attached to the rocks near the outfall (07-22-99-djk-1558). I took notice of the bleached color of the plant life attached to the rocks in an area covering ~ 2ft wide by 6ft long parallel to the shore. I also at this time took one 8 oz sample of the water & lime slurry from the mouth of the drainage pipe. I took notice of the thickness of the layer of white lime slurry - one inch thick on the bottom of the drain pipe extending as far into the mouth of the pipe as I could see with a flashlight. Photos of the sampled locations were taken by OPD Sergeant Ken Whitman. Field pH measurements were taken at different spots along the embarcadero shorline and pictures of the tested locations were taken by OPD Sergeant Ken Whitman. The pH at every location tested proved to be between pH12 & pH13.

Oakland Fire Services Leroy Griffin, and Department of Fish & Game Warden Danny Reno arrived on the scene. At this point in time Russell arrived at the outfall and began discussions with Leroy Griffin, Captain Fahey, & Danny Reno as concerning the proper way to clean up the spill on Alliance property. It was Russell's opinion that his employees should be allowed to clean up the spill on their own property. It was the opinion of Leroy Griffin, OFSA that a licensed clean-up contractor and hazardous waste hauler should perform the clean up. It was not known exactly whether the pH was above 12.5, thus uncertain if the waste met the criteria for corrosivity. The pH of the waste was between 12 and 13 according to field measurements. I proceeded to take a sample to ALCO lab for a pH measurement using a calibrated digital pH meter. After filtering solids from some of the liquid out of sample #07-22-99-djk-1412 ALCO Chemist Newton Leung found that the sample had a pH of 12.35.

$Ca(OH)_2$ is a lissed Haz mat.

I returned from the ALCO lab with this information to find that the clean up on Alliance property had commenced. Safety issues & HAZWOPER training requirements were taken into consideration when the decision was made by Leroy Griffin to require Alliance Gas Products to have the cleanup performed by a licensed clean up contractor/haz waste hauler. Morgan Environmental was scooping up the slurry and putting it into 55 gallon drums. A total of ~ 26 - 55 gal drums were filled.

The storm drain plug arrived sometime around 1600 hrs. A regulator and valve set up was needed to make it work. Alliance Gas Products employees helped rig up a system with a nitrogen cylinder and coupling adaptors to make the system work. The plug was brought over to the Estuary storm drain outfall. Morgan Environmental employees with the help of myself and Capt. Fahey inserted the plug and inflated it thus stopping any further flow of product into the estuary. This was accomplished at approximately 1840 hrs. The incident was considered stabilized at this time. Haz Mat 2598 returned to quarters. I maintained chain of custody on all the samples storing them in the evidence refrigerator at Station 03 overnight. Morgan Environmental stayed on the scene at Alliance Gas Products completing the clean up of the spill on their property until ~ 2200 hrs that evening.

The next day, Friday, July 23rd, 1999 at 0600 hrs I met with two representatives from the Department of Fish & Game – Warden Danny Reno and Environmental Specialist John Tarpley at the scene of the spill on the Estuary at 1000 Embarcadero. This time of day was chosen for the meeting because it was very close to low tide. There was very good access to the Estuary waterfront at this time in the morning. John and I climbed down onto the waterfront and began surveying the scene. John examined, sampled and photographed the marine organisms and plant life. The extent of the spill was more visible and it was obvious that the spill encompassed a much larger area than previously thought. There were two areas along the waterfront that appeared to have been bleached out significantly. These areas were separated by about 10 feet of waterfront that seemed to have been less affected. Five of the samples that I took on the 22nd were released to Fish & Game for transport to the F&G laboratory in Yountville, CA. Environmental Specialist John Tarpley completed his examination of the waterfront and left the scene to return to his office. Regional Water Quality Board Field Response Team member George Leyva arrived on scene at 0630 hrs and also examined the waterfront area. Warden Danny Reno remained the rest of the day to help monitor and assist in the clean up efforts. Port of Oakland Environmental Compliance Supervisor Neil Werner arrived on the scene at 1000 hrs and documented the clean up efforts with a digital camera.

