

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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

May 3, 2000
StID # 1222

Mr. Douglas Herman
Port of Oakland
530 Water St.
Oakland CA 94604-2064

**Re: Soil and Groundwater Investigation and Human and Ecological Risk Evaluation,
Crowley Yard II, 321 Embarcadero, Oakland CA 94606**

Dear Mr. Herman:

Our office has received and reviewed the referenced Baseline April 2000 report for Crowley Yard II, 321 Embarcadero. This report describes the results of the over-excavation of former USTs GF-11 and GF-12, the installation of three monitoring wells and provides a human and ecological risk evaluation for the residual soil and groundwater contamination.

The conservative evaluation compared the highest reported contaminant concentrations versus cleanup levels published in the Water Board Orders, 99-045 and 98-072, the SFIA and Catellus orders, respectively. Based upon the similarity in settings of these sites, this is a reasonable approach. Our office agrees that additional groundwater monitoring should be performed to verify the groundwater concentrations immediately down-gradient of the former USTs.

Our office has the following additional comments on this report:

- The Port is still responsible to sample along the piping runs when the building foundations are demolished as planned in the future.
- Although no specific cleanup levels may exist for specific compounds (specific PAHs, TPHmo) some evaluation will be required prior to requesting site closure.
- Be aware that the recommended ecological soil evaluation was omitted in the Ecological Health Screening. Some evaluation of this data will be required prior to requesting site closure.
- Assuming that this site will be developed into a park, the Port shall prepare a health and safety plan for future maintenance or construction workers. The Port shall prepare a soil and groundwater management plan.
- The Port shall provide evidence of filing a deed restriction limiting the future land use of the site, prohibiting the use of groundwater beneath the site and requiring an impervious cap or a clean soil covering over any areas of known shallow soil contamination.

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

Mr. Douglas Herman
321 Embarcadero
StID # 1222
May 3, 2000
Page 2.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C/B. Chan, file

Ms. Y. Nordhav, Baseline , 5900 Hollis St., Suite D, Emeryville, CA 94608

321EmbarcRA

HAZARDOUS WASTE GENERATOR INSPECTION REPORT

STID #: 122 FACILITY NAME: PDD II, 321 Embarcadero PG. OF

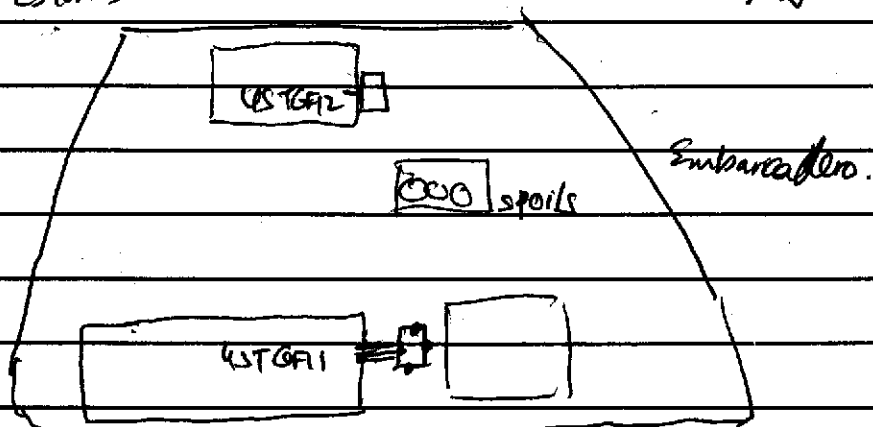
SUPPLEMENTAL FORM

FORMER DIESEL TANKS GF-11 & GF-12 OVER EXC.

BASELINE PRESENT, D. HERMAN-PORT.

ESTIMATED

↑ N



UST GF11 - water present @ ~4.5', spoils placed on UST Queen prior to disposal (A) Soil sples taken from each sidewall (underpinning) -

Analysis for: TEPH, PNA's, BTEX. Piping to be sucked out & capped

UST GF12 - pit overexc to approx 10 x 20 x 8', small cut of water in pit only 1 pipe present leading into pit. 4 soil sples will be taken from sidewalls & analyzed as above.

Will confer w/ consultant (Bach) to see whether discrete or composite samples required.

PRINT NAME:

INSPECTED BY: BChan

SIGNATURE:

DATE: 2-8-00



2-8-00

05918217014-02 1826 1228

overexc. UST GF-11

9N
S



2-8-00

05918217014-02 1826 1230

PDD UST GF12



2-8-00

pipings exposed

05918217014-02 1826 1229

Overexc UST GF11

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9432

November 22, 1999
StID # 1222

Mr. Doug Herman
Port of Oakland
530 Water St., 2nd Floor
Oakland CA 94607

Re: Work Plan for Pacific Dry Dock II, 321 Embarcadero, Oakland CA 94606

Dear Mr. Herman:

This letter serves to respond to your November 15, 1999 letter regarding the proposed investigation and work at the above site, which in turn responded to the County's October 18, 1999 letter regarding the Port's original work plan. Your letter appropriately addresses the County's concern, therefore, you should proceed as soon as possible with the following work:

- The two underground storage tank pits should be over-excavated to remove the reused spoils for proper disposal. At that time, it would be prudent to take confirming soil samples to verify the residual soil contaminant concentrations. In addition, any free product or groundwater with sheen should also be removed from the excavation pits.
- The three monitoring wells, as proposed, should be installed after the over-excavation of the pits. Both soil and groundwater samples will be taken from the well borings for chemical analysis.
- In order to remove residual product from pipelines, you may use a vacuum truck hose (equipped with a stinger) to remove as much product as possible prior to capping the piping. Soil sampling will be done when the piping is removed in the future.

Please provide your schedule for this work and contact our office prior to this activity.

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. Y. Nordhav, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville,
CA, 94608

3PDDIIwp

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

October 18, 1999
StID # 1222

Mr. Doug Herman
Port of Oakland
530 Water St., 2nd Floor
Oakland CA 94607

**Re: Port of Oakland Response Letter for Pacific Dry Dock, Yard II, 321 Embarcadero,
Oakland, CA 94606**

Dear Mr. Herman:

Our office has received and reviewed your October 8, 1999 response letter to my September 16, 1999 letter dealing with the investigation and remediation of the two former diesel underground tanks at the above site. I would like to address your comments as numbered in your response letter.

The piping closure is requested to be postponed until the concrete foundation, where the pipeline is located, is removed. It is assumed that this will be done when the site has been authorized for redevelopment as part of the Estuary Plan. Our office agrees in delaying the removal of the underground piping on the condition that the pipeline locations are determined and that the pipelines are rinsed to remove residual product and capped. Please describe how this will be done. Please add the analysis for semi-volatiles in addition to the proposed suite of analytes for the piping run samples when samples are taken and notify us in advance of this action.

The stockpiled soils from both tank removals are proposed to be left in-place, however, our office again requests their removal based upon the following observations:

- Although the concentration of the stockpiled soils may be less than RWQCB orders for the protection of human health, the protection of **ecological health** has not been considered. Both the residual soil concentration and that of the spoils exceed the clean-up levels recommended in the SFIA and Catellus Water Board orders.
- The grab groundwater sample, which is at least partially the result of groundwater contact with contaminated soil, exhibited 91ppm diesel, greatly exceeding the recommended groundwater cleanup levels in the Water Board orders.
- Because the stockpile soil samples were 4 point composite samples, the reported results could be "diluted" and be much higher in localized areas within the spoils.
- The spoils now likely lie deeper than they did originally and are closer to groundwater. In fact, these soils may be in direct contact with groundwater and are acting as a source of contamination.

Mr. D. Herman
321 Embarcadero, Pacific Dry Dock Yard II
StID # 1222
October 18, 1999
Page 2.

The Port does not propose any additional site characterization because the samples were collected beneath the source (the tank) and are likely the highest concentrations. In addition, the Port states again that the concentrations are less than the RWQCB order threshold concentrations for the protection of human health. You are reminded that protection of ecological health is also required. You are also reminded that risk evaluation is only part of what is required for the investigation of fuel tank releases. The RWQCB requires the following, as part of the evaluation of a low risk soil or groundwater case:

- The leak must be stopped and free product removed
- The site must be adequately characterized
- The dissolved plume must not be migrating
- Surface water or other sensitive receptors must not be impacted, and
- There should be no significant risk to human health or the environment.

Therefore, unless there is data showing the current extent of soil and groundwater contamination, additional site characterization will be required. Please provide a work plan for additional site characterization or data indicating the current limits of soil and groundwater contamination near both former USTs.

Three monitoring wells are proposed for the site. The location of the wells can use the northerly gradient previously determined at the site. Because of the known gradient and the Port's inability to use existing MW-1, one well should be located near MW-1 and one should be located south of UST GF-11. As mentioned in my prior letter, the well adjacent to UST GF-12 is approved, however, it should be installed after the tank pit spoils are removed. Unless the extent of soil and groundwater contamination has been previously determined, both soil and groundwater samples should be sampled in the monitoring well borings.

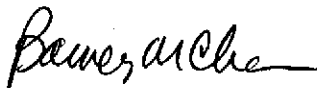
The Port also states that the entire Pacific Dry Dock Yard II site has already been sufficiently characterized and determined not to present an ecological or (human) health risk. The Port has taken this statement out of context. This statement was referring to the non-UST releases identified as being related to operations by the former tenant, Crowley Marine Services (Crowley). Clearly, this was not referring to the underground tank releases of which Crowley and our office had no knowledge of at the time of closure of the non-UST release case. It appears, upon review of past data, that the prior investigation was not extensive enough to characterize the UST release areas.

In regards to your letter dated September 1, 1999 commenting on perceived problems of residual contamination attributed to past Crowley operations, our office has received and reviewed the October 5, 1999 letter from Crowley responding to your claims. Our office does not intend to request any further information or work from Crowley regarding this matter. Our office welcomes your response to their letter.

Mr. D. Herman
321 Embarcadero, Pacific Dry Dock Yard II
StID # 1222
October 18, 1999
Page 3.

Please provide your written response to this letter within 30 days or by November 19, 1999.
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. Y. Nordhav, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville,
CA, 94608

Mr. S. Wilson, Crowley Marine Services, P.O. Box 2287, Seattle, WA 98111-2287
2PDDIwp



CROWLEY MARINE SERVICES, INC. ENVIRONMENTAL PROTECTION

99 OCT -8 PM 2: 55

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

October 5, 1999

RE: Pacific Dry Dock Yard II, 321 Embarcadero, Oakland, CA 94606

Dear Mr. Chan:

We have received a copy of the letter to you dated September 1, 1999 from Douglas Herman at the Port of Oakland. As has happened so frequently in the past, the Port not only misunderstands but also misrepresents the facts associated with Crowley's tenancy at Yard II, and Crowley's legal obligations to the Port. Furthermore, the Port's statements with respect to Crowley's work at Yard II does not accurately reflect the extensive investigation that Crowley undertook at Yard II under your office's supervision.

I will respond to each of Mr. Herman's statements sequentially:

Paragraph 1: Mr. Herman's statement regarding the scope of the risk assessment prepared by Crowley's consultant, Risk Based Decisions, Inc. -- is entirely false! That risk assessment was based on samples taken from targeted areas, which included but were not limited to areas impacted by sand-blast grit, and also on samples taken in areas randomly selected, based on statistical principles, in a sampling program approved in advance by the County. Certainly the risk assessment **was not limited to areas "occupied by sand blast grit . . .,"** and, at best, Mr. Herman's statement to the contrary again does not accurately characterize Crowley's efforts at Yard II. Further, the County agreed with Crowley's proposal to use the random sampling approach along with sampling the targeted areas, and the County agreed with the selection of all sampling points and analytes.

Paragraph 2: I am advised that the document to which Mr. Herman refers, the Estuary Policy Plan, is still in draft form. Even if that "Policy Plan" has now been finalized, the Port's future plans for the property certainly do not obligate Crowley for remediation of the site to cleanup standards for anything other than an industrial site.

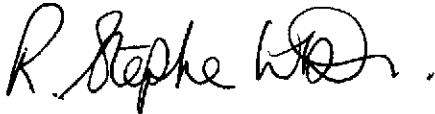
- PCBs were not identified at the site "in an area where supposedly bilge water had been discharged," but between 100 to 200 feet from that area. The fact that the extent of affected soils has not been defined is not Crowley's responsibility. First, Crowley was not the only tenant at the site, and the area described by Mr. Herman consists of fill placed there by a prior tenant. Second, the area where PCBs were discovered has been covered with asphalt since Crowley leased the property. Thus, the presence of PCBs is not attributable to Crowley.
- Mr. Herman asserts that "significant" total recoverable petroleum hydrocarbons have been identified on near surface soils [sic] as well as at depths." It is not clear what Mr. Herman considers to be "significant," especially since he recognizes that it is "unclear" whether these levels would pose a human health or ecological risk. Crowley can appreciate that the Port may want to conduct further characterization of the site due to its ownership of the underground storage tank, but Crowley sees no need for it to do any further work, based on the conclusions of the risk assessment Crowley prepared, the County's approval of that risk assessment, and the fact that the County has certified to Crowley that no further work is required at the site.
- Insofar as Mr. Herman recognizes that the concentrations of copper and lead measured in the monitoring wells would not require remediation, the suggestion that Crowley should conduct fate and transport studies defies credulity.
- Mr. Herman's reference to the Geomatrix Draft Work Plan that indicated the existence of a "plate shop" at Yard II is curious. First, although that Work Plan was submitted to the County, it was never implemented; second, the existence of a "plate shop" has never been concealed from the County or from the Port, Mr. Herman's suggestion to the contrary notwithstanding; and third, the plate shop was where Crowley personnel stored and worked on steel plates for use in the repair of vessels. Chemical activity commonly known as "plating," which can involve the use of cyanide, was never conducted at the site, including at the plate shop. This information has been transmitted to the Port in the past, and should be known to Mr. Herman.

We appreciate all of the time and effort you and other County staff has devoted to this site. Please let me know if I can answer any questions for you arising from this letter.

Letter to Mr. B. Chan
October 5, 1999
Page 3

Finally, Crowley hereby gives notice that it will abandon all monitoring wells at the site, and will promptly begin the application process for the necessary well abandonment permits.

Sincerely

A handwritten signature in black ink, appearing to read "R. Stephen Wilson". The signature is fluid and cursive, with a large initial "R" and a stylized "W".

Stephen Wilson
Manager, Environmental Affairs

cc: PDDII Correspondence
Bruce Love
Beth Hamilton
Douglas Herman
Diane Heinze
Karen Taberski

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

September 16, 1999
StID # 1222

Mr. Douglas Herman
Port of Oakland
530 Water St., 2nd Floor
Oakland CA 94607

Re: Work Plan for Pacific Dry Dock Yard II, USTs GF-11 and GF-12, 321 Embarcadero, Oakland CA 94606

Dear Mr. Herman:

Our office has received and reviewed the September 7, 1999 Baseline work plan referenced above. The work plan follows our meeting where the initial January 1999 work plan by SCA Environmental was replaced with this one, which reflects a risk-based approach for site investigation. Our office would like to first address the requirements of the underground tank removal process then comment on this work plan. To complete the tank removal process, please address the following concerns:

- The underground piping from both underground tanks must be properly closed and appropriate sampling performed. Please provide a work plan, which describes how this will be done.
- The excavated soil samples were returned to the tank pits pending future remediation. Even though over-excavation is not proposed, the spoils should be removed and disposed of properly. Groundwater, if encountered during this removal, should be removed as much as possible, particularly if free product is present.

1) spoils should not
be left in tank
2) cover tank levels
3) groundwater
4) free product

Prior to applying a risk-based approach for these USTs, you should determine if any additional site characterization is necessary. As you are aware, this is required before a risk-based approach may be applied. You are encouraged to review all past work to see if this data already exists. If necessary, please provide a work plan for additional site characterization or show the limits of soil and groundwater impact based on existing data.

Assuming that no additional characterization is shown necessary, our office has the following comments to the risk-based remedial action plan:

- It is appropriate to look at existing Water Board orders for similar sites when determining clean-up levels for this site ie Order No. 99-045 and 98-072. Therefore, as stated in your work plan, although on-site maximum concentrations of TPHd and benzo(a) pyrene in soil exceed the order action levels, they likely do not pose a risk to human health under current site conditions.
- The ecological risk of the UST releases, although lacking true groundwater samples from monitoring wells, may be estimated by existing grab groundwater data. Doing this, there appears potential TPHd and PAH levels above the cleanup levels, in addition to elevated oil and grease concentration without a site specific clean-up level being proposed.

Mr. D. Herman
StID #1222
321 Embarcadero, Pacific Dry Dock Yard II
September 16, 1999
Page 2.

- The work plan proposes the installation of three monitoring wells located down-gradient of the two tank pits. The well adjacent to UST GF-12 is acceptable. Because groundwater is likely tidally influenced and the existence of MW1 near one of the proposed well, I recommend that the northeast well near UST GF-11 be relocated south of the former tank. Groundwater samples will be analyzed for TPHd, TPHmo, cadmium, chromium, lead, nickel and zinc and PAHs (following silica gel clean-up and glass fiber filtering) and aromatic volatile organics. Please take one shallow soil sample from each well borehole for the same chemical analysis mentioned above. Monitoring well MW1 should be included in your sampling and your gradient determination. You may proceed with the well installations if the amendments are acceptable.

Please provide your written response to this letter within 30 days or by October 18, 1999.

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

Sincerely,

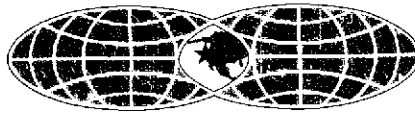


Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Ms. Y. Nordhav, Baseline Environmental Consulting, 5900 Hollis St., Suite D, Emeryville,
CA 94608

PDDIIwp



PORT OF OAKLAND

ENVIRONMENTAL
PROTECTION
AUG 18 PM 2:23

August 17, 1999

RC-123

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Dear Mr. Chan:

It was a pleasure meeting with you on August 12, 1999, to discuss a modified work plan to address subsurface contamination at the former Crowley Yard II site, 321 Embarcadero Road, Oakland. As you know the Port of Oakland submitted to your office a final work plan dated January 27, 1999, for the remediation of petroleum hydrocarbons associated with two former 5,000 gallon underground storage tanks. This work plan proposed over excavation of the tank sites and removal of suspected piping located underneath building foundations. However, after further review by Port staff and outside professionals it was decided that a more "risk driven" remediation plan is more appropriate for this site.

We discussed the Port's proposal, and it was agreed that we will submit for your review a risk based remediation plan within 30 days of our meeting, or by September 13, 1999.

If you have any questions, please contact me at (510) 272-1184.

Sincerely,

Douglas P. Herman
Assistant Port Environmental Scientist

Cc: Neil Werner
Michele Heffes
Bruce Flushman
Yane Nordhav

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

December 4, 1998
StID # 1222

Mr. Doug Herman
Port of Oakland
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

Re: Draft Work Plan for Pacific Dry Dock Yard II, 321 Embarcadero Rd., Oakland CA 94606

Dear Mr. Herman:

Our office has received and reviewed the November 30, 1998 Camp Dresser & McKee Draft Work Plan to address the petroleum hydrocarbon release from the two former underground storage tanks (GF-11 and GF-12) recently removed at the above site. As you are aware, the Port's former tenant, Crowley Maritime, is in the midst of finalizing a Risk Assessment for this site for the non-UST related releases. Their risk assessment does not include any of the recent underground tank data and it should be understood that this UST investigation in the County LOP (Local Oversight Program) is being considered independent of the non-UST (SLIC) release. As such, the work plan will be reviewed as solely a UST issue. In the long run, however, it may be appropriate to evaluate prior groundwater monitoring data to support a closure recommendation for these two underground tank releases. Thus, the request for site characterization, source removal, impact to groundwater and human health and ecological risk assessment is required.

The work plan calls for the over-excavation of each tank pit and the sampling of soil and groundwater. Our office has the following comments and concerns to be addressed:

- Because of the closeness of the Lake Merritt Channel and the Oakland Inner Harbor, soil and groundwater cleanup levels should be protective of human and estuarine life. In the absence of site specific toxicity data, the cleanup levels in the December 11, 1997 SFIA Water Board Order may be used as a starting point. Therefore, the "clean fill" soil concentrations should be replaced with concentrations consistent with the SFIA order. In regards to the semi-volatile levels, industrial PRGs values may be used.
- The main constituents of concern from these tanks appear to be TPHd, TPHmo and semi-volatiles. Therefore, a more appropriate screening tool other than a photoionization detector should be used. Field kits exist which estimate both TPHd and TPHmo would be a better selection.
- **Under Conditions Under Which Excavation May Be Terminated** the work plan states "Soil sample results do not match a typical leaking UST pattern,..." Please clarify what this means.

Mr. Doug Herman
321 Embarcadero
StID #1222
December 4, 1998
Page 2.

- The estimated extent of over-excavation states that the tank pits will be excavated to a depth of 10', however, groundwater may be encountered at a shallower depth. Will saturated soils be excavated or will excavation stop at groundwater? *yes*
- In regards to the proposed sampling, based upon the extent of the proposed excavation one soil sample from each sidewall is appropriate. This assumes that groundwater will be encountered. The sampling for the piping run, which is scheduled for removal, should be sampled at a frequency of one sample per every 20 linear feet. Samples from beneath the joints and elbows should be collected within this frequency if possible.
- In regards to the parameters to be analyzed, only those previously identified in the initial samples require analysis. Although it is unclear whether all the listed parameters in Table 4 of the work plan will be run, please note that if analytical method 8260 is run, method 8021 is not necessary and if method 8270 is run, method 8310 is not necessary.

Please address these items of concern prior to scheduling your field 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
D. Heinze, Port of Oakland
M. Heffes, Port of Oakland
Mr. R. Smith, Camp Dresser & McKee Inc., 1440 Broadway, Suite 400, Oakland CA 94612

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

September 24, 1998
StID # 1222

Port of Oakland Environmental
Ms. Diane Heinz
P.O. Box 2064
Oakland CA 94604-2064

Re: Underground Storage Tank Fuel Release at 321-325 Embarcadero, Former Pacific Dry Dock, Yard II, Oakland CA 94606

Dear Ms. Heinz:

Our office has received and reviewed the September 3, 1998 Tank Closure Report for the Port of Oakland tanks, GF-11 and GF-12 at the above site as prepared by ITSI, your consultant. This report details the removal of two 5,000 gallon underground fuel tanks. They initially were believed to contain gasoline, however, it is now believed that they contained diesel and waste oil. Tank GF-12 was located on the north side of the property between buildings 301 and 302 while tank GF-11 was located on the south side of the property just east of Building 303.

It was evident by observation and confirmed through soil and groundwater sampling that a release of petroleum hydrocarbon had occurred. Mr. Douglas Herman of the Port noted this in a prior letter to our office.

Because of this verified release of petroleum hydrocarbon to soil and groundwater, this site has been transferred to the Local Oversight Program (LOP). As you are aware, there remains an ongoing investigation regarding the non-UST releases at this site which Crowley Marine Services has undertaken. It appears that their investigation and this underground tank investigation can be done independently. As you are aware, our office is still reviewing the submitted reports for the Pacific Dry Dock (PDD) sites I and II for their potential closure recommendation. This situation is similar to the PDD Yard I site where the underground LOP case is being reviewed for closure concurrent with the non-UST release case. Therefore, although our office has not yet made any decisions, it is possible to close the non-UST (SLIC) site while the LOP UST case remains open.

At this time, our office has been informed that these recently removed petroleum USTs from former Yard II are the sole responsibility of the Port of Oakland. Should you disagree with this opinion, please provide evidence and documentation to show otherwise. The recently sent Notice of Responsibility (NOR) letter reflects this assumption.

Our office has looked at the existing data provided by Crowley as it relates to the recent UST removals. It appears that there is insufficient data to fully characterize the fuel releases from Yard II. Because of this, you are requested to provide a work plan to fully characterize the release and determine the extent of the release in soil and groundwater. You may wish to re-examine the existing data to determine if you agree with the County's appraisal.

Ms. D. Heinze
321-325 Embarcadero, Former PDD Yard II
StID # 1222
September 24, 1998
Page 2.

Please provide a work plan and/or a technical report examining existing site data to our office within 30 days or by **October 26, 1998**.

Enclosed please find an ULR form. Please complete and return to our office by **October 2, 1998**.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Enclosure (ULR-Ms. Heinze)

C: B. Chan, files

Mr. S. Wilson, Crowley Marine Services, 2401 Fourth Ave., Seattle, WA 98121
Ms. M. Heffes, Port of Oakland
Mr. D. Herman, Port of Oakland
Mr. D. Pantages, ACEH
Mr. T. Peacock, ACEH
Mr. H. Gomez, City of Oakland, OES, 505 14th St., 7th Floor, Oakland CA 94612

UstPDD2

Facsimile Transmission Face Sheet



City of Oakland



FIRE DEPARTMENT
OFFICE OF EMERGENCY SERVICES

TO: Bamey Chan FAX: 9-23-98

FROM: Tracy Gomez PHONE: 252 7253

NOTES: _____

NO. PAGES INCLUDING THIS: 2 DATE: 9-23-98 TIME: 9:47am

CITY OF OAKLAND
FIRE DEPARTMENT
OFFICE OF EMERGENCY SERVICES DIVISION
505 14th Street, 5th Floor
Oakland, CA 94612

PHONE (510) 238-3938
FAX (510) 238-7761

OAKLAND FIRE SERVICES AGENCY Transfer of Eligible Local Oversight Case

STID _____ Date of input/By: _____

Date: 9/21/98 From: Hernán Gómez

Site Name: 321-325 Crowley Yard II

Address: 321-325 Embarcadero City: Oak. Zip: 02

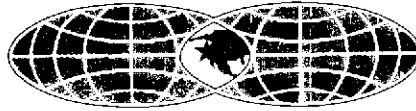
To be eligible for LOP, case must meet 3 qualifications:

- 1. N Tanks Removed? # removed? 2 Date removed: 6/30/98
- 2. N Samples received? Contamination level: >100 ppm
Type of test: SOIL + H2O

Contamination should be over 100 ppm TPH to qualify for LOP

- 3. N Petroleum? Circle Type (s):

Avgas	leaded	fuel oil	jet
diesel	<input checked="" type="radio"/> waste oil	kerosene	solvents



PORT OF OAKLAND

September 11, 1998

Mr. Hernan Gomez
Hazardous Materials Inspector
Office of Emergency Services
505 14th Street, 7th Floor
Oakland, CA 94612

SEP 15 1998 PM 2:47

Mr. Barney Chan
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

September 24

Dear Gentlemen:

Please find enclosed the Tank Closure Report, dated September 3, 1998, for two 5,000 gallon underground storage tanks formerly located at 321-325 Embarcadero, Crowley Yard II, Oakland, CA.

If you have any questions or comments regarding the report, please contact me at (510)272-1184.

Sincerely,

Douglas P. Herman
Assistant Port Environmental Scientist

enclosure: Tank Closure Report, Port of Oakland Tank Numbers GF11, GF12
Pacific Dry Dock, (Crowley Yard II)
325 Embarcadero Street, Oakland, CA

cc: Stephen Wilson (w/enclosure)
Michele Heffes
Diane Heinze
Mark O'Brien (w/o enclosure)
Neil Werner "
Joyce Washington "



PORT OF OAKLAND

July 21, 1998

RE483

Mr. Barney Chan
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Post-it® Fax Note 7671		Date 7/24	# of pages 4
To Barney Chan	From Diane Heine	Co.	
Co./Dept.	Phone #	Phone #	
Fax # 337-07335	Fax #		

Stephen Wilson
Crowley Marine Services, Inc.
2401 Fourth Avenue
P.O. Box 2287
Seattle, Washington 98111

Subject: Request for Supplement to Crowley Risk Assessment and Site Investigation Reports

Dear Mr. Chan and Mr. Wilson:

Enclosed please find a letter addressed to me from Geomatrix Consultants (Geomatrix) regarding the reports recently submitted by Crowley Maritime Corporation (Crowley) to the Alameda County Department of Environmental Health concerning two Port-owned properties (1441 and 321 Embarcadero). The Geomatrix letter expresses concerns that the risk assessments do not contain adequately formatted and organized information that would allow a full and informed evaluation of the reports. Furthermore, the Port understands how busy county oversight agencies are; consequently, the Port has concerns that the insufficiencies of the reports will occupy too much time and not allow an efficient review.

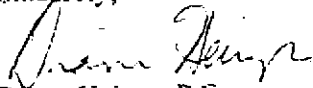
Our concern is heightened because of the recent discovery of additional contamination. Despite past characterization efforts, PCBs and two 5,000 gallon underground storage tanks were recently discovered at 321 Embarcadero.

The Port requests that prior to consideration of these risk assessment reports that Crowley and its consultants be required to supplement the reports with the information detailed in the enclosed Geomatrix letter. In addition, the Port requests that once such supplemental information is received that the county provide the Port with an adequate time to review such material and respond with its comments on the risk assessment. Finally, the Port requests an opportunity to meet with you regarding these sites after submission of the Port's comments to express the Port's position regarding these sites. We believe that these requests will aid rather than inhibit the County's review of the risk assessments.

Mr. Chan and Mr. Wilson
July 21, 1998
Page 2 of 2

If you have any questions, please contact me at 510-272-1467.

Sincerely,



Diane Heinze, P.E.
Associate Environmental Scientist

encl: Geomatrix Letter

cc: Mark O'Brien
Neil Werner
Sally Goodin, Geomatrix
Derek Lee, RWQCB
✓ *Sally Washington*

4721 Tidewater Avenue, Suite C
Oakland, CA 94601
(510) 535-2408 • FAX (510) 535-2445



20 July 1998
Project 3999

PORT OF OAKLAND
ENVIRONMENTAL DIVISION

JUL 21 1998
RECEIVED
ENVIRONMENTAL DIVISION

Ms Diane Heinze
Port of Oakland
530 Water Street
Oakland, California 94607

Dear Ms Heinze:

Geomatrix Consultants, Inc. (Geomatrix), has reviewed on behalf of the Port of Oakland (Port) the following reports: a report by The Gauntlett Group, LLC (the TGG), entitled Supplemental Site Investigation Sampling and Analysis Results, Pacific Dry Dock Yards I and II, Port of Oakland, California; and two reports by Risk Based Decisions, Inc. (RBD), entitled Update to Risk Assessment Report for the Pacific Dry Dock and Repair Company Yard I Site in Oakland, California and Update to Risk Assessment Report for the Former Pacific Dry Dock and Repair Company Yard II Site in Oakland, California.

Our review of these reports has been hampered by the following:

- There are no tables summarizing the proposed scope of work and what was actually performed. Given the complex design of the sampling programs and discussions by Crowley Marine (Crowley) with Alameda County (the County) to which the Port was not a party, it would be appropriate to have a table outlining what had been originally proposed, what modifications were made based on discussions, and what was actually performed.
- There are no analytical data summary tables in the TGG's summary of investigation results. There are data tables in RBD's updated risk assessments, but these tables only include data considered in the risk assessment; preliminary review of these tables indicates that some data included in the laboratory analytical reports attached to the TGG's report are not included or not included accurately.
- RBD's updated risk assessment for Yard I references an additional sampling event on 26 February 1998 for which some data are included on the tables. There are no laboratory analytical reports for these samples in any of the reports.
- RBD's updated risk assessment for Yard I includes figures that show previous and current sampling results; however, the basis for determining which older data correlated with the new "shallow" and "deep" data is not identified.
- There are no figures that illustrate the spatial distribution of the new data for Yard II (except benzene and locally PCBs) or the new data together with the older data.
- The locations of some of the groundwater sampling points and the identity of the duplicate sample are not clear. A table summarizing the groundwater data has not been provided, nor is there any evaluation of the data together with the previous groundwater data and the current and previous soil data.

Geomatrix Consultants, Inc.
Engineers, Geologists, and Environmental Scientists



Ms Diane Heinze
Port of Oakland
20 July 1998
Page 2

- RBD's updated risk assessments are based solely on the newly collected data and do not incorporate or adequately justify the exclusion of the data collected from previous investigations.
- The chemicals included in the risk calculations are in some cases different than the chemicals included in the original risk assessments (i.e., some chemicals included previously are not considered in the updated risk assessments); however, no explanation for these differences is provided. In addition, it is unclear how the metals included in the risk calculations were selected.
- References cited in RBD's reports are not provided.


We believe these matters need to be addressed prior to County consideration of the risk assessments. Unless addressed, we believe there is not a sufficient record on which the County can evaluate the risk assessments.


Until these clarifications are provided, we cannot complete our review of the investigation results or the updated risk assessments. Therefore, we are not able to determine whether performance of the risk assessments at this time was warranted or whether the site conceptual models and chemicals of concern used in the risk assessments were appropriate.

We appreciate the opportunity to work with the Port. If you have questions or need additional information, please contact either of the undersigned.

Sincerely,

GEOMATRIX CONSULTANTS, INC.


Gregory P. Brorby, DABT
Senior Toxicologist


Sally E. Goodin, R.G.
Principal Geologist

GPB/SEG:mdg
INDOC_SAFE3999\3999BULL.DOC



PORT OF OAKLAND

ENVIRONMENTAL
PROTECTION

98 JUL 20 PM 4:15

SLIC.
1222

July 17, 1998

Mr. Hernan E. Gomez
Hazardous Materials Inspector
City of Oakland
Office of Emergency Services
505 14th Street, 7th Floor
Oakland, CA 94612

*need to see data & transfer to top
if warranted, port not Crowley RP.
o can still close SLIC portion quite
o can look @ data to possibly close
top cs.*

Mr. Barney Chan
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd floor
Alameda, CA 94502

**RE: Revised Information for the Port of Oakland's Removal of Tanks GF11 and GF12,
Crowley Maritime Yard II, 321 Embarcadero Road, Oakland**

Dear Mr. Gomez and Mr. Chan:

The following is in response to your request for revised information regarding the Port of Oakland's removal of two underground storage tanks on June 30, 1998, at Crowley Maritime Yard II, 321 Embarcadero Road, Oakland. As previously indicated, the Port has no records that it ever operated these underground tanks, but has nonetheless removed the tanks at the written request of Alameda County. Both the City of Oakland Application for Underground Tank Removal, and State of California Underground Storage Tank Application-Form B, identify tank GF11 as a 400 gallon unleaded and tank GF12 as unknown in size and contents. Following tank removal activities, tank GF11 appeared to be a 5,000 gallon oil product tank for fueling two boilers that were present in the adjacent building, G-303. Tank GF12 appeared to be a 5,000 gallon waste oil tank. Please consider this letter a revision of the Underground Tank Removal Form and find enclosed two revised "Form B's" indicating the size and contents of both tanks.

In addition to the change of information for the documents indicated above, revisions are necessary to the Underground Storage Tank Closure Plan (Plan). Because the tanks were suspected to contain unleaded fuel, the original Plan indicated soil and groundwater samples would be analyzed to detect unleaded fuel contamination. Following removal activities, however, the tanks appeared to contain fuel oil and waste oil, and the analysis was changed to address possible oil contamination. Please find enclosed the laboratory chain of custody form for the soil and water samples collected during tank removal. As you can see the analysis is indicative of suspected waste and oil fuel product contamination.

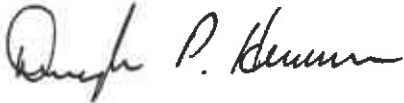
Mr. Hernan E. Gomez
Mr. Barney Chan
July 17, 1998
Page 2.

During tank removal it was evident that the product lines of both tanks had severe corrosion, with holes evident, and product had leaked into the adjacent soil and groundwater. Therefore, I have also enclosed an Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report for your files.

Due to documented contamination discovered during tank removal activities, and the recently received Supplemental Site Investigation Sampling and Analysis Report dated July 6, 1998, prepared by The Gauntlet Group, LLC on behalf of Crowley, the Port requests that the City and County not close this site. The Port is currently reviewing the above-referenced Gauntlet Group report as well as the Updated Risk Assessment Report dated July 6, 1998, and prepared by Risk-Based Decision, Inc. on behalf of Crowley. As soon as these reports have been thoroughly reviewed we will be providing comments to the appropriate regulatory agencies.

The Port of Oakland appreciates your assistance with the oversight of tank removal and review of the changed information indicated herein. If you have any question, please contact me at (510)-272-1184.