A clean up crew from Morgan Environmental started work at ~ 0600 hrs. A dam was built out of rocks and sandbags, plastic tarps and plastic sheeting to catch the flush water as it was sent through the storm drain. A 4,600 gallon capacity vacuum truck was positioned and vacuum hoses were laid out to catch the flush water as it cascaded into the dam. A Roto-Rooter hydroflusher with 600' of hose and a special nozzle was brought to the scene to hydroflush the storm drain. The plug was pulled and the Roto-Rooter hose was inserted from the Estuary side. The hose was sent ~ 540' into the storm line and then pulled back onto it's reel. Water flushing was performed the entire time during this operation.

Early into the operation a second release site was discovered as white milky waste began to fill the waterfront about 20 feet from the actual storm outlet. The operation was stopped immediately and the source of the second flow was searched for by moving rocks away from the shore. The retaining wall had a 2" by 8" rectangular hole in it and the milky waste water was issuing from it. It was surmised that there must exist a break in the storm drain pipe somewhere within 40' of the shore. A second dam was built to catch this flush water and a second vacuum hose was brought into place to catch the flow issuing from this hole. The water for the flushing was taken from a Hydrant close to the scene.

The flush water was periodically monitored for appearance and pH. The pH of the water issuing from the storm drain was at all times between pH 12 and pH 13. The Roto-Rooter truck was then repositioned at the storm drain inlet on Alliance Gas Property and the same operation was performed from that end of the spill. The appearance and pH of the flush water was again monitored and it's pH continued to stay high above pH 12. At the end of the flushing operation I took samples of the solid slurry in the bottom of the outfall, and of the water issuing from the mouth of the outfall (sample # 07-23-99-djk-1755 and # 07-23-99-djk-1748). I tested the pH of the water at this time and found that it was still between pH 12 and pH 13. Tom Morgan of Morgan Environmental took a sample of the water/solids matrix inside the vacuum truck at the request of Warden Danny Reno (sample # 001).

It was decided at this time that the emergency phase of the spill was over and that a possible best course of action was to allow the storm drain pipe to aerate. The calcium hydroxide (lime) readily absorbs carbon dioxide from the air, reacts and forms calcium carbonate (chalk). Calcium carbonate is much less soluble (practically insoluble) in water than calcium hydroxide and does not create a high pH when it does dissolve in water. Calcium Hydroxide (lime) is only slightly soluble in water and the pH of an aqueous solution at 78° F is 12.4. The flushing action using the special Roto-Rooter nozzle was run through the length of the storm drain pipe 4 times at pressures averaging 1000 psi. A great deal of aeration and mixing with the flush water should have brought the lime into contact with lots of CO_2, hopefully creating calcium carbonate – one of the most stable, common and widely dispersed materials in nature – occurring naturally as oyster shells, chalk, limestone and marble. At one point during the incident discussions were held concerning the potential benefit of flushing the line with a citric acid wash. It was determined that this type of operation should receive further study until a decision could be made on it's potential benefits and detriments. According to Environmental Specialist John Tarpley, Fish & Game, after consultation with a scientist at the lab in Yountville the best course of action was to allow the lime to naturally stabilize and a citric acid wash was not recommended. Rain water naturally has an acidic pH of about 5.6. Acid Rain, the result of polluted air, often has a pH lower than this, so a few good rainfalls will also help to naturally stabilize any excess lime left in the storm drain pipe. According to Water Quality biologist Mike Rugg of DF&G, the tide waters that fill the Estuary are also buffered very well and should help counteract the high pH caused by the lime slurry.

Samples: # 07-22-99-djk-1545, 1540, 1558, 1550, and 1628 were brought to the Fish & Game lab in Yountville and analyzed by biologist Mike Rugg (707)944-5523. Some of the analysis performed were pH, total alkalinity, hardness and fresh water bioassay.

Samples: # 07-23-99-djk-1755, and 07-22-99-djk-1412 were brought to the EBMUD environmental laboratory (510)287-1664. Some of the analysis requested were total alkalinity, total carbonate, total bicarbonate, total calcium, and pH. Senior Chemist Jack Lim can be contacted about these samples.

PORT OF OAKLAND
CLEAN WATER PROGRAM
STORM WATER INSPECTION REPORT FORM

Date: January 26, 2000

Name, Site Address: Alliance Gas Products, 901 Embarcadero, Oakland 94606

Contact Name: Russel Wortham/(Marvin Rodgers -Accounts Payable)

Phone Number: 510-663-9353 Cell 385-7317 / (510-834-9353)

Business Activity/SIC Code: Manufacture and Store Presurized Gas/2813

Property Owner: Port of Oakland
Port Representative: Douglas Herman
Phone Number: 510-627-1184
Fax: 510-451-5916
Mailing Address: 530 Water Street, Oakland, CA 94607

Please respond to facility compliance issues listed below within 30 calendar days.

Response Date: February 26, 2000

Please analyze sand blast grit for hazardous characteristics and dispose according to local, state, and Federal law

Please perform additional soil removal in the vicinity of the lime settling tanks to remove residue and prevent discharge to storm drain

It is unclear whether facility is required to comply with the State General Industrial Permit (Industrial Gas Facilities? Are required to comply - SIC Code 2813) Please review Industrial Permit to determine status.

Spill Incident – On or around July 26, 1999, a spill of calcium hydroxide occurred at the Alliance Gas Products facility, entered a storm drain and discharged to the estuary near the Reef Restaurant – See attached report.
In July 1999, Mr. Russell Wortham of Alliance was attempting to siphon water from a tank that contained a water/lime mixture, and pump the water to a nearby holding pond and eventually back into the acetylene gas process. The spill occurred evidently when the pump dropped into the lime mixture and at the same time pulled the other end of the hose out of the holding pond and onto the adjacent ground. The lime mixture then flowed to a storm drain and the estuary.

Facility Representative Signature:_____ Date:_____

Print Name of Facility Representative:_____ Inspectors Signature:_____

Distribution: White - Tenant Yellow - Port of Oakland

PORT OF OAKLAND

MEMO

TO: Joe Wong, Director of Engineering
David Alexander, Port Attorney

FROM: Neil Werner, EH&SC NBW

DATE: July 26, 1999

SUBJECT: **Spill at the Liquid Carbonic Site**

As the Port Spill Response Coordinator, I have prepared a short report on the subject spill for your information. Liquid Carbonic, now called Praxair after a recent merger, is a Port tenant in the 9th Avenue Terminal area.

The operator (Alliance Gas Products) who caused the calcium hydroxide spill has taken responsibility for the initial cleanup. The estimate for the cleanup is about $25,000. Alliance Gas Products apparently subleases from Praxair.

I recommend the Port continue to look into the operator's remediation efforts and make sure that no soil or groundwater contamination has resulted from the releases on the leasehold.

cc: Omar Benjamin
Michele Heffes
Roberta Bradley

file: agpmemo.doc

Liquid Carbonic a.k.a.Alliance Gas Products
Spill Report
July 25, 1999

According to routine spill procedures, on Wednesday afternoon, July 21, 1999, Leni Tash, Assistant Harbormaster, called EH&SC to alert Neil Werner of a "white milky substance" in the Estuary adjacent to the Reef Restaurant at the North Basin of the Embarcadero Cove Marina. Mark O'Brien and Neil Werner investigated and confirmed that a whitish cloudy liquid was indeed seeping from the riprap bank just west of the Reef restaurant.

The restaurant operator said that the substance had been noticeable by its appearance and by a sulphur smell, similar to hydrogen sulfide, for a period of time, perhaps a couple of weeks. The source of the spill and the exact nature of the substance in the water was not evident on Wednesday afternoon. Thinking it could be a sanitary sewer line break, the spill was reported to the US Coast Guard and the Regional Water Quality Control Board.

On Thursday morning, the Coast Guard (Petty Officer Evans, 437-3663) called and offered to meet Neil Werner at the site of the spill. Thinking that he should check out the site again, Neil Werner went back to the spill area and observed that the water was clear, but he also observed that the normally green algae on the rocks was white in the spill area and looked bleached or dead. Neil called the Coast Guard back and left a message indicating the spill was not occurring.