Sincerely,



Douglas P. Herman
Assistant Port Environmental Scientist

enclosures:

cc:	Neil Werner, Port	(w/enclosures)
	Michele Heffes, Port	"
	Stephen Wilson, Crowley Maritime	"
	Joyce Washington, Port	"
	Diane Heinze, Port	"
	Karen Taberski, RWQCB	"
	Loretta Barsamian, RWQCB	"

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input checked="" type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

I. TANK DESCRIPTION COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN

A. OWNER'S TANK I. D. # <u>GF 11</u>	B. MANUFACTURED BY: <u>Unknown</u>
C. DATE INSTALLED (MO/DAY/YEAR) <u>Unknown</u>	D. TANK CAPACITY IN GALLONS: <u>5000</u>

II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 4 OIL	B. <input checked="" type="checkbox"/> 1 PRODUCT	C. <input type="checkbox"/> 1a REGULAR UNLEADED	<input type="checkbox"/> 3 DIESEL	<input type="checkbox"/> 6 AVIATION GAS
<input checked="" type="checkbox"/> 2 PETROLEUM	<input type="checkbox"/> 80 EMPTY	<input type="checkbox"/> 2 WASTE	<input type="checkbox"/> 1b PREMIUM UNLEADED	<input type="checkbox"/> 4 GASAHOL	<input type="checkbox"/> 7 METHANOL
<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 95 UNKNOWN		<input type="checkbox"/> 1c MIDGRADE UNLEADED	<input type="checkbox"/> 5 JET FUEL	<input type="checkbox"/> 8 M85
			<input type="checkbox"/> 2 LEADED	<input checked="" type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)	

D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED Fuel Oil C. A. S. #:

III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM	<input type="checkbox"/> 1 DOUBLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER	<input type="checkbox"/> 5 INTERNAL BLADDER SYSTEM	<input type="checkbox"/> 95 UNKNOWN
	<input checked="" type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 4 SINGLE WALL IN A VAULT	<input type="checkbox"/> 99 OTHER	
B. TANK MATERIAL (Primary Tank)	<input checked="" type="checkbox"/> 1 BARE STEEL	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 3 FIBERGLASS	<input type="checkbox"/> 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC
	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input type="checkbox"/> 7 ALUMINUM	<input type="checkbox"/> 8 100% METHANOL COMPATIBLE W/FRP
	<input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 10 GALVANIZED STEEL	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER
C. INTERIOR LINING OR COATING	<input type="checkbox"/> 1 RUBBER LINED	<input type="checkbox"/> 2 ALKYD LINING	<input type="checkbox"/> 3 EPOXY LINING	<input type="checkbox"/> 4 PHENOLIC LINING
	<input type="checkbox"/> 5 GLASS LINING	<input checked="" type="checkbox"/> 6 UNLINED	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER
	IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___			
D. EXTERIOR CORROSION PROTECTION	<input type="checkbox"/> 1 POLYETHYLENE WRAP	<input checked="" type="checkbox"/> 2 COATING	<input type="checkbox"/> 3 VINYL WRAP	<input type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC
	<input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER
E. SPILL AND OVERFILL, etc.	SPILL CONTAINMENT INSTALLED (YEAR) <u>N/A</u>		OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) <u>N/A</u>	
	DROPTUBE YES ___ NO <input checked="" type="checkbox"/>		STRIKER PLATE YES ___ NO <input checked="" type="checkbox"/>	
			DISPENSER CONTAINMENT YES ___ NO <input checked="" type="checkbox"/>	

IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A <input checked="" type="radio"/> 1 SUCTION	A <input type="radio"/> 2 PRESSURE	A <input type="radio"/> 3 GRAVITY	A <input type="radio"/> 4 FLEXIBLE PIPING	A <input type="radio"/> 99 OTHER
B. CONSTRUCTION	A <input checked="" type="radio"/> 1 SINGLE WALL	A <input type="radio"/> 2 DOUBLE WALL	A <input type="radio"/> 3 LINED TRENCH	A <input type="radio"/> 95 UNKNOWN	A <input type="radio"/> 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	A <input checked="" type="radio"/> 1 BARE STEEL	A <input type="radio"/> 2 STAINLESS STEEL	A <input type="radio"/> 3 POLYVINYL CHLORIDE (PVC)	A <input type="radio"/> 4 FIBERGLASS PIPE	
	A <input type="radio"/> 5 ALUMINUM	A <input type="radio"/> 6 CONCRETE	A <input type="radio"/> 7 STEEL W/ COATING	A <input type="radio"/> 8 100% METHANOL COMPATIBLE W/FRP	
	A <input type="radio"/> 9 GALVANIZED STEEL	A <input type="radio"/> 10 CATHODIC PROTECTION	A <input type="radio"/> 95 UNKNOWN	A <input type="radio"/> 99 OTHER	
D. LEAK DETECTION	<input type="checkbox"/> 1 MECHANICAL LINE LEAK DETECTOR	<input checked="" type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 CONTINUOUS INTERSTITIAL MONITORING	<input type="checkbox"/> 4 ELECTRONIC LINE LEAK DETECTOR	<input type="checkbox"/> 5 AUTOMATIC PUMP SHUTDOWN
				<input type="checkbox"/> 99 OTHER	

V. TANK LEAK DETECTION

<input type="checkbox"/> 1 VISUAL CHECK	<input type="checkbox"/> 2 MANUAL INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VADOZE MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING	<input type="checkbox"/> 6 ANNUAL TANK TESTING
<input type="checkbox"/> 7 CONTINUOUS INTERSTITIAL MONITORING	<input type="checkbox"/> 8 SIR	<input type="checkbox"/> 9 WEEKLY MANUAL TANK GAUGING	<input type="checkbox"/> 10 MONTHLY TANK TESTING	<input checked="" type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

VI. TANK CLOSURE INFORMATION (PERMANENT CLOSURE IN-PLACE)

1. ESTIMATED DATE LAST USED (MO/DAY/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING _____ GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input type="checkbox"/> NO <input type="checkbox"/>
---	--	--

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

TANK OWNER'S NAME (PRINTED & SIGNATURE) <u>Neil Warner Neil Warner</u>	DATE <u>7-7-98</u>
---	-----------------------

LOCAL AGENCY USE ONLY THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
PERMIT NUMBER	PERMIT APPROVED BY/DATE		PERMIT EXPIRATION DATE	

THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A, UNLESS A CURRENT FORM A HAS BEEN FILED. FORM C MUST BE COMPLETED FOR INSTALLATIONS. THIS FORM SHOULD BE ACCOMPANIED BY A PLOT PLAN. FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input checked="" type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

I. TANK DESCRIPTION COMPLETE ALL ITEMS - SPECIFY IF UNKNOWN

A. OWNER'S TANK I. D. # GF12	B. MANUFACTURED BY:
C. DATE INSTALLED (MO/DAY/YEAR)	D. TANK CAPACITY IN GALLONS: 5,000

II. TANK CONTENTS IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input type="checkbox"/> 1 MOTOR VEHICLE FUEL <input type="checkbox"/> 2 PETROLEUM <input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 4 OIL <input type="checkbox"/> 80 EMPTY <input type="checkbox"/> 95 UNKNOWN	B. <input type="checkbox"/> 1 PRODUCT <input checked="" type="checkbox"/> 2 WASTE
C. <input type="checkbox"/> 1a REGULAR UNLEADED <input type="checkbox"/> 1b PREMIUM UNLEADED <input type="checkbox"/> 1c MIDGRADE UNLEADED <input type="checkbox"/> 2 LEADED		
<input type="checkbox"/> 3 DIESEL <input type="checkbox"/> 4 GASAHOL <input type="checkbox"/> 5 JET FUEL <input checked="" type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)		
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED Oil		
C. A. S. #:		

III. TANK CONSTRUCTION MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM <input type="checkbox"/> 1 DOUBLE WALL <input checked="" type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER <input type="checkbox"/> 4 SINGLE WALL IN A VAULT	<input type="checkbox"/> 5 INTERNAL BLADDER SYSTEM <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
B. TANK MATERIAL (Primary Tank) <input checked="" type="checkbox"/> 1 BARE STEEL <input type="checkbox"/> 5 CONCRETE <input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 2 STAINLESS STEEL <input type="checkbox"/> 6 POLYVINYL CHLORIDE <input type="checkbox"/> 10 GALVANIZED STEEL	<input type="checkbox"/> 3 FIBERGLASS <input type="checkbox"/> 7 ALUMINUM <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
C. INTERIOR LINING OR COATING <input type="checkbox"/> 1 RUBBER LINED <input type="checkbox"/> 5 GLASS LINED	<input type="checkbox"/> 2 ALKYD LINING <input checked="" type="checkbox"/> 6 UNLINED	<input type="checkbox"/> 3 EPOXY LINING <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___		
D. EXTERIOR CORROSION PROTECTION <input type="checkbox"/> 1 POLYETHYLENE WRAP <input type="checkbox"/> 5 CATHODIC PROTECTION	<input checked="" type="checkbox"/> 2 COATING <input type="checkbox"/> 91 NONE	<input type="checkbox"/> 3 VINYL WRAP <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
E. SPILL AND OVERFILL, etc. SPILL CONTAINMENT INSTALLED (YEAR) N/A OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) N/A DROP TUBE YES ___ NO <input checked="" type="checkbox"/> STRIKER PLATE YES ___ NO <input checked="" type="checkbox"/> DISPENSER CONTAINMENT YES ___ NO <input checked="" type="checkbox"/>		

IV. PIPING INFORMATION CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A <input checked="" type="checkbox"/> 1 SUCTION	A U <input type="checkbox"/> 2 PRESSURE	A U <input type="checkbox"/> 3 GRAVITY	A U <input type="checkbox"/> 4 FLEXIBLE PIPING	A U <input type="checkbox"/> 99 OTHER
B. CONSTRUCTION	A <input checked="" type="checkbox"/> 1 SINGLE WALL	A U <input type="checkbox"/> 2 DOUBLE WALL	A U <input type="checkbox"/> 3 LINED TRENCH	A U <input type="checkbox"/> 95 UNKNOWN	A U <input type="checkbox"/> 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	A <input checked="" type="checkbox"/> 1 BARE STEEL	A U <input type="checkbox"/> 2 STAINLESS STEEL	A U <input type="checkbox"/> 3 POLYVINYL CHLORIDE (PVC)	A U <input type="checkbox"/> 4 FIBERGLASS PIPE	
	A U <input type="checkbox"/> 5 ALUMINUM	A U <input type="checkbox"/> 6 CONCRETE	A U <input type="checkbox"/> 7 STEEL W/ COATING	A U <input type="checkbox"/> 8 100% METHANOL COMPATIBLE W/FRP	
	A U <input type="checkbox"/> 9 GALVANIZED STEEL	A U <input type="checkbox"/> 10 CATHODIC PROTECTION	A U <input type="checkbox"/> 95 UNKNOWN	A U <input type="checkbox"/> 99 OTHER	
D. LEAK DETECTION	<input type="checkbox"/> 1 MECHANICAL LINE LEAK DETECTOR	<input checked="" type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 CONTINUOUS INTERSTITIAL MONITORING	<input type="checkbox"/> 4 ELECTRONIC LINE LEAK DETECTOR	<input type="checkbox"/> 5 AUTOMATIC PUMP SHUTDOWN
					<input type="checkbox"/> 99 OTHER

V. TANK LEAK DETECTION

<input type="checkbox"/> 1 VISUAL CHECK	<input type="checkbox"/> 2 MANUAL INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VADOZE MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING	<input type="checkbox"/> 6 ANNUAL TANK TESTING
<input type="checkbox"/> 7 CONTINUOUS INTERSTITIAL MONITORING	<input type="checkbox"/> 8 SIR	<input type="checkbox"/> 9 WEEKLY MANUAL TANK GAUGING	<input type="checkbox"/> 10 MONTHLY TANK TESTING	<input checked="" type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

VI. TANK CLOSURE INFORMATION (PERMANENT CLOSURE IN-PLACE)

1. ESTIMATED DATE LAST USED (MO/DAY/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING _____ GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input type="checkbox"/> NO <input type="checkbox"/>
---	--	--

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

TANK OWNER'S NAME (PRINTED & SIGNATURE) Neil Werner Neil Werner	DATE 7-7-98
---	-----------------------

LOCAL AGENCY USE ONLY THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
[] [] [] []	[] []	[] [] [] []	[] [] [] [] [] [] [] []	[] [] [] [] [] [] [] []
PERMIT NUMBER	PERMIT APPROVED BY/DATE		PERMIT EXPIRATION DATE	

THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A, UNLESS A CURRENT FORM A HAS BEEN FILED. FORM C MUST BE COMPLETED FOR INSTALLATIONS. THIS FORM SHOULD BE ACCOMPANIED BY A PLOT PLAN. FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

INNOVATIVE TECHNICAL SOLUTIONS, Inc.



1330 Broadway, Suite 1625
Oakland, California 94612
(510) 286-8888 (Tel), (510) 286-8889 (Fax)

PROJECT NAME: Port of Oakland - Crowley Yard II / Pante Drydock
PROJECT NUMBER: 95-113.54
SITE LOCATION: 325 Embarcadero Rd, Oakland CA

DATE: 6/30/94
PAGE: 1 of 1

CHAIN OF CUSTODY

SAMPLE ID.	SAMPLE DEPTH	DATE	TIME	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	SAMPLE MATRIX	ANALYSIS											SPECIAL INSTRUCTIONS/COMMENTS					
							TPH as GaudinTEX - 8015/8020 <i>W/STOVE</i>	TPH as Diesel - 8015	TPH as Diesel - 8015 (w/ Silica Gel Cleanup)	TEPH - 8015	TEPH-8015 (w/ Silica Gel Cleanup)	TRPH - 418.1	Oil and Grease - 5370 <i>Exp/Ref</i>	Purgeable Halocarbons - 601/6020 <i>Hard</i>	VOCs - 624/8240	SVOCs - 625/8270	LUFT Metals (Ca, Cr, Ni, Pb, Zn)		CAM 17 Metals				
Triy Blank	—	Lab Provided		1	Voa	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-A-7'-N	7'	6/30/94	1715	1	Brass Stove	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-A-7'-S	7'		1725	1		S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-B-8'-S	8'		1735	1		S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-B-8'-N	8'		1740	1		S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-SP1-ABCD	~1'		1440	4		S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
S-SP2-ABCD	~1'		1830	4		S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
W-TP-A	—		1600	6	Voa	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
↓	—		↓	5	EA contaminated	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	} Visible Hydrocarbons Present (oil droplets)	
W-TP-B	—		1800	6	Voa	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
↓	—		↓	5	EA contaminated	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
				TOTAL NUMBER OF CONTAINERS	35	TOTAL TESTS	27	8	8	9	8	8	NOT USED (55) 6/30/94										

Curtis & Tompkins
Berkeley, CA

SAMPLED BY: Jim Schollard / ITSI
SIGNATURE: [Signature]

SPECIAL INSTRUCTIONS/COMMENTS: Please Provide Chroms; Standard T.A.T.

RELINQUISHED BY: Jim Schollard / ITSI
Printed Name: ITSI Signature: [Signature]
Company: ITSI Date and Time: 7/1/94 @ 1146

RELINQUISHED BY: _____
Printed Name: _____ Signature: _____
Company: _____ Date and Time: _____

RELINQUISHED BY: _____
Printed Name: _____ Signature: _____
Company: _____ Date and Time: _____

RECEIVED BY: Jose Delgado
Printed Name: Jose Delgado Signature: [Signature]
Company: CEIT Date and Time: 7/1/94 1106

RECEIVED BY: _____
Printed Name: _____ Signature: _____
Company: _____ Date and Time: _____

RECEIVED BY: _____
Printed Name: _____ Signature: _____
Company: _____ Date and Time: _____

SEND RESULTS TO: Jim Schollard / Jeff Hess at ITSI, Walnut Creek; Fax to Jeff Hess

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.		
REPORT DATE 01/07/01 7:00 7:00 9:00 8		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Douglas Herman		PHONE (510) 272-1184		SIGNATURE Douglas P. Herman	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Port of Oakland			
	ADDRESS 530 Water Street Oakland CA 94607					
RESPONSIBLE PARTY	NAME <input checked="" type="checkbox"/> UNKNOWN		CONTACT PERSON		PHONE ()	
	ADDRESS					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Crowley Marine Yard II		OPERATOR Crowley Marine		PHONE ()	
	ADDRESS 321 Embarcadero Rd. Oakland Alameda 94606					
	CROSS STREET 5th Avenue					
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME		CONTACT PERSON		PHONE ()	
	REGIONAL BOARD				PHONE ()	
SUBSTANCES INVOLVED	(1) NAME Fuel Oil				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2) NAME Waste Oil				<input checked="" type="checkbox"/> UNKNOWN	
DISCOVERY/ABATEMENT	DATE DISCOVERED 01/06/01 3:00 9:00 8		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER			
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 01/06/01 3:00 9:00 8					
SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input checked="" type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER			
	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input checked="" type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY					
	CHECK APPROPRIATE ACTION(S) <input checked="" type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> OTHER (OT)					
COMMENTS	_____					

Transfer of Eligible Local Oversight Case

RP 1:

Port of Oakland
Mr. Doug Herman
530 Water St
P.O. Box 2064
Oakland CA 94604-2064

STID 1222 Date of Input/By: 9/23/98 JF

Date: 9/18/98 From: B. Chan

Site Name: Crowley Yard II

Address: 321 Embarcadero City: Oak Zip: 94606

To be eligible for LOP, case must meet 3 qualifications:

1. N Tanks Removed? # of removed? 2 Date removed: 6/30/98
2. N Samples received? Contamination level: 2800 ppm diesel in soil
Type of test TPHd, TPHmo
Contamination should be over 100 ppm TPH to qualify for LOP 91 ppm diesel in water
3. N Petroleum? Circle Type(s): • Avgas • leaded • unleaded • fuel oil • jet
• diesel • waste oil • kerosene • solvents

Procedure to follow should your site meet all the above qualifications:

1. a. Close the deposit refund case.
 - b. Account for ALL time you have spent on the case.
 - c. Turn in account sheet to Leslie.
- If there are funds still remaining it is still better to transfer the case to LOP as the rate for LOP allows more overhead. DO NOT attempt to continue to oversee the site simply because there are funds remaining!

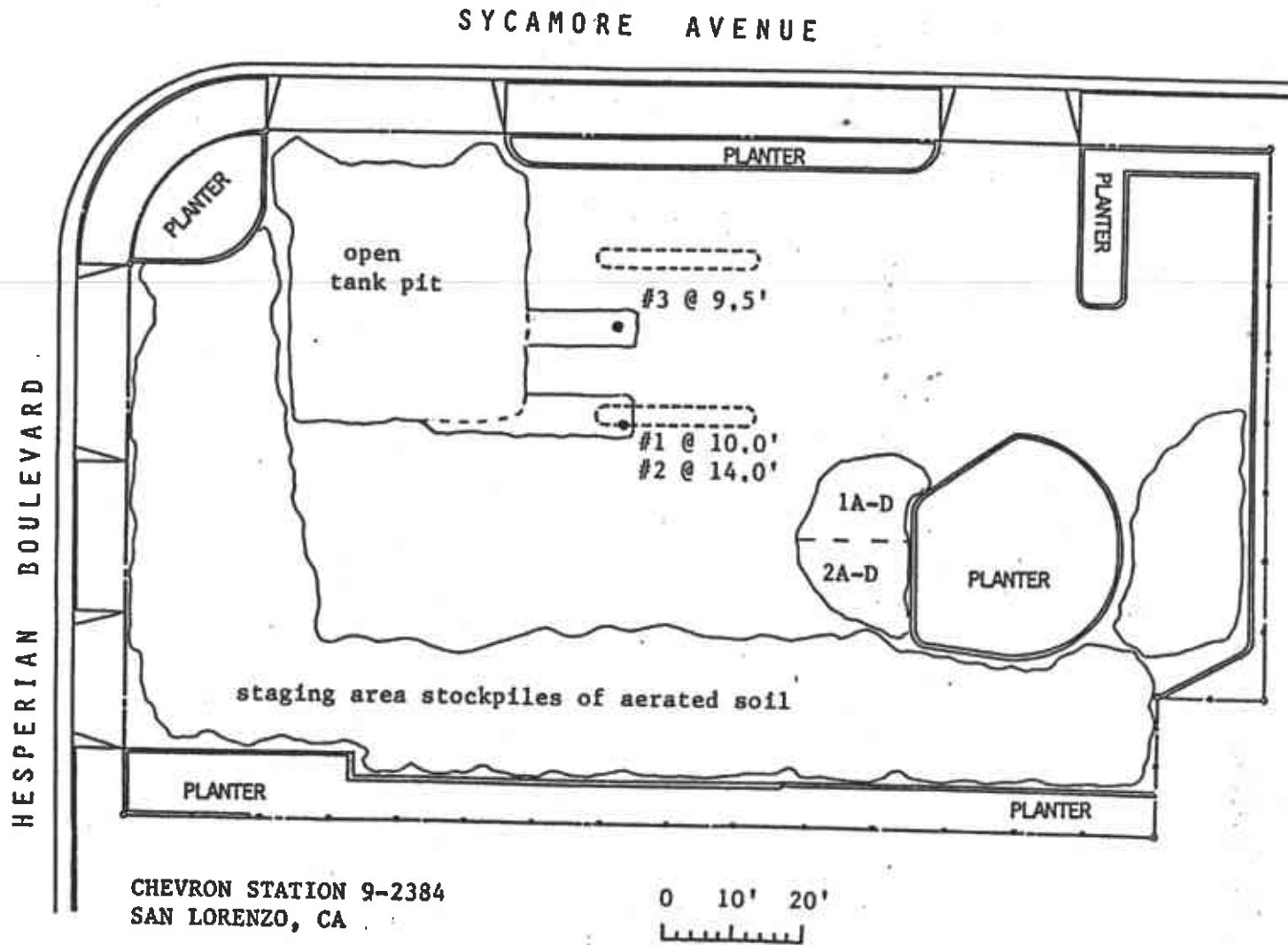
Site obtained from City of Oakland

Remaining DepRef \$'s: _____
DepRef Case Closed with Candyce/Leslie? Y N (If no, explain why below.)