Later Thursday afternoon, the Harbormaster reported that the milky substance spill was occurring again and the Hazmat Unit of the Oakland Fire Department was on scene as was the Environmental Investigation officer, Sergeant Ken Whitman, of the Oakland Police Department. The source of the white substance was determined to be the gas manufacturing plant, commonly referred to as Liquid Carbonic. The operator admitted to spilling carbide lime sludge, a by-product of acetylene manufacture, on Thursday morning, but

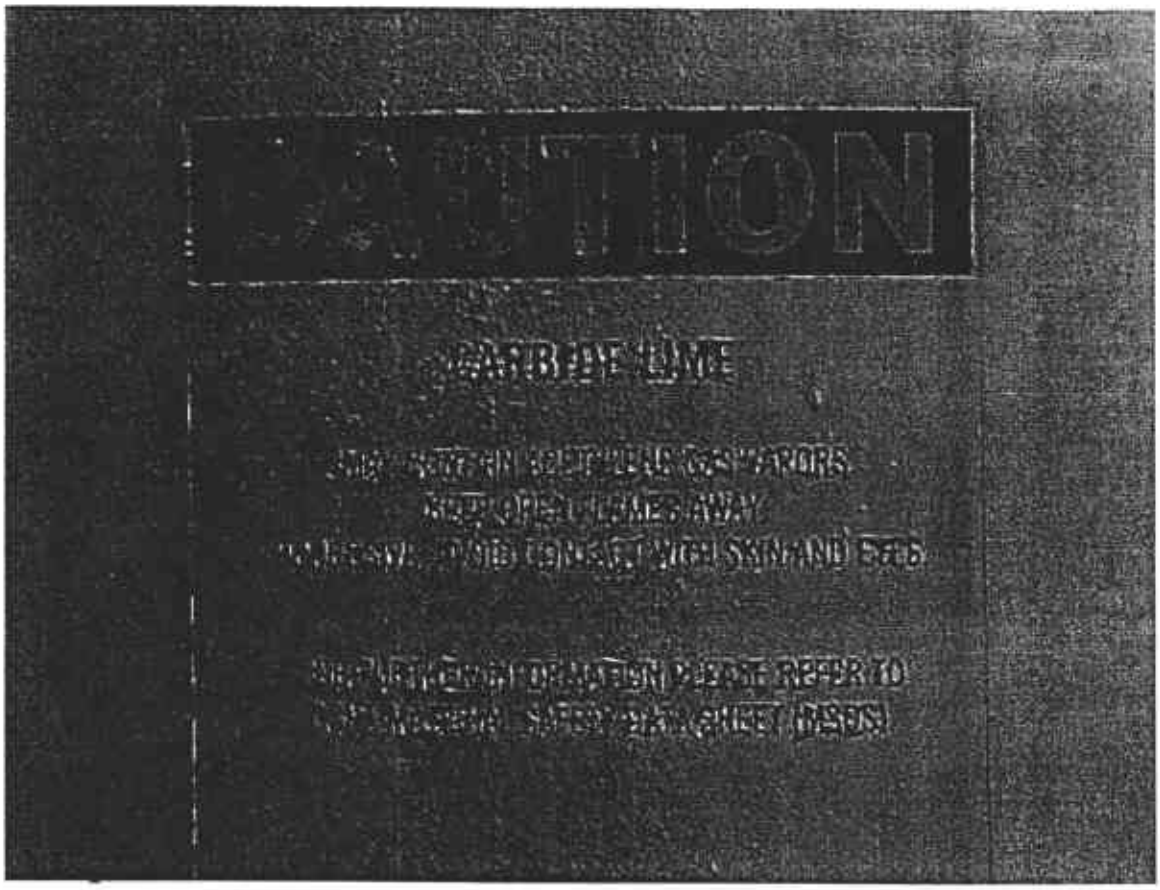


Figure 1

denied that it occurred prior to that time. The operator also took responsibility for engaging a clean-up contractor, Morgan Environmental. The substance was spilled over an unpaved area measuring roughly 150' by 50'. Carbide lime (Figure 1) is a common name for calcium hydroxide. Calcium hydroxide is highly alkaline, pH 12, when mixed with water. The calcium hydroxide had entered a storm drain line on the property and found its way approximately 300 feet to the outfall where it entered the estuary (Figure 2).

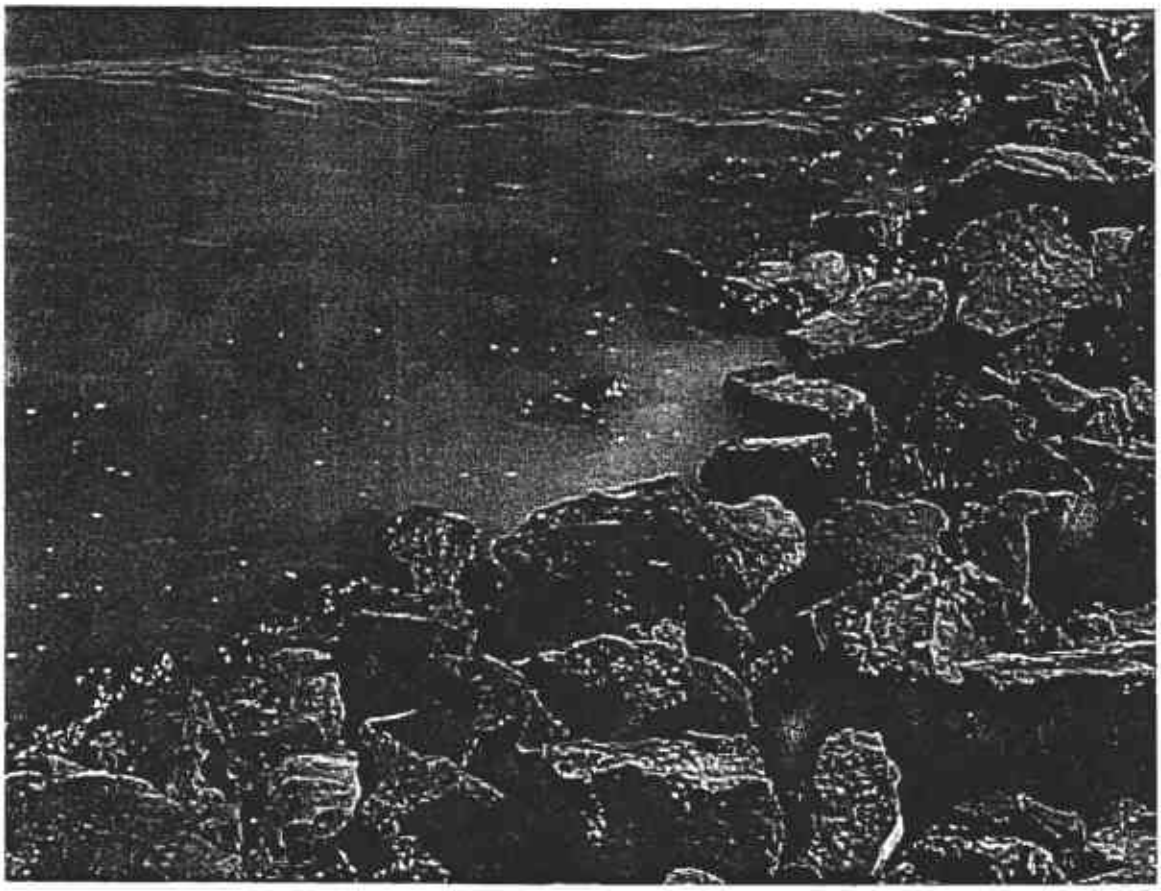


Figure 2

The property on which the spill occurred (Figure 3) is Port owned and leased to the gas plant operator (Alliance Gas Products). Apparently, no structures on the Liquid Carbonic property are owned by the Port.