2. Submit the completed A and B permit application forms to NORMA.
3. Give the entire case to the proper LOP staff.

VISIT P

October 16, 1991 / 911016-C-1



R0473

Post-It™ brand fax transmittal memo 7671 # of pages = 5

To	BARNES CHAM	From	KAPRU-LABERSKI
Co.		Co.	CECQCB
Dept.		Phone #	622-2424
Fax #	337-9335	Fax #	

Barnes,

I will mail you a clean

Copy.

Sincerely,
Jan Tabak



Winston H. Hickox
Secretary for
Environmental
Protection

California Regional Water Quality Control Board

San Francisco Bay Regional Water Quality Control Board



Gray Davis
Governor

Internet Address: <http://www.swrcb.ca.gov>
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

TO: Mr. Barney Chan
Alameda County Health Agency
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

File No. 01S0480 (KMT)

FROM: Loretta Barsamian
Executive Officer
San Francisco Bay Regional Water Quality Control Board

Pen Newman for

DATE: April 15, 1999

SUBJECT: DESIGNATION OF CANDIDATE TOXIC HOT SPOT - PACIFIC DRY
DOCK #1 (AREA IN FRONT OF STORM DRAIN)

The purpose of this letter is to respond to the discussion between Alameda County Health Agency, the Port of Oakland and Crowley Marine Services, Inc. regarding the listing of Pacific Dry Dock #1 (area in front of storm drain) as a toxic hot spot under the Bay Protection and Toxic Cleanup Program. One of the main objectives of the Bay Protection and Toxic Cleanup Program (BPTCP) is to identify toxic hot spots in the bays and estuaries of the state and develop cleanup plans for remediation. From 1994 to 1997 the BPTCP conducted screening and confirmation studies to identify toxic hot spots in San Francisco Bay. The results of these studies are reported in Sediment Quality and Biological Effects in San Francisco Bay (Hunt et al., 1998). In October 1997, Regional Board staff issued a proposed Regional Toxic Hot Spot Cleanup Plan based on these results, as well as results from other studies. In this report Pacific Dry Dock Yard #1 was identified as a toxic hot spot. In December 1998, the Regional Board issued a draft final Regional Toxic Hot Spot Cleanup Plan. In this report we tried to provide further clarification by defining this area as the "area in front of storm drain". This report was peer reviewed and released to the public for review. Comments were received and Regional Board staff responded to all comments. On January 27, 1999 the Regional Toxic Hot Spot Cleanup Plan was presented to the Regional Board. In March, a final Regional Toxic Hot Spot Cleanup Plan was submitted to the State Water Resources Control Board for inclusion in the Statewide Consolidated Toxic Hot Spot Cleanup Plan.

Prior to the BPTCP studies, Crowley Marine Services, Inc. conducted several sediment studies. In 1994, PTI Environmental Services conducted a study on a sediment gradient from the area directly in front of Pacific Dry Dock Yard #1 to the area around the stormdrain. This study was conducted in response to a formal request by the Regional Board under Section 13267 of the California Water Code. This study showed increasing toxicity with proximity to the stormdrain. On August 2, 1996 a Cleanup and Abatement Order (CAO No. 96-111) was issued for the area in front of the dry dock for the removal of sandblast grit that had been discharged in violation of an

California Environmental Protection Agency

- 2 -

NPDES permit. This grit seemed to be associated with the metals contamination at the site. The cleanup was completed in December 1997. The Regional Board rescinded the CAO in a letter dated April 22, 1998 (see attached).

Although the area in front of Pacific Dry Dock Yard #1 was cleaned up to the Regional Board's satisfaction, results from the PTI and BPTCP studies revealed another problem associated with the stormdrain near Pacific Dry Dock Yard #1. Both of these studies indicated that the sediment in front of the stormdrain was more toxic than the sediment in front of the dry dock. BPTCP studies indicated that there was no toxicity directly in front of the dry dock facility. BPTCP studies also indicated that the sediment in front of the stormdrain contained high levels of contaminants common in urban runoff. Based on the evidence that: 1) two stormdrains in the Oakland Estuary and San Leandro Bay as a whole (including the mouth of it's tributaries) were identified as toxic hot spots, and 2) fish in this area have significantly higher levels of contaminants identified in a fish advisory for San Francisco Bay than in other areas of the Bay, Regional Board staff considers this an issue to be addressed through watershed management. Staff are viewing this watershed as a high priority for investigations into ongoing sources of contaminants from urban runoff. A study of San Leandro Bay has just been completed by the San Francisco Estuary Institute with the assistance of the Port of Oakland. Regional Board staff views this as an ongoing stormwater problem. We consider the issue involving Crowley's responsibility under it's former NPDES permit resolved.

Attachment: Letter rescinding Cleanup and Abatement Order 96-111

cc: Diane Heinze, Port of Oakland
Stephen Wilson, Crowley Marine Services Inc.
Stephen Hill, RWQCB



Cal/EPA

San Francisco
Bay Regional
Water Quality
Control Board

2101 Webster St #500
Oakland, CA 94612
(510) 286-1255
FAX (510) 286-1380

Stephen Wilson
Manager, Environmental Affairs
Crowley Marine Services, Inc.
P.O. Box 2287
Seattle, WA 98111-2287



Pete Wilson
Governor

Date: APR 22 1999
File Nos. 019174001
019218001 (DCL)

Subject: Rescission of Cleanup and Abatement Order No. 96-111 for the Properties Located at 1441 Embarcadero (Yard I) and 321 Embarcadero (Yard II), Oakland, Alameda County

Dear Mr. Wilson:

This letter rescinds the Cleanup and Abatement Order (CAO) No. 96-111 issued on August 2, 1996.

Crowley Marine Services, Inc. and its predecessors operated a boat and vessel repair business at 1441 Embarcadero (Yard I) from approximately 1911 to 1992, and at 321 Embarcadero (Yard II) from approximately 1951 to 1992. Barnacles, rusts, paint, and other debris were removed from the hulls of the vessels by a high-pressure stream of water or by sandblasting. Most of the sandblast grit and detritus was collected from the railway platform (at Yard I) or the dry dock (at Yard II) that the vessels rested on during cleaning operations. Some grit, however, accumulated in the estuary and the inter-tidal and supra-tidal zones.

In March 1996, Board staff requested that Crowley remove the grit found in the inter-tidal and supra-tidal zones of the sites to (1) assure that storm water flowing over the surface material will not carry constituents of the material into the estuary, and (2) address environmental hygiene issues at the sites. In response, Crowley prepared a Workplan for Removal of Sandblast Grit from the Inter-Tidal and Supra-Tidal Zones at Pacific Dry Dock Yards I and II in June 1996. On August 2, 1996, I issued CAO No. 96-111, incorporating the submitted workplan, just for the removal of loose grit from the inter-tidal and supra-tidal zones.

The removal activities were conducted in March 1997. Approximately 3,585 and 720 tons of grit were removed from Yard I and Yard II, respectively. Using the Soluble Threshold Limit Concentrations test and Toxicity Characteristic Leaching Procedure, the removed grit and debris were classified as nonhazardous waste, with concurrence from the Department of Toxic Substances Control, and were disposed of at an approved landfill during December 1997.

Based on the submitted report, Board staff concur with the scope of work completed and the work is satisfactory in response to CAO No. 96-111. The Order is therefore no longer needed and hereby rescinded. I understand that the Alameda County Department of Environmental

Health is currently supervising soil and groundwater remedial investigations at these sites. Crowley should therefore continue to cooperate in the required investigation/cleanup efforts.

If you have any questions, please contact Derek Lee of my staff at (510) 286-1041.

Sincerely,

Loretta K. Barsamian
Loretta K. Barsamian
Executive Officer

cc.

Diane Heinze
Associate Port Environmental Scientist
530 Water Street, 2nd Floor
Oakland, CA 94607

Barney Chan
ACDEH
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Nicholas Salcedo
BCDC
30 Van Ness Avenue, Suite 2011
San Francisco, CA 94102-6080

Patrick Lacey
Field Services Manager
The Gauntlett Group, LLC
111 West Evelyn Avenue, Suite 305
Sunnyvale, CA 94086



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

January 14, 1998

Mr. R. Stephen Wilson
Crowley Marine Services, Inc.
2401 Fourth St.
Seattle, WA 98111

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

**Ref: Environmental Investigation and Remediation at Pacific Dry Docks Yards I and II,
1441 Embarcadero and 321 Embarcadero, Oakland, CA - 94606**

Dear Mr. Wilson:

Please remit \$4000 for Yard II and \$1000 for Yard I to cover the current negative balance for the projects and for continued oversight of the referenced sites. This deposit is authorized by Alameda County ordinance code section 3-141.6 to cover the expenses incurred by County personnel for their oversight duties. Records are maintained for the time County employees commit to a project and deposit will be debited at the rate of \$94.00 per hour for any time dedicated to your project. Any money remaining in your account at the end of the project will be refunded. Additional monies may be needed if the project exhausts the fund. Please submit a check payable to "Treasurer, County of Alameda" with the words "Site Mitigation" written on the check for proper credit. Also, please make sure to include the complete address of the site for which the deposit-refund account is being established.

If you have any questions, you may reach me at (510) 567-6765

Sincerely,

Barney Chan,
Hazardous Material Specialist

Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



120423

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

December 18, 1997

ATTN: R. Stephen Wilson

Crowley Maritime Plaza
2401 Fourth Ave 11th Floor
Seattle WA 98121

RE: Project # 1226A - Type M
at 321 Embarcadero in Oakland 94606

Dear Property Owner/Designee:

Our records indicate the deposit/refund account for the above project has fallen below the minimum deposit amount. To replenish the account, please submit an additional deposit of \$1,000.00, payable to Alameda County, Environmental Health Services.

It is expected that the amount requested will allow the project to be completed with a zero balance. Otherwise, more money will be requested or any unused monies will be refunded to you or your designee.

The deposit refund mechanism is authorized in Section 6.92.040L of the Alameda County Ordinance Code. Work on this project will be debited at the Ordinance specified rate, currently \$94 per hour.

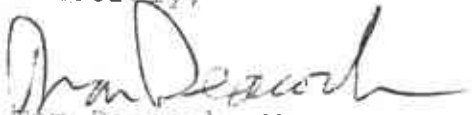
Please be sure to write the following identifying information on your check:

- project #
- type of project and
- site address

(see RE: line above).

If you have any questions, please contact ~~Tom Peacock~~ at (510) 567-6765.

Sincerely,


Tom Peacock, Manager
Environmental Protection

c: files/inspector

2023



PORT OF OAKLAND

December 17, 1997

Mr. John West
California Regional Water Quality
Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

RE: Demolition of Buildings G-301, 302, 303, 305 at Former Crowley Marine Services Site, 321 Embarcadero, Oakland

Dear Mr. West:

Please accept this letter as notification that the Port has received bids from interested contractors for the demolition and removal of all structures at the former Crowley Marine Services (Crowley) Yard II site, 321 Embarcadero, Oakland, CA. (please find enclosed location and site maps). The project also includes the removal of two suspect Underground Storage Tanks (USTs). We estimate that demolition will begin some time in January or February 1998.

Since 1942 the site was used as a ship repair and maintenance facility. The United States Navy leased the property from the City of Oakland and occupied it from 1942 to 1951 and sub-leased the property from 1951 to 1962. Since 1963, the Site has been operated by Crowley. In the late 1980s all commercial activity at the Site ceased. From 1989 to 1997 a series of phased investigation programs were conducted by Crowley at Yard II to determine the extent of soil and groundwater contamination created by the boat repair operation.

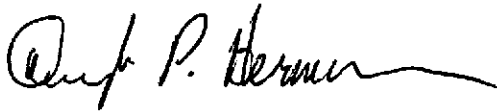
On August 5, 1996 Crowley was issued a Cleanup and Abatement Order from the Regional Water Quality Control Board (RWQCB) to remove inter-tidal sediment contaminated with spent sandblast grit. In March 1997, approximately 500 tons of spent sandblast grit was removed from the inter-tidal zone and after testing, removed from the site.

Questions still surround the remainder of the site and the extent of contamination, and the need for further site characterization. Separate workplans recently submitted by the Port of Oakland and Crowley to Mr. Barney Chan of Alameda County Department of Environmental Health are under review.

Please be aware that during the demolition the building foundations will remain in place. The only excavation proposed is for the removal of the two suspect USTs. Even though the site is less than 5 acres, due to the proximity of the site to the Oakland Estuary a Storm Water Pollution Prevention Plan will be assembled and in place during construction activities.

If you have any questions or concerns regarding the demolition project, please contact me at 510-272-1184. If you have any question regarding the environmental investigations and workplans, please contact Ms. Diane Heinze at 510-272-1467.

Sincerely,



Douglas P. Herman
Assistant Port Environmental Scientist

Enclosures: Figure I, Location Map of Crowley Marine Services Yard II
Figure II, Site Map of Crowley Marine Services Yard II

cc: w/o encl

Mark O'Brien, Port EH&SC
Neil Werner, Port EH&SC
Joyce Washington, Port Commercial Real Estate
Rachel Hess, Port EH&SC
Stephen Wilson, Crowley Marine Services, 2401 Fourth Street, Seattle, WA. 98111
Barney Chan, Department of Environmental Health, 1131 Harbor Bay Parkway, 2nd
Floor, Alameda, CA. 94502
Pam Evans, Department of Environmental Health, 1131 Harbor Bay Parkway, 2nd
Floor, Alameda, CA. 94502
Kim Taylor, California Regional Water Quality Control Board
San Francisco Bay Region, 2101 Webster Street, Suite 500
Oakland, CA 94612



CROWLEY MARINE SERVICES, INC.

ENVIRONMENTAL
PROTECTION

97 NOV 17 AM 8:22

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Way Parkway, #1130
Alameda, CA 94502-6577

November 14, 1997

RE: Former Pacific Dry Dock and Repair Company Yards I & II

Dear Barney:

Under separate cover mailed this date we have transmitted a Workplan for the Further Sampling at Pacific Dry Dock Yards I & II prepared by Crowley Marine Services, Inc. (Crowley) and its consultants. Crowley has been diligently negotiating with the Port of Oakland (Port) and its consultants for the past several months, but we have not been able to reach full agreement as to what additional sampling should be done, or the scientific basis for why such samples should be taken. Thus, the Workplan is not being submitted jointly by the Port and Crowley. It is important to note, however, that Crowley has made extremely significant and substantial concessions with respect to such sampling which are reflected in the Workplan.

Crowley still believes that, consistent with the risk assessments for Pacific Dry Dock Yard I and Yard II, which were submitted previously to your office, no further characterization is needed and the sites, as they stand, do not pose an unacceptable risk to human health or the environment. Notwithstanding its strong belief that no further characterization is necessary at either site, in deference to the Port's concerns, however, Crowley is prepared to conduct further sampling at both sites as described in the enclosed Workplan. In fact, although we have not reached full agreement with the Port as to certain aspects of the work to be done, our Workplan proposes 38 soil samples at each site, where the Port's environmental consultant had originally only requested 30 soil samples.

Notwithstanding our lack of agreement with the Port with respect to all facets of the additional sampling, we believe that the work proposed in Crowley's Workplan should adequately characterize any data gaps which might be perceived and that the approach reflected in this Workplan is supported by good scientific and engineering practices.

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



September 29, 1997
SLIC StID # 1222 & 1420

Mr. R. Stephen Wilson
Crowley Marine Services, Inc.
2401 Fourth St.
Seattle, WA 98111

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

**Re: Environmental Investigation and Remediation at Pacific Dry
Docks Yards I and II, 1441 Embarcadero and 321 Embarcadero,
Oakland CA 94606**

Dear Mr. Wilson:

I have received your request for an extension of our office's September 29, 1997 deadline for the submittal of a mutual work plan for additional site assessment for the above referenced sites. I understand that some progress has been made in the meetings with your consultant and that of the Port of Oakland. I further understand that the Port's consultant has prepared their own individual work plan. Because our office would like to see a work plan with both parties input, we will grant the extension requested, November 15, 1997, on the condition that if the mutual work plan is not submitted by this date, we will request that the Port send their consultant's work plan for review.

In addition, you are again requested to submit a copy of the shoreline soils removal report for both sites and a copy of "Attachment 2" referenced in your May 29, 1997 letter.

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. D. Heinze, Port of Oakland, 530 Water St., P.O. Box 2064,
Oakland CA 94604

Ms. M. Heffes, Port of Oakland, Legal Department, 530 Water
P.O. Box 2064, Oakland CA 94604

Ms. R. Hess, Port of Oakland, P.O. Box 2064, Oakland 94604

Ms. Beth Hamilton, Enea, Piunti & Hamilton, 60 S. Market St.,
Suite 730, San Jose, CA 95113

Mr. I. Jamall, Risk-Based Decisions, Inc., 910 Florin Rd.,
Suite 202, Sacramento, CA 95831

Mr. Steve Moore, RWQCB

3PDDI&II

1997.09-29 10:29
510 337 9335
ALAMEDA CO EHS HAZ-OPS

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



Post-It™ brand fax transmittal memo 7671		# of pages ▶	1
To	Mr. R.S. Wilson	From	B Chan
Co.	Crowley Marine	Co.	AEEH
Dept.		Phone #	510-567-6765
Fax #	206.4438621	Fax #	

September 29, 1997
SLIC StID # 1222 & 1420

Mr. R. Stephen Wilson
Crowley Marine Services, Inc.
2401 Fourth St.
Seattle, WA 98111

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

Re: Environmental Investigation and Remediation at Pacific Dry
Docks Yards I and II, 1441 Embarcadero and 321 Embarcadero,
Oakland CA 94606

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I have received your request for an extension of our office's September 29, 1997 deadline for the submittal of a mutual work plan for additional site assessment for the above referenced sites. I understand that some progress has been made in the meetings with your consultant and that of the Port of Oakland. I further understand that the Port's consultant has prepared their own individual work plan. Because our office would like to see a work plan with both parties input, we will grant the extension requested, November 15, 1997, on the condition that if the mutual work plan is not submitted by this date, we will request that the Port send their consultant's work plan for review.

In addition, you are again requested to submit a copy of the shoreline soils removal report for both sites and a copy of "Attachment 2" referenced in your May 29, 1997 letter.