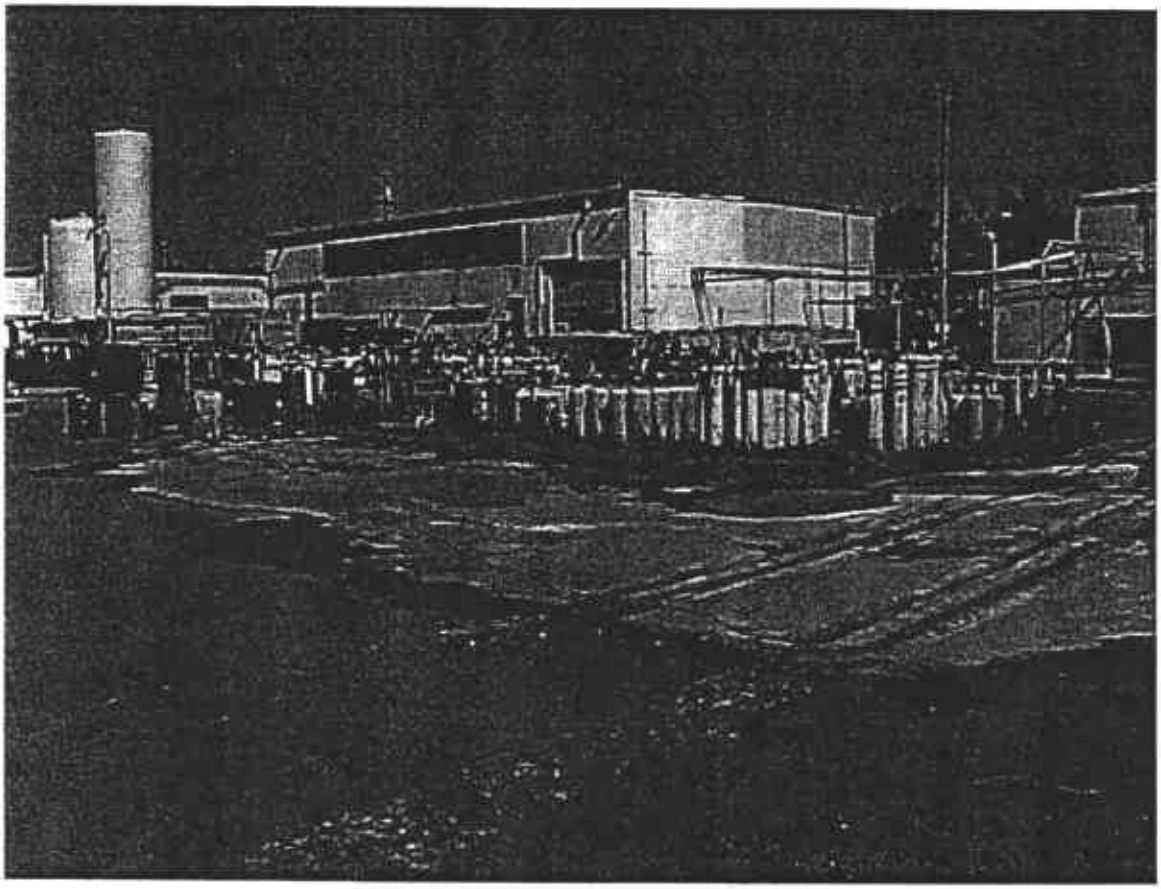


Figure 3

On Friday morning, Morgan Environmental had constructed a temporary catchment stucture (Figure 4) at the outfall and had a vacuum truck ready to suck up material flushed from the storm drain. Cal Fish and Game (Warden Danny Reno, telephone 916-445-0045) was present at the scene. Samples of the sludge, the milky bay water, and biological organisms were obtained. The OFD also has samples of the sludge and water. George Leyva and Rich Hiett of the Regional Water Quality Control were on scene. Leroy Griffin of the Oakland Fire Services Agency (CUPA) was also present.

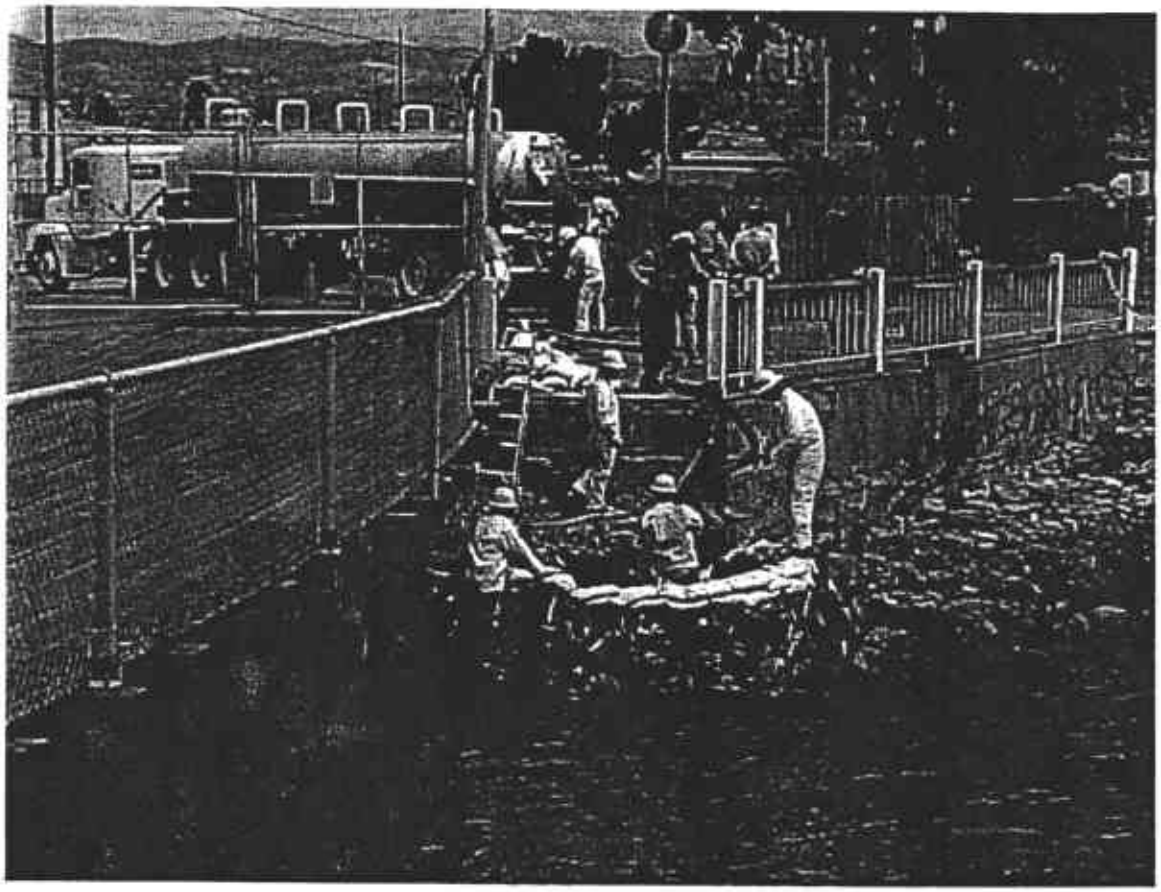


Figure 4

Neil Werner continued to monitor the clean-up as it progressed and he documented the events with photos.

PORT OF OAKLAND
CLEAN WATER PROGRAM
STORM WATER INSPECTION REPORT FORM

Date: 1-26-00

Name, Site Address: Alliance Gas

Contact Name(s): Russell Worthan

Phone Number(s): 663-9353

Business Activity/SIC Code: Manufacture and store gas products.

Property Owner:	Port of Oakland
Port Representative:	Douglas Herman
Phone Number:	510-272-1184
Fax:	510-451-5916
Mailing Address:	530 Water Street, Oakland, CA 94607

- ☐ SWPPP
- ☐ NOI
- ☐ Training Records
- ☐ Monitoring Records
- ☐ Two Contacts

Unknown at this time to comply

As an active member in the Port's Group Monitoring Program, you are required to respond in writing to facility compliance issues listed below within 30 calendar days.

Response Date: 2-26-00

Reinspection Date: Yes/No

- Please test sand blast material for hazardous characteristics
- Please perform additional soil removal to remove film from storm water discharge
- It is unclear whether facility needs to comply with NPDES regulations. Please consult with env. firm.

The Port of Oakland is not providing and does not intend to provide any legal advice or assistance and does not warrant that the information, representations or conclusions set forth herein comply with applicable law, including, but not limited to, the requirements of the Clean Water Act or the General Permit. The Port emphasizes that, with respect to Port tenant facilities or operations, it is the Port tenant's responsibility to comply with all applicable laws, including the CWA and the General Permit.

Print Name of Facility Representative: Russell Worthan

Facility Representative Signature: [signature] Inspectors Signature: [signature]

Distribution: White - Tenant Yellow - Port of Oakland

C:\win\mydocs\stormwat\inspfrm.doc

Problem typed

★ Calcium carbide + H_2O → acetylene gas↑ + H_2O + lime

acetylene gas + calcium chloride → remove H_2O from gas

acetylene gas is mixed with acetone in storage tanks.