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

Sincerely,

Barney M. Chan
Barney M. Chan

1997,09-29 10:34
 510 337 9335
 ALAMEDA CO EHS HAZ-OPS

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
100	5104615916	09-29 10:34	00' 33	01/01	OK		

7499402046

ALAMEDA COUNTY
 HEALTH CARE SERVICES

AGENCY
 DAVID J. KEARS, Agency Director



Post-It™ brand fax transmittal memo 7671 # of pages 1

To	R. Hess	From	B Chan
Co.	Port of Oakland	Co.	ACEH
Dept.		Phone #	567-6765
Fax #	451-5916	Fax #	

September 29, 1997
 SLIC StID # 1222 & 1420

Mr. R. Stephen Wilson
 Crowley Marine Services, Inc.
 2401 Fourth St.
 Seattle, WA 98111

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

Re: Environmental Investigation and Remediation at Pacific Dry
 Docks Yards I and II, 1441 Embarcadero and 321 Embarcadero,
 Oakland CA 94606

Dear Mr. Wilson:

I have received your request for an extension of our office's September 29, 1997 deadline for the submittal of a mutual work plan for additional site assessment for the above referenced sites. I understand that some progress has been made in the meetings with your consultant and that of the Port of Oakland. I further understand that the Port's consultant has prepared their own individual work plan. Because our office would like to see a work plan with both parties input, we will grant the extension requested, November 15, 1997, on the condition that if the mutual work plan is not submitted by this date, we will request that the Port send their consultant's work plan for review.

In addition, you are again requested to submit a copy of the shoreline soils removal report for both sites and a copy of "Attachment 2" referenced in your May 29, 1997 letter.

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

Sincerely,

Barney M. Chan

Barney M. Chan

Responsible Manager, Environmental Health Services



CROWLEY MARINE SERVICES, INC.

Mr. Barney Chan
 Alameda County Health Care Services Agency
 Department of Environmental Health
 1131 Harbor Way Parkway, #1130
 Alameda, CA 94502-6577

*meetings
 Geomatrix +
 Aug 19th*

September 26, 1997

Via Facsimile

RE: Former Pacific Dry Dock and Repair Company Yards I & II Sites

Dear Mr. Chan:

The purpose of this letter is to confirm my voice mail messages to you of September 25th and 26th requesting that your office delay commencing the review of the risk assessment reports for the former Pacific Dry Dock and Repair Company Yards I & II Sites, located at 1441 and 321 Embarcadero in Oakland, respectively. A delay until November 15th 1997 is being requested by Crowley due to the factors presented below.

Crowley and the Port of Oakland are continuing to discuss what additional data collection may or may not be necessary to satisfy both parties. Our consultants have met and various documents have been exchanged, but due to workloads it has not been possible to resolve these issues within the September 29th 1997 time frame of your letter to me. As I shall be out of the country from October 1st through October 17th, the technical discussions between Crowley and the Port of Oakland will be on hold until I return. To give Crowley and the Port of Oakland additional time to resolve the issues I request a delay in your review of the risk assessments until November 15th 1997.

I have spoken to Ms. Rachael Hess of the Port of Oakland regarding this matter. The Port of Oakland is concerned that unless the Port receives word from the your office that the September 29th deadline has been extended, the Port would feel compelled to unilaterally submit a work plan, prepared by its consultants, to your office. Therefore to avoid "escalating" this matter any further, I request that you fax your response regarding this extension to both Ms. Hess (510) 451-5916 and me (206) 443-8621 as soon as possible.

I apologize for the lateness of this extension request, but this is due to factors beyond my control, and I appreciate your assistance with this matter.

Sincerely



Stephen Wilson
Manager, Environmental Affairs

cc: PDDI & II Correspondence
Rachael Hess
Ijaz Jamall
Bruce Love Esq.



CROWLEY MARINE SERVICES, Inc.

FAX TRANSMISSION SHEET

To : Mr. Barney Chan

cc:

SLC # 1222 / 1420

Company: Alameda County
Port of Oakland

Fax No.: (510) 337-9335

From : Stephen Wilson

Tel. No.: (206) 443-8042

Fax No.: (206) 443-8621

Date : September 24, 1997

No. of Pages inc. cover: 1

Subj. : Pacific Dry Dock and Repair Company

Barney, Rachael Hess' fax at the Port of Oakland is (510) 451-5916. Sorry for the error.

9/3/97 - w.p. given to Crowley

HARD COPY WILL NOT FOLLOW

This is a confidential communication, in the event that there are problems with transmission, or this fax was incorrectly delivered, please contact Pam McElroy at (206) 443-7879

**CROWLEY MARINE SERVICES, Inc.****FAX TRANSMISSION SHEET****To :** Mr. Barney Chan**cc:****Company:** Alameda County
Port of Oakland**Fax No.:** (510) 337-9335**From :** Stephen Wilson**Tel. No.:** (206) 443-8042**Fax No.:** (206) 443-8621**Date :** September 24, 1997**No. of Pages inc. cover:** 3**Subj. :** Pacific Dry Dock and Repair Company

PLEASE DELIVER THIS FAX TO MR. CHAN AS SOON AS POSSIBLE**HARD COPY WILL NOT FOLLOW**

This is a confidential communication, in the event that there are problems with transmission, or this fax was incorrectly delivered, please contact Pam McElroy at (206) 443-7879

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



August 27, 1997
SLIC StID # 1222 & 1420

Mr. R. Stephen Wilson
Crowley Marine Services, Inc.
2401 Fourth St.
Seattle, WA 98111

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

**Re: Environmental Investigation and Remediation at Pacific Dry
Docks Yards I and II, 1441 Embarcadero and 321 Embarcadero,
Oakland CA 94606**

Dear Mr. Wilson:

Our office has received the Risk Assessment reports for both of the above referenced sites as prepared by Dr. Ijaz Jamall of Risk-Based Decisions, Inc. Prior to reviewing these documents, I verbally requested that you submit a copy of the shoreline soils removal report for both sites. We further request copies of the "Attachment 2" referenced in your May 29, 1997 letter.

You are aware that the Port of Oakland retained the consulting firm, Geomatrix, in order to review the existing data for both sites. Their objective was to determine if sufficient site characterization had been performed prior to completing a risk assessment. Our office was submitted a Geomatrix report detailing extensive additional recommended investigation for both sites. In response to this report, our office has also received your May 29, 1997 letter and the May 28, 1997 Gauntlett Group report which responds to the Geomatrix report, basically stating that no further work is warranted. At this time, our office is in the unfortunate position of determining which recommendation should be taken.

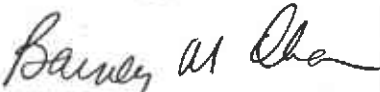
Our office would like the parties to confer and come to a mutually acceptable decision, however, we are prepared to evaluate the information provided ~~as provided~~. Because the Geomatrix report was not specific in its recommended sampling, our office requests a specific supplemental work plan for any additional site investigation. Please provide **within 30 days or by September 29, 1997** either a work plan or notification that no additional work is recommended.

If no additional report is provided, our office will evaluate **both** submitted reports in consideration as to the future requirements for these sites.

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

Mr. R. Stephen Wilson
Pacific Dry Dock Yard I & II
August 27, 1997
Page 2.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files

Ms. D. Heinze, Port of Oakland, 530 Water St., P.O. Box 2064,
Oakland CA 94604

Ms. M. Heffes, Port of Oakland, Legal Department, 530 Water
P.O. Box 2064, Oakland CA 94604

Ms. Beth Hamilton, Enea, Piunti & Hamilton, 60 S. Market St.,
Suite 730, San Jose, CA 95113

Mr. I. Jamall, Risk-Based Decisions, Inc., 910 Florin Rd.,
Suite 202, Sacramento, CA 95831

Mr. Steve Moore, RWQCB
2PDDI&II



CROWLEY MARINE SERVICES, INC.

ROY 23

July 18, 1997

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Way Parkway, #1130
Alameda, CA 94502-6577

RE: Former Pacific Dry Dock and Repair Company Yards I & II Sites

Dear Mr. Chan:

The purpose of this letter is to ask that your office continue to review the regulatory status of the former Pacific Dry Dock and Repair Company Yards I & II Sites, located at 1441 and 321 Embarcadero in Oakland, respectively. As may be noted from the recent submittal of revised data for Yard II and the risk assessment report for Yard I, Crowley Marine Services, Inc. (Crowley) continues to work to obtaining regulatory closure for both these sites.

In a letter to you dated June 19th 1997 the Port of Oakland (the Port) stated that, amongst other things, Crowley and the Port were meeting to discuss and resolve differences regarding the sufficiency of the risk assessment work prepared by Crowley for Yard II and the site investigations performed by Crowley at both Sites. Crowley received this letter on June 23rd and was not advised that the Port intend to send such a letter to your office.

Regardless of the Port's unilateral action, Crowley met with the Port and its consultants on June 24th and reviewed the data from both Sites. As a result of the meeting Crowley and the Port have tentatively outlined an agenda to resolve issues between the Port and Crowley. Crowley's position regarding the adequacy of the investigation and the completeness of the risk assessments, however, is unchanged, and as such Crowley requests that your office continue its review of the sites and determination of the regulatory status.

Letter to Mr. Barney Chan
July 18th 1997
Page 2

I look forward to reviewing our closure requests with your office, and please contact me with any questions or comments that you may have regarding this matter.

Sincerely

A handwritten signature in black ink, appearing to read "Stephen Wilson". The signature is written in a cursive style with a large, looped "S" and "W".

Stephen Wilson
Manager, Environmental Affairs

cc: PDDI & II Correspondence
Diane Heinze
John Wolfenden



PORT OF OAKLAND

May 20, 1997

Ms. Pamela J. Evans
Senior Hazardous Materials Specialist
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Dear Ms. Evans:

This letter follows up on our conversation on May 19, 1997, regarding the removal of the underground storage tanks located at 321 Embarcadero Road, Oakland, former location of Pacific Dry Dock and currently leased to its successor Crowley Marine Services, Inc. The removal of these tanks has been delayed due to the Port's investigation of the tank owners and discussions between the Port and Crowley concerning responsibility for the property. These issues are to date unsettled.

However, to act in a good faith effort with the County, the Port has paid the five year state surcharge and annual fee for the tanks, an amount totaling \$583.00, and issued a work request dated March 10, 1997 for the removal of the tanks. We anticipate the tanks should be removed by November or December 1997. Please be aware that the Port, as the property owner, is only trying to comply with the County's requirements. The Port is not claiming ownership of the tanks. Moreover, the Port did not install or ever operate these tanks.

Sincerely,

Douglas P. Herman
Port of Oakland
Environmental Health
and Safety Compliance

cc: Joyce Washington, CRE
Michele Heffes
Neil Werner, EH&SC
Diane Heinze, EH&SC
Barney Chan, ACHA
Stephen Wilson, Crowley Marine Services, Inc.

C:\win\mydocs\usts\PDD

A30197

P0423

mtg w/ Stephen Wilson & Ijaz Jamal

HRA - May 16, 1997 Yard II 321
end of May Yard I 1441

~~mtg~~ response to Comatrix's report: 6/6/97

Materials @ Yard I covered w/ usqueen
are the shoreline materials.

- RWQB will be satisfied when excavated
material is disposed

S. Wilson: site is adequately characterized + monitored

Ijaz: 1) PNAS in oil contaminated soils not a risk

2) Pb conc based on DTC model allows up
to 3000 ppm @ capped area.

Bury in Madhalla as needed.

- Likely: if Port is satisfied so will County.

- County needs a copy of metals in shoreline removal
report.

- Bobo's {840 ppm Pb} conc allowed in soil amendments

mid June mtg w/ D. Heinze



PORT OF OAKLAND

April 10, 1997

97 APR 11 PM 3:43
ENVIRONMENTAL
PROTECTION

Charles Nalen
Vice President Environment, Safety and Quality Assurance
Crowley Marine Services, Inc.
P.O. Box 2287
Seattle, Washington 98111-2287

Re: 1441 and 321 Embarcadero, Oakland, California (former Crowley Marine Services, Inc./Pacific Dry Dock Yards I and II)

Dear Mr. Nalen:

The Port is in receipt of your letter of March 26, 1997, addressed to Mr. John Aguilar. Mr. Aguilar has left Port employment. I am the Manager of Commercial Real Estate. As you may know, I am familiar with the situation at the former Pacific Dry Dock ("PDD") facilities at 1441 Embarcadero (Yard I) and 321 Embarcadero (Yard II).

In its letter, the Port offered to work with Crowley Marine Services, Inc. ("Crowley") on a cooperative basis to attempt to fashion a resolution of PDD's tenancies at Yards I and II that would leave both parties satisfied they had been dealt with fairly. Based on Crowley's recent letter, it does not appear that this is what Crowley has in mind. Based on that decision, the Port must proceed to protect its interests.

The Port does not agree with the portrayal in the March 26, 1997, letter that the entirety of Crowley's necessary activity at Yards I and II is set forth in the 1992 Environmental Agreements between the Port and Crowley. Crowley must fulfill certain requirements upon lease termination with respect to the condition of both Yard I and II under its leases with the Port and as a matter of law. While Crowley may dispute the extent of that responsibility, its stated position that it has done all it has to do is not a helpful step in resolving the dispute.

Moreover, as you will see in our companion letter to the Alameda County Health Care Services Agency ("ACHCSA") and the Regional Water Quality Control Board ("RWQCB"), the Port believes that Crowley's characterization of both Yards is incomplete and substantial further work is required. Crowley's assertion that agencies had approved Crowley-sponsored work plans is of little moment if those workplans leave significant room for in situ contamination to remain. The Port submits that activities and evidence of activities at Yards I and II raise significant questions not answered by Crowley investigations and characterization attempts nor remediated by Crowley's alleged remedial activities. Consequently, the Port retained the environmental consulting firm, Geomatrix Consultants, Inc. ("Geomatrix") to review work plans and reports submitted by Crowley with respect to both Yards.

Geomatrix reviewed such materials for, among other matters, the sufficiency of the characterization of the activities and potential environmental contamination resulting therefrom. We enclose a summary of the areas where further characterization activities are necessary and the reasons therefor. We note that many of Geomatrix' areas of further investigation are substantially similar to those directed to Crowley by the ACHCSA in its July 15, 1996, letter and reiterated in

the recent ACHCSA Notice of Violation, dated February 21, 1997, regarding Yard II. As described below, the Geomatrix areas of further investigation are intended to further refine what appears to be only a partial and preliminary picture that has resulted from those previous efforts. In all events, such additional work should be completed before a human health risk assessment or an environmental risk assessment would be ready for consideration by the ACHCSA or RWQCB.

In addition, while Crowley has apparently completed one part of a clean-up required by the RWQCB from its decades long operations which contaminated Yards I and II, that does not preclude the Port or others asking whether such efforts were or were not ameliorative or whether further efforts or monitoring should be necessary. Indeed, nearly seven years have passed since Crowley began this process with progress and remedial activities occurring only episodically and then at regulatory instigation. This history strongly argues that a strict timeline should be required. The Port's intention in this regard is reinforced by the recent Notice of Violation sent to Crowley regarding Yard II. That Crowley determined not to comply with regulatory directives is substantial evidence that agreed and strictly enforceable deliverables should be part of any future arrangements with Crowley.

Should Crowley determine to continue on its present course and prepare a risk assessment, an action that the Port believes is, at best premature, the Port advises Crowley that as part of the planning process for the waterfront between the City and Port of Oakland a draft Estuary Plan was recently promulgated. ~~That plan presently calls for the use of Yard II as a public beach.~~ Permitted and proposed activities include human contact uses of the area such as wading, swimming, picnicking and playgrounds. A copy of the draft Estuary Plan is enclosed for your information and use in preparing workplans for further required investigations. In any event, it is reasonable to conclude that any risk assessment proposed must account for this type of intended use.

Another matter that should be mentioned is that to the extent Crowley's settlement discussions with the United States or the United States Navy impact on obligations under the lease, Crowley is required to advise the Port by virtue of lease clauses 6 and 8. Consequently, the Port renews its request for information regarding any settlement or settlement discussions.

Finally, after reviewing this letter, Crowley may determine to reconsider its position as state in its March 26 letter. The Port, subject to the conditions in Mr. Aguilar's letter, remains willing to discuss with Crowley how best to amicably resolve this matter. In the meantime, the Port will continue to act to best protect its and the public's interest.

Very truly yours,



Joyce Washington
Manager,
Commercial Real Estate

Enclosure

Charles Nalen

1441 and 321 Embarcadero, Oakland, California (former Crowley Marine Services, Inc./Pacific Dry Dock Yards I and II)

April 10, 1997

Page 3

Enclosure

cc: Barbara Szudy
David L. Alexander
Michele Heffes
Bruce Flushman
Mark O'Brien
Diane Heinze
Doug Herman
John Wolfenden, RWQCB
Sum Arigala, RWQCB
Barney Chan, ACHCSA

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
DEPOSIT / REFUND ACCOUNT SHEET

OK to bill

printed 03/20/97

SITE INFORMATION

Pacific Dry Dock
321 Embarcadero
Oakland 94606
Site Contact:
Site Phone :

StID: 1222 Site#: 1226
PROJECT#: 1226A
PROJECT TYPE:*** M ***
INSP: Barney Chan
ACCT. SHEET PG #: 5

PROPERTY OWNER INFORMATION

Owner Contact:
Owner Phone :

PAYOR INFORMATION

Crowley Maritime Plaza
P O Box 6287
Seattle WA 98111 # 676
Payor Contact: R. Stephen Wilson
Payor Phone :

Date	Action Taken	Time In	Time Out	Hours Spent/Depstd	Hour Balnce	Money Spent/Depositd	Money Balance
	Rcpt# 740547 Balance from Prev. Page	.....	.....	.....	.....	.....	-42.75
3/20/97	Update billing						
1/3/96	Review 12/1/95 monitoring, gw rep. file review Possible GW issue w/ chlorobenz, Pb, Hg + B			1.0		94	-136.75
7/10/96	Review 6/21/96 QMR			0.4		37.6	-174.35
7/10/96	review reports: 6/13/91, 7/31/95, 9/18/95 6/21/96 amr, prep letter			9.5		235	-409.35
9/19/96	Spw/D. Herman + D. Heinze of Port			0.3		28.2	-437.55
1/24/97	Sp w/ Phil Cox - Versar			0.3		28.2	-465.75
2/21/97	Renew file & rep., write NOV			1.0		94	-559.75

UPON COMPLETION OF PROJECT

PROJ COMPLETED BY : _____ ATTACH: State Forms A, B & C
 Billing Adjustment*
DATE OF COMPLETION : _____ DATE SENT TO BILLING: _____
TOTAL COST OF PROJECT: _____ REFUND AMOUNT: _____ Rev. 7/96

* Billing adjustment forms needed when site is in our UST program.