#1535

STATEMENT
Oakland Police Department 536-200-1 (6/93) Page 1 of 2

1. Complainant	Offense/Crime	2. Report No.
City of Oakland	25189.5(d) H&S	99 73691

3. Name of Person Giving Statement	Sex/Race/DOB	☐ Complainant ☐ Suspect ☐ Driver ☐ Reporting Person ☒ Witness
Rego, Amy	FA 6-26-47	

4. Residence Address	City/Zip	Phone
1562 Meadowlark	Yuba City	(530) 755-2669

5. Employment (Name, Address, Phone, Occupation, Work Hours, Days Off) or Supplemental Information if Unemployed or Transient
Oyster Reef, 1000 Embarcadero, 1130-2200, 7 days a week

6. Statement Taken By	Serial No.	Date	Time Started - Completed
J. Grant	8215	22 JUL 99	1530-1545

7. Location Where Statement Taken: 1000 Embarcadero | Names, Addresses of Persons Present During Statement

FOR VEHICLE COLLISIONS ONLY

8. License No.	State	Veh. Yr.	Make	Model	Type	Color(s)	Driver License No.	State

9. Registered Owner	Address	City/Zip	Residence/Business Phone
			( )

ADMONITION: You have the right to remain silent. Anything you say can be used against you in a court of law. You have the right to talk to a lawyer and have him present with you while you are being questioned. If you cannot afford a lawyer, one will be appointed to represent you before any questioning if you wish one. Subject's Initials

WAIVER: Do you understand each of these rights I have explained to you? _____ _____

Having these rights in mind, do you wish to talk to us now? _____ _____

Statement:

Today is the 22nd of July 1999 and at about 1:45 pm. I was working at the Oyster Reef Restaurant at 1000 Embarcadero where I'm the manager. At about 1:45 pm I smelled a terrible odor which I have smelled many times before. It smells like the toilet or rotten eggs. I looked outside at the estuary and I saw a white cloudy substance coming from a drainage pipe just to the right (west) of the restaurant. The substance empties into about a fifteen square foot area and then it disperses even more throughout the estuary. The smell is very sulfuric like. This exact same thing happened yesterday on the 21st of July. It also happened for one full week about two weeks ago. This has happened on and off for the last eighteen ~~BIRT~~ years I have been working here. I know its the same material which is dumped because it always smells and looks the same. It is always dumped from the pipe at the Alliance Gas Products on my left.

Signature of Person Giving Statement: Amy Rego Date: 7-22-99

#1535

STATEMENT CONTINUATION
Oakland Police Department 536-200-2 (6/93)

1. Complainant	Offense/Crime	2. Report No.
City of Oakland	25189.5(d) H&S	99 73691

3. Name of Person Giving Statement	Sex/Race/DOB	
Rego, Amy	FA 6-26-47	☐ Complainant ☐ Suspect ☐ Driver ☐ Reporting Person ☒ Witness

STATEMENT:

A lot of times you can only smell the sulfer smell because of high tide it covers the pipe and you don't see the white film. The area which is usually affected is about 15' square feet. ~~This is~~ A.K.R. I called the police at about 2pm to report the spill that I saw. This is a true statement. X Amy Rego

Signature of Person Giving Statement | Date

ALLIANCE GAS PRODUCTS

March 15.2000

Mr. Douglas Herman
Port of Oakland
530 Water Street
Oakland, Ca. 94607

Dear Sir;

This is to respond to your inspection of January 26, 2000. We have reviewed with the State of California Water Resources Board and have determined that under SIC Code 5169 that a NPDES permit is not required.. We have done additional soil removal to remove film from the standing water which you observed in the yard. Lastly, we have tested the shotblast machine dust for hazardous characteristics. We have found that it contains lead at a level which will cause this dust to become hazardous waste. We are in the process of implementing a training and documentation program so that we may collect this dust into appropriate barrels, label them for temporary storage and make appropriate arrangements for proper disposal with an appropriate disposal site. We have no material currently in storage and will not need to dispose of product for at least three months. The initial notification to the EPA of hazardous waste activity has been made so we may obtain a EPA I.D. number. (SEE ATTACHMENTS)

Sincerely,

Russell D. Wortham
General Manager

901 EMBARCADERO EAST • OAKLAND, CALIFORNIA • 94606
PHONE: 510-663-9355 • FAX: 510-663-2895

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