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
DEPOSIT / REFUND ACCOUNT SHEET

SITE INFORMATION

Pacific Dry Dock
321 Embarcadero
Oakland 94606
Site Contact: -0-
Site Phone : -0-

StID: 1222 Site#: 1226
PROJECT#: 1226A
PROJECT TYPE: M
INSP: Barney Chan
ACCT. SHEET PG #: 4

PROPERTY OWNER INFORMATION

-0-
-0-
-0-
Owner Contact: -0-
Owner Phone : -0-

PAYOR INFORMATION

Crowley Maritime Plaza
P O Box 6287
Seattle WA 98111 #676
Payor Contact: R. Stephen Wilson
Payor Phone : -0-

Date	Action Taken	Time		Hours Spent/Depstd	Hour Balnce	Money	
		In	Out			Spent/ Depositd	Money Balance
	Balance from Prev. Page						-303.75
	Rcpt# 740547						
10/24/94	Deposit of \$1,000.00 @ \$90/hour			+11.11			696.25
6/28/95	Review 6/14/95 report			0.5	✓	45	651.25
6/29/95	" " " +			2.0	✓	180	371.25
	spw/Verson, P. Smith, write letter						
7/18/95	Con w/B Hamilton + S.W. Han +			1.0	*✓	90	281.25
	file review						
7/20/95	Con w/D Schwarzhel - Prot			0.3	✓	27	254.25
8/3/95	Con w/B. Hamilton, set up meeting			0.2	*✓	18	236.25
8/4/95	Review 7/31/95 rep			0.5	✓	45	191.25
8/24/95	Prep + mts w/ R.S. Wilson + B Hamilton			1.0	✓	90	101.25
9/22/95	Review 9/8/95 w/ addendum, sp w/ Phil Cox + write letter					144	-42.75

UPON COMPLETION OF PROJECT

PROJ COMPLETED BY : _____ ATTACH: State Forms A, B & C
 Billing Adjustment*
DATE OF COMPLETION : _____ DATE SENT TO BILLING: _____
TOTAL COST OF PROJECT: _____ REFUND AMOUNT: _____ Rev. 1/93

* Billing adjustment forms needed when site is in our UST program.

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
DEPOSIT / REFUND ACCOUNT SHEET

SITE INFORMATION

Crowley
320 Embarcadero
Oakland 94606
Site Contact:
Site Phone :

StID: 1222	Site#: 1226
PROJECT#: 1226A	
PROJECT TYPE: M	
INSP: PAUL SMITH	
ACCT. SHEET PG #: 3	

PROPERTY OWNER INFORMATION

Owner Contact:
Owner Phone :

CONTRACTOR INFORMATION

Crowley Marine Svcs
P O Box 2287
Seattle WA 98111 #676
Contr. Contact:
Contr. Phone :

Date	Action Taken	Time		Hours Spent/Depstd	Hour Balnce	Money	
		In	Out			Spent/Depositd	Money Balance
	Balance from Prev. Page	.....	.....	.....		.....
	Rcpt# 668826						
10/20/92	Deposit of \$1,000.00 @ \$75/hour			+13.33			-43.75
12/27/93	transfer to Barney Nelson ^{Stepanovitch}			0.5 ✓		37.50	-81.25
5/16/94	Rele repair			1.0 *		75	-156.25
5/17/94	Inte mil, met Langklevide			1.5 *		112.50	-267.75
	Q. Verson						
8/2/94	Write req for addnl dep			0.4 *		36.00	-303.75

UPON COMPLETION OF PROJECT

PROJ COMPLETED BY : _____ ATTACH: State Forms A,B & C
 Billing Adjustment*

DATE OF COMPLETION : _____ DATE SENT TO BILLING: _____

TOTAL COST OF PROJECT: _____ REFUND AMOUNT: _____ Rev. 1/93

* Billing adjustment forms needed when site is in our UST program.

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
 DEBIT / REFUND ACCOUNT SHEET

SITE INFORMATION

Crowley Environmental Services Attn: George Brooks
 320 Embarcadero
 Oakland 94606
 Site Contact:
 Site Phone :

SITE#:	1226
PROJECT#:	1226A
PROJECT TYPE:	M
INSP:	PAUL SMITH
ACCT. SHEET PG #:	2

PROPERTY OWNER INFORMATION

Owner Contact:
 Owner Phone :

CONTRACTOR INFORMATION

Crowley Marine Svcs
 P O Box 2287
 Seattle WA 98111 #676
 Contr. Contact:
 Contr. Phone :

Date	Action Taken	Time		Hours Spent/Depstd	Hour Balnce	Money Spent/Depositd	Money Balance
		In	Out				
	Balance from Prev. Page	.....	.....	.....		.....
10/20/92	Rcpt# U668826 Deposit of \$1,000.00 @ \$71/hour			+14.08			1000.
	negative balance transfer from site 6085					-172.-	828.00
12/11/92	review sed impair study	8:30	12:00		1.5	106.50	721.50
12/14/92	review 1 tel con Stephen Wilson	9:00	9:30		0.5	35.50	686.-
12/17/92	tel con Selina Tam RWQCB	9:45	10:00		0.25	17.75	668.25
12/18/92	tel con Teng Wu RWQCB	1:30	1:45		0.25	17.75	650.50
12/23/92	review sed impair study	1:30	5:00		3.5	248.50	402.-
12/28/92	review	1:30	2:15		0.75	53.25	348.75
12/29/92	review & meet w RWQCB	1:00	4:00		3.0	213.-	135.75
12/21/92	tel con Steven ...	9:00	9:30		0.5	35.50	100.25
12/22/92	review sed impair study	2:15	3:45		1.5	106.50	-6.25
1-20-93	2 billing						
1-29-93	meet w Dan S. part 1 Bnt	1:00	1:30		0.5	37.50	-43.75
1-19-93	2 billing						

PROJECT COMPLETED BY : _____

DATE OF COMPLETION : _____

DATE SENT TO BILLING: _____

TOTAL COST OF PROJECT: _____

REFUND AMOUNT: _____

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
 DEPOSIT / REFUND ACCOUNT SHEET

SITE INFORMATION

Pacific Drydock & Repair Yd
~~1441~~ 0 Embarcadero 324 Embarcadero
 Oakland 94606
 Site Contact: 0-
 Site Phone : -0-

SITE#:	6085
PROJECT#:	6085A
PROJECT TYPE:	M -
INSP:	Barney Chan
ACCT. SHEET PG #:	1

PROPERTY OWNER INFORMATION

-0-
 -0-
 -0-
 Owner Contact: -0-
 Owner Phone : -0-

CONTRACTOR INFORMATION

Versar, Inc
 5330 Primrose Dr. Ste. 228
 Fair Oaks Ca 95628 #521
 Contr. Contact: -0-
 Contr. Phone : -0-

Date	Action Taken	Time		Hours Spent/Depstd	Hour Balnce	Money Spent/Depositd	Money Balance
		In	Out				
	Balance from Prev. Page	.....	.....	.....		.....
09/25/91	Rcpt# U612085 Deposit of \$670.00 @ \$67/hour			+10.			470.-
10/17/91	Review of workplan, letter & conversations w/ Y Lembi			1.5	8.5	100.50	569.50
10/24/91	Phone con w/ Y Lembi			0.5	8.0	33.50	536.00
	Conu. Re.: Removal of UGT			0.5	7.5	33.50	502.50
11/2/91	To Billing						
2/10/92	Invoice to top?			0.5	7.0		
8/3/92	review of letter	10:00	12:30	2.5	5.0	177.50	325.00
8/10/92	review & clean & finish letter	10:00	11:30	1.5	3.5	106.50	218.50
7/31/92	review workplan				0.5	35.50	183.-
8/3/92	review & write letter				2.5	177.5	5.50
8/4/92	" " "				2.5	177.5	-172.-
10-23-92 2 billing							

PROJECT COMPLETED BY : _____

DATE OF COMPLETION : _____

DATE SENT TO BILLING: _____

TOTAL COST OF PROJECT: _____

REFUND AMOUNT: _____



CROWLEY MARINE SERVICES, INC.

97 MAR 19 AM 8:29

row 3

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Way Parkway, #1130
Alameda, CA 94502-6577

March 18, 1997

RE: Pacific Dry Dock Yard II, 321 Embarcadero, Oakland, California

Dear Barney:

I have received your letter dated February 21, 1997. I assure you that I was surprised to receive a "violation notice", especially as this week we have completed the removal of the spent sandblast grit from the inter-tidal and supra-tidal zones at the site as we were ordered to do by the Regional Water Quality Control Board (the Board) in August, 1996. I apologize if you did not receive a copy of the Cleanup and Abatement Order (the Order), as a copy of the Order was transmitted to Mr. Paul Smith of your office by the Board. The site was, in fact, inspected yesterday by Mr. John Wolfenden of the Board.

The Order was preceded in March, 1996, by a letter from the Board stating that "[d]ata from [Crowley's] 1994 study and the 1995-96 Bay Protection and Toxic Cleanup Program screening study indicate that the sediments of the subtidal areas on and near the sites do not represent a significant threat to aquatic life and human health." A copy of that letter was also transmitted to Paul Smith of your agency. For your convenience, I have enclosed a copy of the Order and the March, 1996 letter from the Board.

The other reason for my surprise is that we are now in the process of preparing a baseline human health and aquatic risk assessment on this site, to determine, as you directed in your July, 1996 letter, "whether risk and additional work is necessary at this site." That baseline health risk assessment will address virtually all of the issues you raised in your July 15th 1996 letter. As I indicated in my voice mail message to you we are finalizing some data for this assessment, and should submit this assessment to your office on or before April 16th 1997. I hope that this revised schedule meets your approval.

Letter to Mr. Barney Chan
March 18, 1997
Page 2

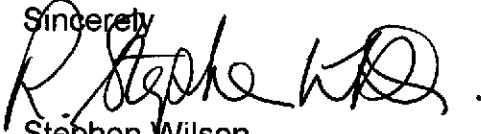
The questions as to whether any of the underground storage tanks existing at the site, which are not and never have been, owned or operated by Crowley, have served as a source of groundwater contamination, should I believe be posed to the Port of Oakland which is the landowner and which leased the property to tenants, including the United States Nave, before the property was leased to Crowley's predecessor. The groundwater and soil investigation already conducted by Crowley has not revealed any evidence to suggest that any of the existing tanks "serve as a source of continuing groundwater contamination."

I would need more details with respect to your comment regarding allegedly "stained" soils, "noticed in several areas on this site." in order to respond adequately. The site is completely covered with asphalt, and I am not aware of such "stained" soils.

After you have had an opportunity to review the risk assessment, I would like to arrange a meeting with you to discuss the site and what further action, if any, you will request. I apologize if a lack of communication on my part, as to Crowley's continuing activity at the site, appeared as if nothing was happening; but as the above information indicates, Crowley continues to work to resolve the outstanding issues at the site.

Also, as Crowley is no longer working with Versar, Inc., I do not believe that it is necessary to continue to send copies of correspondence on this matter to that firm.

Sincerely



Stephen Wilson
Manager, Environmental Affairs

Enclosure: *Letter from California Regional Water Quality Control Board - San Francisco Bay Region to Mr. R. Stephen Wilson, dated March 22nd, 1996*
Letter from California Regional Water Quality Control Board - San Francisco Bay Region to Mr. R. Stephen Wilson, dated August 5th, 1996

cc: PDDII Correspondence
Beth Hamilton w/o enclosure
Diane Heinze w/o enclosure
John Wolfenden w/o enclosure

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380



AUG 05 1996

VIA CERTIFIED MAIL

File Nos. 2199.9174 (SMM)
2199.9218 (SMM)

R. Stephen Wilson
Manager, Environmental Compliance
Crowley Marine Services, Inc.
P.O. Box 2287
Seattle, WA 98111-2287

for

Subject: **Transmittal of Cleanup and Abatement Order for Crowley Marine Services,
Pacific Drydock Yards I and II, Oakland Inner Harbor**

Dear Mr. Wilson:

Transmitted herewith is the Cleanup and Abatement Order and accompanying staff report for the sites located at 321 Embarcadero and 1441 Embarcadero in the City of Oakland. The order was drafted in cooperation with Ms. Beth Hamilton, representing Crowley, and is based on discussions during the meeting of May 24, 1996. Please call Steve Moore, staff engineer, with any questions at (510) 286-1262.

Sincerely,

Loretta K. Barsamian
Loretta K. Barsamian
Executive Officer

cc: Dan Schoenholz, Port of Oakland
Paul Smith, Alameda County
Steve MacAdam, BCDC

96 AUG -7 AM 11:30
ENVIRONMENTAL
PROTECTION



August 2, 1996

Doug Herman
Port of Oakland
530 Water St.
Oakland CA 94607

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

**RE: Abandoned Underground Storage Tanks at
321 Embarcadero, Oakland 94606 (Our site #1222)**

NOTICE OF LEGAL OBLIGATION

Dear Mr. Herman:

Recently we discussed the abandoned underground tanks that remain in place at 321 Embarcadero. This parcel is owned by the Port of Oakland. The former tenant, Crowley Marine Services, has removed the one tank that they claim to have operated at this address. Visual inspections of the site and reports from environmental investigations indicate that at least two tanks remain. No permit to operate these tanks has been submitted to this office.

The UST laws and regulations require that the owner either apply for a permit and properly monitor the tanks for leaks, or properly close the tanks. It is clear that the Port has no intention of operating these tanks. So, **by August 23, 1996** you must submit completed "A" and "B" tank information forms (enclosed) and submit a written plan for closure of the tank (forms and additional information enclosed).

You may contact me at (510)567-6770 with any questions regarding the UST closure permit processes.

Sincerely,

Pamela J. Evans
Senior Hazardous Materials Specialist

Enclosures

c: Gordon Coleman, ACDEH
Don Atkinson-Adams, ACDEH
Barney Chan, ACDEH

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF REPORT

To: Loretta K. Barsamian
Executive Officer
Date: July 15, 1996
File Nos. 2199.9174 (SMM)
2199.9218 (SMM)

From: *John D. Wolfenden* FOR
Steven M. Moore
Associate Engineer

Subject: Crowley Marine Services, Pacific Drydock Yards I and II, Cleanup and Abatement Order

Pacific Drydock Yards I and II are located at 1441 Embarcadero and 321 Embarcadero, respectively, along the east side of Oakland Inner Harbor on property owned by the Port of Oakland. Crowley Marine Services (Crowley) and its predecessors performed vessel maintenance activities at Yard I from 1911 until 1992, and at Yard II from approximately 1951 until 1992. Before 1951, the United States Navy operated a marine terminal at Yard II. Vessel maintenance activities have ceased at both sites; the drydock at Yard II was removed in 1993 and the marine railways at Yard I are in a state of disrepair.

Sandblast grit was used by the tenants at both Yard I and Yard II as part of the tenants' vessel maintenance activities. Wastewater and stormwater discharges resulting from activities at the sites were permitted under two separate NPDES permits, which both expired in March 1996. During site inspections in 1987, 1988, and 1990, Board staff observed and documented evidence of storm runoff washing spent sandblast grit into waters of the State. Regional Board files contain notices of violation that were sent to Crowley at these times. The specific violations were related to discharge prohibitions and receiving water limitations in the permits.

In response to being notified of these violations, Crowley initiated environmental investigations to determine whether the discharges were a threat to human health or aquatic life. In 1990 and 1991, Crowley conducted an investigation at both yards which included collection of seawater and sediment samples (1990) and collection of surface sediment, sediment cores, and seawater samples (1991). Crowley concluded on the basis of those studies that seawater close to the two yards was not adversely affected by underlying sediments containing spent sandblast grit or other substances.

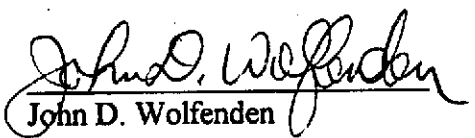
At the request of the Regional Board, in 1993 Crowley designed, and in 1994 implemented, a Supplemental Inshore Sediment Impairment Study. The purpose of that Study was to determine whether elevated concentrations of chemicals or sandblast material in the sediments were of biological concern. Crowley reported in June, 1994 that based on the results of the Study, no

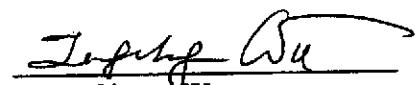
active remedial action was warranted at Yard I or Yard II. Board staff responded that the toxicity data did not rule out the possibility of environmental impairment at the sites. As part of the 1995-96 Bay Protection and Toxic Cleanup Program screening study, Board staff performed sediment toxicity bioassays on sediments at the two sites, and did not observe significant toxicity in the context of multiple bioassays performed throughout the San Francisco Estuary.

In March 1996 the Executive Officer acknowledged that "data from [Crowley's] 1994 study and the 1995-96 Bay Protection and Toxic Cleanup Program screening study indicate that the sediments of the subtidal areas on and near the sites do not represent a significant threat to aquatic life and human health." Notwithstanding the Regional Board's determination that the sediments in the subtidal areas do not represent a significant threat to aquatic life or human health, Regional Board staff has requested that the spent sandblast grit located on the surface in the inter-tidal and sub-tidal zones be removed (1) to assure that storm water flowing over that surface material will not carry constituents of the material into the estuary, and (2) to address past permit violations related to environmental hygiene.

Crowley has responded cooperatively to the request of Board staff by presenting a workplan that addresses cleanup of grit materials in visible portions of the upland, inter-tidal and sub-tidal zones on the two sites. This workplan has been incorporated into a Cleanup and Abatement Order to ensure completion of the tasks. Board staff believe that implementation of the workplan will adequately address past permit violations, and will qualify Crowley to withdraw its Notice of Intent (NOI) to comply with the Statewide General NPDES Stormwater Permit for Industrial Activities. Such withdrawal will be based on the fact that the facilities are no longer operational, and the source for any potential impact from stormwater will have been removed.

Concur:


John D. Wolfenden
Section Leader


Teng-Chung Wu
Division Chief

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CLEANUP AND ABATEMENT ORDER NO. 96- 111

FOR CROWLEY MARINE SERVICES, INC.

for the property located at

**1441 Embarcadero (Yard I) and
321 Embarcadero (Yard II)
Oakland, California
Alameda County**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the "Board"), finds that:

SITE DESCRIPTION

1. Spent sandblast grit (Grit) is present in the inter-tidal¹ and supra-tidal² zones on the property at 1441 Embarcadero (Yard I) and at 321 Embarcadero (Yard II) in the City of Oakland in Alameda County (collectively the "Sites"). Crowley Marine Services, Inc. (Crowley) is the lessee of the property at Yard I and Yard II which is owned by the Port of Oakland and is located at the Port of Oakland.
2. Crowley is named in this Order as a discharger at Yards I and II because Crowley and its predecessors operated a boat and vessel repair business at Yard I since the early 1900s, and at Yard II since approximately 1951. Other tenants, including the United States of America, operated similar businesses at Yard II prior to 1951. The primary activity at both yards was the repair and renovation of boats and sea-going vessels. Barnacles, rust, paint, and other debris were removed from the hulls of these vessels by a high-pressure stream of water or by sandblasting. Most of the Grit and detritus was collected from the railway platform (at Yard I) or the dry dock (at Yard II) that the vessels rested on during cleaning operations. Some Grit accumulated, however, in the estuary and in the inter-tidal zone.
3. The discharge of Grit into the estuary was a violation of the NPDES permits for the two Sites, which both expired in March 1996. Board staff documented the violations during

¹ The inter-tidal zone is defined as the area between the mean low-water mark and the mean high water mark.

² The supra-tidal zone is the area immediately landside of the inter-tidal zone.

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July 25, 1996

inspections in 1987, 1988, and 1990. In response to being notified of these violations, Crowley initiated environmental investigations, noted under Findings 8 and 9, below.

4. The Sites are located at the Port of Oakland, and the land in the vicinity of the Sites is devoted to Port uses.

Specifically, Yard I consists of 6.56 acres of shoreline property bounded by the Brooklyn Basin on the southwest, the Embarcadero on the northeast, and other industrial property on the southeast and the northwest. Yard I has been vacant since 1992 when Crowley ceased operations at the Site.

Yard II consists of 8.296 acres of shoreline property bounded by the Embarcadero on the north, the Lake Merritt Channel on the west, the Oakland Inner Harbor on the south, and other industrial property on the east. Yard II has been vacant since 1993 when Crowley ceased operations at the Site.

5. This Order relates only to removal of the loose Grit from the inter-tidal zone and the supra-tidal zone at the Sites, and does not relate to any soil and/or groundwater contamination that may be present at the Sites. The Alameda County Health Care Service Agency is currently supervising Crowley's efforts to investigate if such soil and groundwater contamination is present at the Sites.

SITE GEOLOGY

6. The Sites are located in the Coast Ranges geomorphic province, between the Hayward Fault (to the east) and the San Andreas Fault (to the west). The underlying bedrock consists of Mesozoic volcanic and metavolcanic rocks similar to those found throughout the Coast Ranges. Overlying the bedrock are Quaternary marine and nonmarine alluvial sediments consisting of clays and silts. The Sites are nearly level at elevations between five and eight feet above mean seal level (National Geodetic Vertical Datum of 1929). The shallow soils have been characterized as gravel, sand, silt, and clay fill material extending from the surface to the bay muds. The depth of bay muds is between 7 and 15 feet below ground surface (bgs). The bay muds consist of silty clays, clays with shell fragments, and thin water-saturated layers of sands or gravels.

SITE HYDROGEOLOGY

7. Groundwater occurs beneath the Sites at depths ranging from approximately two to five feet bgs. Because the Sites are on the waterfront, the depth and movement at groundwater is expected to be tidally influenced.

SITE INVESTIGATIONS OF SEDIMENTS CONTAINING SPENT SANDBLAST GRIT

8. In 1990 and 1991, Crowley conducted an investigation at both yards which included collection of seawater and sediment samples (1990) and collection of surface sediment, sediment cores, and seawater samples (1991). Crowley concluded on the basis of those studies that seawater close to the two yards was not adversely affected by underlying sediments containing Grit or other substances.
9. At the request of the Regional Board, in 1993 Crowley designed, and in 1994 implemented, a Supplemental Inshore Sediment Impairment Study. The purpose of that Study was to determine whether elevated concentrations of chemicals or sandblast material in the sediments were of biological concern. Crowley reported in June 1994 that based on the results of the Study, no active remedial action was warranted at Yard I or Yard II.
10. In March 1996 the Executive Officer acknowledged that "data from [Crowley's] 1994 study and the 1995-96 Bay Protection and Toxic Cleanup Program screening study indicate that the sediments of the subtidal areas on and near the Sites do not represent a significant threat to aquatic life and human health."
11. Notwithstanding the Regional Board's determination that the sediments in the subtidal areas do not represent a significant threat to aquatic life or human health, Regional Board staff has requested that the Grit located on the surface in the inter-tidal and sub-tidal zones be removed, (1) to assure that storm water flowing over that surface material will not carry constituents of the material into the estuary, and (2) to address past permit violations related to environmental hygiene.

INTERIM REMEDIAL ACTIONS

12. In 1995, at the Regional Board staff's request, Crowley vacuumed and swept the two Sites, removing approximately 80 tons of Grit.

FINAL REMEDIATION PLAN

13. In response to Regional Board staff's direction, Crowley has submitted a Workplan for Removal of Spent Sandblast Grit from the Inter-tidal and Supra-tidal Zones at Pacific Dry Dock Yards I and II, a copy of which is attached as Appendix A.
14. Regional Board staff has reviewed and approved the proposal described in the Workplan.

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July 25, 1996

BASIN PLAN

15. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.
16. The existing and potential beneficial uses of the groundwater underlying and adjacent to the property include:
 - a. Industrial process water supply
 - b. Industrial service supply
 - c. Municipal and domestic supply
 - d. Agricultural supply
17. The existing and potential beneficial uses of Oakland Inner Harbor include:
 - a. Ocean, commercial, and sport fishing
 - b. Estuarine habitat
 - c. Industrial service supply
 - d. Fish migration
 - e. Navigation
 - f. Preservation of rare and endangered species
 - g. Water contact recreation
 - h. Non-contact water recreation
 - i. Shellfish harvesting
 - j. Wildlife habitat

CEQA

18. The Discharger has caused or permitted, and threatened to cause or permit, waste to be discharged or deposited where it is or probably will be discharged to waters of the State and create or threaten to create a condition of pollution or nuisance.
19. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

Draft Order 96-
July 25, 1996

NOTICE

20. Pursuant to Section 13304 of the Water Code, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of waste in a manner which will significantly degrade water quality or adversely affect beneficial uses of the Waters of the State is prohibited.

B. CORRECTIVE MEASURES

1. Discharger shall demolish and remove the improvements located at Yard I, in order that the loose Grit located in the inter-tidal and supra-tidal zones are accessible to Discharger for removal.

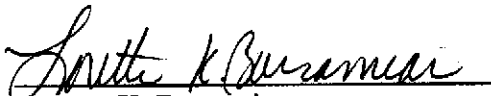
C. PROVISIONS

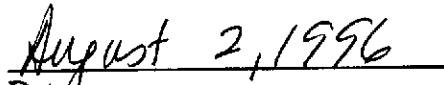
1. Discharger shall implement the remedial measures described in the Workplan, Appendix A, consistent with the schedule stated therein.
2. If Discharger is delayed, interrupted or prevented from meeting one or more of the completion dates set forth in the Workplan schedule, and specified in the Order, Discharger shall immediately notify the Executive Officer, in writing, of such delays.
3. When Discharger has completed implementation of the Workplan, Discharger shall submit a Technical Report, acceptable to the Executive Officer, describing the remedial measures taken. This technical report shall be submitted six months after all required permits are obtained. Discharger shall inform the Executive Officer when all required permits have been obtained.
4. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order shall be provided

Draft Order 96-
July 25, 1996

to the following agencies:

- a. The Port of Oakland
 - b. The Bay Conservation and Development Commission
 - c. Alameda County Health Care Service Agency
 - d. Regional Water Quality Control Board, Attn: Steven M. Moore
5. The Discharger shall permit the Board or its authorized representative, in accordance with section 13267 of the California Water Code entry upon Discharger's premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.


Loretta K. Barsamian
Executive Officer


Date

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY



DAVID J. KEARS, Agency Director

July 15, 1996
SLIC ID # 1222

Mr. R. Stephen Wilson
Manager, Environmental Compliance
Crowley Maritime Services, Inc.
P. O. Box 2287
Seattle, WA 98111-2287

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

**Re: Status of Investigation at Pacific Dry Dock, Yard II,
321 Embarcadero, Oakland 94606**

Dear Mr. Wilson:

This letter serves to reply to your cover letter dated July 2, 1996 wherein you stated you would welcome the opportunity to meet to discuss what additional work, if any, would be necessary to lead the above referenced site to closure.

Following our office's review of the file for this site, I have the following concerns which should be addressed prior to considering closure:

1. The subject of the sediments in the estuarine portion of Yards I & II still must be addressed, even though our office is not the lead agency. Concurrent to any request for site closure, you should also be contacting the Surface Water Division of the Regional Water Quality Control Board (RWQCB) to determine what additional work they will require. At a minimum, specific cleanup levels for the metals: mercury, copper, lead and zinc were given by the RWQCB for the sediments. Please keep our office aware of your progress in the remediation of the shoreline soils. Site closure should be for both the onsite and estuarine portions.
2. The subject of underground tanks has been previously discussed with you whereby all existing tanks were claimed to be the responsibility of the Port of Oakland. Even if this is the case, you should determine if any of the existing tanks serve as a source of continuing groundwater contamination.
3. Based on the continuing presence of total petroleum as diesel and chlorinated solvents detected in groundwater monitoring wells, please consider the need to determine the extent of groundwater contamination.
4. As an estimate of groundwater impact to Lake Merritt Channel, the levels of contamination being detected in MW4 should be evaluated as to its potential risk to estuarine life. Although temporary groundwater sampling points were installed at this site, the true impact to surface water may require a permanent

Mr. R. Stephen Wilson
321 Embarcadero, Pacific Dry Dock Yard II
SLIC # 1222
July 15, 1996
Page 2.

monitoring well. Please comment on the need to install additional wells.

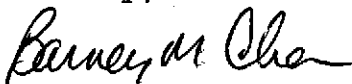
5. Please have PNA's (polynuclear aromatics) run on the next sampling of MW4 due to the presence of TPHd and motor oil in this well.

6. Stained soils have been noticed in several areas on this site, please address the remediation of these areas.

7. A baseline human health and aquatic risk assessment should be performed on this site. This will determine whether risk and additional work is necessary at this site.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: Mr. P. Graff, Versar, 7844 Madison Ave., 167 Fair Oaks, CA
95628
Mr. D. Heinze, Port of Oakland, 530 Water St., Oakland,
94607
Mr. S. Moore, RWQCB, Surface Water Protection Division
G. Coleman, files
RA321Em

4/23/96

PE

465-2533

Robin Bartoo - has been affected - has lived + worked downwind for past 23 years

Ripping up the pier has caused alot of particulates to be released at Pacific Dry Dock.

Its been chopped up, its being loaded in trucks + taken away.

Pacific Dry Dock - 321 Embarcadero

Yesterday they were using a ^{street} sweeper, which stirred up dust

BARRA MD - Simon Wiener - responded

Last week he ^(Robin Bartoo) had a reaction to the particulates (didn't go to doctor) feels better now

Crowley → Doing an investigation

Barney - can you please put this in your file for 321 Embarcadero?

Thanks

from ROU23

ENVIRONMENTAL
PROTECTION
96 APR 19 PM 2:02

LAW OFFICES OF
ENE, PIUNTI & HAMILTON
A PROFESSIONAL CORPORATION

60 SOUTH MARKET STREET, SUITE 730
SAN JOSE, CALIFORNIA 95113
TELEPHONE (408) 271-4800
FACSIMILE (408) 271-4808

BETH L. HAMILTON

DIRECT TELEPHONE
(408) 271-4814

DIRECT FACSIMILE
(408) 292-3376

April 18, 1996

Mr. Barney Chan
Alameda County Health Care Service Agency
Department of Environmental Health
1131 Harbor Bay Parkway, No. 260
Alameda, California 94502-6577

Re: Groundwater Monitoring Report for the former Pacific Dry Dock and Repair
Company Yard II Facility, Oakland, California

Dear Mr. Chan:

Stephen Wilson of Crowley Marine Services, Inc. is out of the office for a few weeks on vacation. In his absence, he has asked that I forward to you a copy of the most recent groundwater monitoring report for the above referenced property at 321 Embarcadero in Oakland, California.

Please let me or Mr. Wilson know if you have any questions or comments.

Very truly yours,



Beth L. Hamilton

Enc.

c: R. Stephen Wilson, Crowley w/o enc.
Dan Schoenholtz, Port of Oakland w/enc.
Paul Graff, Versar w/o enc.

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ARNOLD PERKINS, DIRECTOR
RAFAT A. SHAHID, DEPUTY DIRECTOR

January 17, 1996

Dan Schoenholz
Port of Oakland
530 Water St.
Oakland CA 94607

DEPARTMENT OF PUBLIC HEALTH
499 Fifth Street
Oakland, California 94607
(510)

KEARS

RE: 321 Embarcadero Av., Oakland and other Port of Oakland Sites

Dear Mr. Schoenholz:

Recently we discussed underground tanks that remain in place at 321 Embarcadero. The former tank operator, Crowley Marine Services, has removed the one tank that they claim to have operated at this address. Visual inspections of the site and reports from environmental investigations indicate that three (3) to five (5) tanks remain.

At such time that Port of Oakland determines that the number of tanks is definitely more than or less than three, or identifies another responsible party to be billed for tank fees, this agency will continue to bill the Port for three tanks at 321 Embarcadero Ave.

I am also interested in knowing whether the following Port of Oakland facilities operate any remaining underground tanks or generate hazardous waste, including waste oil and parts cleaning solvent, and batteries:

1755 Embarcadero
2801 7th St.
5190 7th St.

Berth 30
801 Maritime

Any information or referrals you can provide for these sites would be helpful. You can reach me regarding these sites or 321 Embarcadero at 567-6770.

Sincerely,

Pamela J. Evans
Senior Hazardous Materials Specialist

c: Norma Arreguin, ACDEH
Don Atkinson-Adams, ACDEH
Barney Chan, ACDEH

September 25, 1995

ATTN: R. Stephen Wilson

Crowley Maritime Plaza
P O Box 6287
Seattle WA 98111

RE: Project # 1226A - M
at 321 Embarcadero in Oakland 94606

Dear Property Owner/Designee:

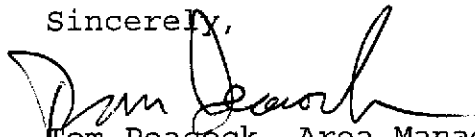
Our records indicate the deposit/refund account for the above project has fallen below the minimum deposit amount. To replenish the account, please submit an additional deposit of \$1,000.00, payable to Alameda County.

Please write your project number and site address on your check.

We must receive this deposit before we perform any further work on this project. At the completion of this project, any unused monies will be refunded to you or your designee.

If you have any questions, please contact Barney Chan at (510) 567-6700.

Sincerely,



Tom Peacock, Area Manager
Environmental Protection Division

c: files/inspector

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

September 22, 1995
SLIC ID # 1222

Mr. R. Stephen Wilson
Manager, Environmental Compliance
Crowley Maritime Services, Inc.
P. O. Box 2287
Seattle, WA 98111-2287

**Re: Comment on Draft Addendum to Site Investigation Workplan for
Pacific Dry Dock, Yard II, 320 Embarcadero, Oakland 94606**

Dear Mr. Wilson:

This letter serves to comment on the above referenced work plan addendum prepared by your consultant, Versar. I have spoken with Mr. Phil Cox of Versar and understand that a signed copy of this draft is going to be sent to me. I also understand that no corrections have been made to this draft. This being the case, I would like to comment on this addendum which proposes to install an additional four monitoring wells at this site.

Our office concurs with this work plan and I understand that this field work will commence on Monday, September 25, 1995. Please note that our office has the following comments/requests:

Please add either Total Oil and Grease or TPH as motor oil and the metals; mercury, copper, lead and zinc to the analytes to be tested for in your soil and groundwater samples.

You should also be aware that the soil contamination detected near the presumed tanks between area 2 buildings must be addressed. The proposed wells do not reflect groundwater downgradient to this area.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: Mr. P. Cox, Versar, 7844 Madison Ave., 167 Fair Oaks, CA
95628
Mr. D. Schoenholz, Port of Oakland, 530 Water St., Oakland,
94607
Mr. S. Moore, RWQCB, Surface Water Protection Division
G. Young, files well1321Em

8/22/95 ^{Rat 13} Metzger R Stephen Wilson + B. Hamilton
What reports are missing?

In Pier Report: (expected 12/95)

- May 1994 Versar 21 borings
- Results of 5 piezometer.
- gtr. GW reports w/ 60 days
- 60 days for any additional sampling activity (field work) reports
- Prenotification 48 hrs for any field work
- Stated that a wp, written County wp approval, report is typical.

UST's:

- do not accept any liability for any other tanks @ site.

• likely "3" rather UST's per Mr. Wilson

After the PIER, a RAP will be issued.

8/29/95

110933

To : Pam Evans

From : B. Chan

Re : USTS at Pacific Dry Dock 321 Embark.

From the meeting I had today w/
R. Stephen Wilson + Beth Hamilton
attorney for Crowley they confirmed
that ~~say~~ they are not responsible
for the tanks (presumably 3) at
the site. They met w/ the Port
Dan Schuenholz and told him this.
So, you probably need to bill
UST's + any other assoc bills to
the Port.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
(510) 567-6700

June 29, 1995
SLIC # 1222

Mr. R. Stephen Wilson
Manager, Environmental Compliance
Crowley Maritime Services, Inc.
P. O. Box 2287
Seattle, WA 98111-2287

**Re: Status of Subsurface Investigation at Pacific Dry Dock Yard
II, 321 Embarcadero, Oakland CA 94606**

Dear Mr. Wilson:

Thank you for the submittal of the June 14, 1995 Groundwater Monitoring Well Installation report prepared by Versar, your consultant. I have reviewed this report. Based on its results, at a minimum, you should continue to monitor these wells on a quarterly basis. Please submit a quarterly groundwater report **within 45 days of each quarterly monitoring event.**

Our office has a number of questions relating to this site which we require clarification. It appears that our office and that of the Port of Oakland reviewed a June 13, 1991 Versar report which detailed the results of a number of shallow borings soil samples at this site. These borings identified areas of both organic (petroleum) and inorganic (metals) contamination. This report further recommended the installation of six monitoring wells and up to 19 borings in areas of known or suspected contamination. Both our office (Mr. Paul Smith) and the Port of Oakland (Mr. Dan Schoenholz) responded with letters commenting on this work plan. In September 1994, I was informed by Mr. Larry Kleinecke that Versar had initiated this work. It was also at this time that I met you at the site when I oversaw the removal of an underground fuel tank. At this time, we noticed evidence of additional fuel tanks which you stated belonged to the Port of Oakland. **Please verify that any existing tanks at this site are property and responsibility of the Port of Oakland.**

No report ever was received for the work which occurred in September 1994 (other than the tank removal), therefore, I assume that the results of this investigation are to be included in the forthcoming Problem Assessment Report (PAR) mentioned in your June 22, 1995 coverletter to the June 14 Versar report.

Mr. R. Stephen Wilson
SLIC # 1222
321 Embarcadero, Oakland
Pacific Dry Dock, Yard II
June 29, 1995
Page 2

Our office has the following concerns/requests to which we request a written response:

1. Please provide evidence that any remaining underground tanks are not the responsibility or property of Crowley Marine Services. This should be in the form of a written agreement with the Port of Oakland.
2. Please inform our office if the work outlined in the June 1991 Versar report has been completed. Have there been any changes as to the contents of this work plan? If not, when will the other three monitoring wells be installed? Will they be located as shown in Figure 3-1 in the 1991 report? When will all the results of the borings be reported to our office?
3. Our office understands that the offshore release of materials from this site are being dealt with through the Regional Water Quality Control Board, Surface Water Protection Division and this issue is separate from the on-site subsurface release of which the County has assumed lead. Please confirm this belief.

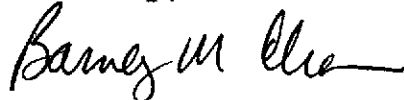
It appears that our office has not been informed of the progress of this site investigation in a timely fashion. Also, proposed work has not occurred in a timely fashion. If a June 1991 work plan was reviewed and commented on by our office and work only recently completed, or if work was performed in September 1994 and we have not yet received a written report, this is not acceptable. To this end, our office requests a written update on this site, including response to the above items, within 30 days or by July 31, 1995. Please also include in your PAR, all analytical results, your work plan for additional assessment and a timetable for its implementation.

Failure to submit the requested information may subject Crowley Marine Services to civil liability and referral of this site to the Water Board or the District Attorney's Office for enforcement.

Mr. R. Stephen Wilson
SLIC # 1222
321 Embarcadero, Oakland
Pacific Dry Dock II
June 29, 1995
Page 3

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County DA Office
Mr. P. Cox, Versar, 7844 Madison Ave., 167 Fair Oaks, CA
95628
Mr. D. Schoenholz, Port of Oakland, 530 Water St., Oakland
94607
Mr. S. Moore, RWQCB, Surface Water Protection Division
J. Makishima, files

PAR321Em

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

2101 WEBSTER STREET, SUITE 500

OAKLAND, CA 94612

(510) 286-1255

95 MAY 22 11:03 AM

ENVIRONMENTAL
PROTECTION

May 18, 1995

File Nos. 2199.9174 (SMM)
and 2199.9218 (SMM)

*Boating
is this your site of operations?*

R. Stephen Wilson
Manager, Environmental Compliance
Crowley Marine Services, Inc.
P.O. Box 2287
Seattle, WA 98111-2287

**Subject: Pacific Dry Dock Yards I and II
Request for Rescission of NPDES Permits**

Dear Mr. Wilson:

This letter responds to your February 6, 1995 letter, which requested cancellation of the NPDES permits for the two facilities located at 321 Embarcadero and 1441 Embarcadero, in the City of Oakland. In order to rescind the permits, it must be demonstrated to Board staff that discharges of wastewater or storm water (Wastes 001, 002, and 003), subject to requirements of the permits for the two sites, have been eliminated.

Board staff personnel Steve Moore and Peter Otis visited the 321 Embarcadero site during normal business hours of the marine salvage yard on May 16, 1995. On the same day, they observed the 1441 Embarcadero site from the street, since that site was not accessible without prior arrangement. During these informal visits, staff confirmed that Wastes 001 and 002, associated with dry dock operations, are no longer discharged from the two sites, since the dry docks have been removed from the sites. However, Waste 003, storm water runoff from both facilities, remains a water pollution concern.

During the site visits, staff observed evidence of storm water (Waste 003) from recent rains moving sandblast grit materials associated with the unstabilized shoreline from the sites to waters of the State. Based on these staff observations, Waste 003 has not been eliminated at either site, and NPDES permit coverage for industrial storm water must be retained at these sites until it is demonstrated that the storm water from the facilities is not in contact with industrial materials such as sandblast grit.

A permitting alternative for the storm water does exist. The NPDES permits for the sites could be rescinded if Crowley Marine Services files acceptable Notices of Intent (NOIs) for coverage of the two sites under the statewide General Industrial Activities Storm Water Permit (Industrial Permit).

Of course, if measures are taken that eliminate storm water contact with industrial materials on the sites and along the shoreline, NPDES coverage under general or individual permits would be rendered unnecessary. Site drainage improvements and/or shoreline stabilization may be necessary to demonstrate that storm water from the site contains no pollutants related to past or present industrial activity.

The two NPDES permits expire on March 20, 1996. Because this expiration date is approaching within the upcoming year, please be advised of requirements of Provision 10 of the two NPDES permits for the sites. To meet these permit application requirements, you will need to file with our agency, by September 20, 1995, either (1) Reports of Waste Discharge as applications for renewal of the existing permits, (2) NOIs for coverage under the statewide Industrial Permit, or (3) a workplan or schedule of activities that will be implemented to demonstrate that industrial storm water has been eliminated at the sites. We encourage you to pursue option (3), since it would eliminate regulatory requirements and fees, as well as sources of water pollution. If you choose option (3), we will work closely with you to reach a solution that is mutually acceptable.

If you have any questions regarding the letter please contact staff engineer Steve Moore at (510) 286-1262.

Sincerely,



Teng-Chung Wu, Chief
Surface Water Protection Division

cc Dan Schoenholz, Port of Oakland
Paul Smith, Alameda County Department of Environmental Health
Karen Taberski, Planning Division, RWQCB
Ronni Vasconcellos, Division of Water Quality, SWRCB

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 286-1255
FAX: (510) 286-1380 or -0967HAZMAT
NOV 29 PM 5:05

November 22, 1994

File Nos. 2199.9174 (SMM)
and 2199.9218 (SMM)~~423~~ ^{Ro}
423

R. Stephen Wilson
Manager, Environmental Compliance
Crowley Marine Services, Inc.
P.O. Box 2287
Seattle, WA 98111-2287

Dear Mr. Wilson:

This letter acknowledges the receipt of and responds to the technical report entitled "Supplemental Inshore Sediment Impairment Study," dated June 1994. This report is an environmental study of sediments at the Pacific Dry Dock Yards I and II, located in the Oakland Inner Harbor, prepared by PTI Environmental Services for Crowley Marine Services.

Board staff reviewed the data contained in the technical report and believe that data quality objectives were met, and therefore consider the quantitative toxicity, chemistry, and bioaccumulation information valid. While we believe that the data was collected and the report prepared in a professional manner, we disagree with some of the interpretations of the data and conclusions of the report.

Based on the data in the report, we do not agree with your conclusion that additional consideration of active remedial action at PDD Yards I and II is not warranted to protect the environment. For example, the echinoderm assays indicated consistent toxicity in all sediment transects at the Dry Dock sites except the one furthest from the shore, compared to the San Pablo Bay reference sites. In addition, the sediments of Transects I-T4, II-T5, and II-T6 appear to have significantly elevated levels of constituents of concern.

As stated in earlier correspondence, Crowley Maritime Corporation has been given Notices of Violation for permit violations in 1987, 1988, and 1990. The recently submitted environmental report does not exonerate Crowley from enforcement and remedial action relative to those documented violations. We are still considering requiring Crowley Maritime Corporation to submit a remedial action plan for cleanup of the sediments at the site. Any required remedial action at the site in the future will be consistent with sediment remedial plans approved by the RWQCB for other sites in the toxic hotspots database of the Bay Protection and Toxic Cleanup Program (BPTCP - Section 13394 of the California Water Code). Data in the recently submitted technical report will be considered in setting cleanup goals, if they are determined to be necessary in the regional context of the BPTCP.

If you have any questions regarding the letter please contact staff engineer Steve Moore at (510) 286-1262. Questions regarding the toxic hot spots cleanup activities should be directed to Karen Taberski at (510) 286-1346.

Sincerely,



Teng-Chung Wu, Chief
Surface Water Protection Division

cc Dan Schoenholz, Port of Oakland
Paul Smith, Alameda County Department of Environmental Health
Karen Taberski, Planning Division, RWQCB

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



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 29, 1994
StID #1222

Mr. Stephen Wilson
Crowley Marine Services
2401 Fourth Ave.
P.O. Box 2287
Seattle, WA 98111

**Re: Copy of Charges for Alameda County Oversight of 320
Embarcadero, Oakland CA 94606, PDDII.**

Dear Mr. Wilson:

As requested, enclosed please find copies of all charged actions performed by our office in regards to the oversight of the above referenced site. I hope this satisfies your inquiry and will facilitate the submittal of a check for the previously requested \$1000.00. As you can see, the current account is in arrears in the amount of \$303.75.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
E. Howell, files

2dep325



CROWLEY MARINE SERVICES, INC.

GLD
HAZMAT

54 JUN --8 PM 2:48

104123

SLIC

May 31, 1994

Mr. Edgar B. Howell III, Chief
Hazardous Materials Division
Department of Environmental Health
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Reference: **Project # 1226A - M**

Dear Mr. Howell:

With reference to your letter to me dated May 18, 1994 regarding a minimum deposit amount for the above project, I would like to make the following corrections:

- The Site address is 321 Embarcadero not 320 as stated;
- The correct contact address is:
Crowley Marine Services, Inc.
PO Box 2287
Seattle, WA 98111-2287.

Before Crowley pays an additional deposit of \$1,000 to Alameda County, please supply me with documentation regarding the expenditure of the original \$1,000.

Thank you for your help with this matter. If you have any questions or comments regarding this matter please contact me at (206) 443-8100.

Sincerely,

R. Stephen Wilson
Manager, Environmental Compliance

cc: 9209.1

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

May 18, 1994

ATTN: R. Stephen Wilson

Crowley Maritime Plaza
P O Box 6287
Seattle WA 98111

RE: Project # 1226A - M
at 320 Embarcadero in Oakland 94606

Dear Property Owner/Designee:


Our records indicate the deposit/refund account for the above project has fallen below the minimum deposit amount. To replenish the account, please submit an additional deposit of \$1,000.00, payable to Alameda County.

Please write your project number and site address on your check.

We must receive this deposit before we perform any further work on this project. At the completion of this project, any unused monies will be refunded to you or your designee.

If you have any questions, please contact Barney Chan at (510) 271-4320.

Sincerely,


Edgar B Howell III, Chief
Hazardous Materials Division

c: files/inspector

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

2101 WEBSTER STREET, SUITE 500

OAKLAND, CA 94612

(510) 286-1255



December 30, 1993

File Nos. 2199.9174, 2199.9218 (SMM)

ALCO
HAZMAT

JAN -5 PM 3:23

R. Stephen Wilson
Manager, Site Remediation
Crowley Environmental Services
P.O. Box 2287
Seattle, WA 98111

Subject: Pacific Dry Dock Yards I and II, Oakland Inner Harbor

Dear Mr. Wilson:

Thank you for your prompt submittal of the revised workplan for the Pacific Dry Dock sites. Concerns that we expressed in our November 9, 1993 letter have been thoroughly addressed in your latest submittal. We are pleased that you have elected to retain *Neanthes* toxicity testing at both sites.

We appreciate the cooperative demeanor exhibited by your staff and consultants in our discussions about the workplan. Given the lack of information and precedents in the field of "sediment quality," it is important for both of us to remain open-minded about the results of your study and the appropriate course of action at the dry dock sites. Board staff believe that your revised workplan is technically strong and that it will provide a firm basis for informed decision-making.

By this letter, staff of the San Francisco Bay Regional Water Quality Control Board approve your study proposal that was submitted on December 13, 1993. We hope that this written notice will facilitate the rapid initiation of the environmental study at Yards I and II. Please let us know when you will be working in the field, so that we can arrange to observe some of the sampling, at your convenience.

If you have any questions, please contact Steve Moore at (510) 286-1262. We look forward to working with you on this environmental study.

Sincerely,

Teng-Chung Wu, Chief
Surface Water Protection Division

cc: Dan Schoenholz, Port of Oakland
Paul Smith, Alameda County Dept. of Env. Health

DATE: 12/27/93

TO : ~~Madhulla Logan~~ Barney

FROM: Paul

SUBJ: Transfer of Slic cases



Site name: Pacific Slic Deck / Crawley Machine

Address: 321 Embarcadero City Oakland Zip 94606

Stid # 1222

This site is also regulated by the following programs:

~~HAZ~~ Gen X UGT X LOP _____ Storm Water _____

Contamination level: 109,000 ppm TPH (ppm, TTLC, STLC, in order of hazard)

additional: 60 ppm Cr 1900 ppm Cu

7,500 ppm Pb 26 ppm Hg

0.21 ppm TCE 0.30 bis 2-ethylhexyl phthalate

Have you made all entries on the deposit/refund account sheet? _____

Is the site file organized with all pertinent information in it? _____

Date of last correspondence from this office: _____

Date of last workplan/technical report: _____

DepRef remaining \$ _____ If the case has less than \$100 first send a Dep/Ref request for additional funds, complete this transfer sheet, and then give it with the case to Madhulla.

left a note for Leslie to print out a letter to Stephen Wilson requesting additional funds (another \$1000.-)
Also called Stephen in Seattle to ask what the disposition of the workplan implementation was.

97091

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 286-1255

CONTROL BOARD
HAZMAT



93 NOV 10 AM 11:02

November 9, 1993

File Nos. 2199.9218
2199.9174
(SMM)

R. Stephen Wilson
Manager, Site Remediation
Crowley Environmental Services (CES)
P.O. Box 2287
Seattle, WA 98111

Subject: **Pacific Dry Docks I and II, Oakland Inner Harbor**

Dear Mr. Wilson:

This letter is a formal request for a technical report pursuant to Section 13267 of the California Water Code. Failure to respond or late response to this request may subject you to civil liability imposed by the Board to a maximum amount of \$1,000 per day. A revised workplan, acceptable to the Executive Officer, must be submitted to the Board by **December 15, 1993** or within 30 days of receipt of this letter, whichever is earlier. Any extension of this time deadline must be confirmed in writing by Board staff.

With this letter, we acknowledge the receipt of the revised Supplemental Sediment Sampling and Analysis Plan prepared for Crowley, and discuss remaining concerns of Board staff. In addition, this letter responds to the report's transmittal letter dated October 25, 1993, as well as Crowley's letter dated June 8, 1993. Also, for your information, we have included a summary of ranges of tissue residue levels in Bay prey species, such as *Macoma balthica*, the Board would probably consider "levels of concern," based on ecological and public health risk studies in the available literature.

The discussion below begins with responses to your comments of the June 8, 1993 letter, followed by responses to comments of the October 25, 1993 transmittal letter. The letter ends with discussion of remaining concerns about the workplan, and the necessary steps Crowley must take to complete a workplan acceptable to the Executive Officer.

JUNE 8, 1993 LETTER FROM CROWLEY TO RWQCB

1. **Sediments contaminated near Pacific Dry Docks I and II are the result of violations of discharge prohibitions and receiving water limitations of Orders 84-11 and 85-115. More specifically, solid wastes have been discharged to the**

estuary due to activity on the sites, and spent abrasives and paint residue were placed in areas where they could be washed into waters of the State by stormwater runoff. Board staff inspection reports during the past years confirm these past violations. It is useless for Crowley to deny that contamination resulted from permit violations, because Board staff observed and documented evidence of storm runoff washing contaminated spent abrasives into the Oakland Inner Harbor from the PDD sites in 1987, 1988, and 1990. Regional Board files contain notices of violation that were sent to Crowley at these times. The specific violations are noted below:

Order 84-11: Discharge Prohibitions B.1, B.2; Receiving Water Limitations C.1.a, C.1.b, C.1.e.

Order 85-115: Discharge Prohibitions A.1, A.2; Receiving Water Limitations C.1.a, C.1.b, C.1.e.

2. **Current compliance with Waste Discharge Requirements has nothing to do with Crowley's responsibility to address past violations.** In annual inspection reports Board staff will recognize permittees for their exemplary compliance with permit requirements, as was the case for the PDD sites in 1993. Board staff views the past violations by Crowley, unrelated to this year's inspection, as negligent and potentially deleterious to wildlife and public health, based on sediment concentrations reported separately by Board staff and Crowley.

OCTOBER 25, 1993 LETTER FROM CROWLEY TO RWQCB

1. **Board staff support the addition of the echinoderm larvae test, because this sediment toxicity bioassay tends to be more sensitive to metals, the pollutants of concern at the PDD sites.** The fundamental question to be addressed at the PDD sites is whether the contaminants deposited in the estuary will adversely affect the resident organisms that are the most sensitive to those specific contaminants. Whether the endpoint of a toxicity test is acute or chronic is secondary in comparison. Board staff disagree that all *Neanthes* tests must be withdrawn, and disagree with the allegation that requiring three bioassays would only contribute to "research" comparisons. If two bioassays per transect are performed and important questions remain unanswered, more bioassays will be required by the Board. For instance, the performance of *Neanthes* tests on sediment transects that include grit concentrations over 30% could yield useful information on the physical impact of these contaminated sediments.
2. **No workplan will be acceptable to the Executive Officer that does not include provisions to study bioaccumulation potential.** Mercury is the principle contaminant of concern at the PDD sites, present in sediment at "extremely high" concentrations according to U.S. Fish and Wildlife (USFWS) contaminant specialists who have been consulted regarding the sites. Mercury has documented bioconcentration factors (BCFs) ranging between 10,000 (inorganic)

and 81,000 (phenylmercury). Bioaccumulation studies will aid in determining whether more deleterious species of organic mercury, which accumulate rapidly compared to inorganic mercury, are present in the contaminated sediment. Generally speaking, methylmercury percentages are greater in fine grain sediments such as those found naturally at the site (due to typically greater organic content in fine sediments), so Board staff believe that further investigations of tissue residue are soundly warranted.

Please be advised that independent of Board staff concerns, no resource agency (CDFG, USFWS, or EPA) or environmental organization would approve an environmental impact workplan on mercury-contaminated sediments that did not evaluate bioaccumulation potential of those sediments.

The only research the Board is interested in with regard to the PDD sites is whether or not there is a serious environmental threat related to the contaminated sediments. Based on numbers alone, a serious bioaccumulation threat was indicated by sediment chemistry results submitted by Crowley to the Board. Crowley staff would probably agree that the PDD sites need to be evaluated in the context of the impaired water body to which the sites are adjacent, and not just relative to absolute tissue standards. Board staff have access to a substantial amount of data with which to compare results obtained at Crowley. The idea that these comparisons constitute research unrelated to the Crowley sites, as suggested by your consultant, is a misinterpretation. Rather, the bioaccumulation data from certain dredging projects in the Inner Harbor would provide some appropriate background data relative to the PDD sites. More likely than not, such data comparisons would allow greater leniency relative to the use of rigid tissue concentration numbers developed through special studies conducted by USFWS and EPA.

At our meeting on August 25, 1993, Board staff agreed to provide Crowley "criteria" on which evaluation of bioaccumulation data would be based. In this letter, we have attached some examples of prey tissue levels of concern for different predators (including humans) for mercury. Staff believe that these cited tissue residue levels provide an "order of magnitude" with which to compare results at the PDD sites. If similar orders of magnitude are experienced in test organisms for the PDD sites, those results alone do not necessarily signify a required remediation effort.

Bioaccumulation test results will be considered in the balance of evidence of environmental impact, which includes results of the proposed toxicity tests, *Macoma* test data from applicable dredging projects (based on location), resident *Macoma* data collected by USFWS bay-wide, and results from the proposed reference sites. In addition, by the time Crowley's study results become available, it is probable that USFWS and EPA will have released applicable mercury sediment and/or tissue criteria. Reference sources similar to those cited for mercury exist for lead, also a contaminant of concern related to

bioaccumulation at the PDD sites. Bioaccumulation tests conducted by Crowley should focus on mercury and lead.

REVISED SUPPLEMENTAL SEDIMENT SAMPLING AND ANALYSIS PLAN

Board staff appreciate the compromises that Crowley staff have made in the workplan to focus on the Board's concerns. Testing protocol and sediment sampling depth issues have been resolved. Appropriate reference sites have been established. We are optimistic that the bioaccumulation and toxicity concerns detailed above will be resolved in the next round of communication.

Board staff had the impression that one issue raised at the August 25, 1993 meeting, regarding transect compositing (Figures 2 and 3), was resolved at the meeting. However, the revised plan did not incorporate the changes suggested by Board staff, with which Crowley staff appeared to give concurrence at the meeting. Board staff maintain that the following proposed sediment transects are inappropriate and recommend the following changes:

YARD I

Proposed

2C-7A-1C-7B

Recommended

2C-7A; 1C-7B or 7B only

YARD II

Proposed

6A-7A-7B-7C

Recommended

6A-7A; 7B-7C

Board staff would be receptive to the elimination of one transect with lower contamination further away from the docks and railways (based on previous results) at each Yard as a trade-off for the above recommended transects. Specific details can be worked out prior to the next workplan submittal. This issue is important to Board staff for reasons already discussed at length with Crowley representatives at the two meetings of this year.

CONCLUDING REMARKS

The Regional Water Quality Control Board believes that disagreements such as those we have had over the proposed workplan should be resolved at the staff level, as we have been attempting to accomplish. Resolution is possible only if all parties communicate clearly and proceed with good faith. The revised workplan did not address the transect issues we resolved, and ignored the bioaccumulation suggestions on the basis of Board staff producing an informal framework for decision-making that is not required to be produced under Section 13267 of the California Water Code.

Section 13267(b) states that "the burden, including costs, of these (technical) reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." All of Board staff who have reviewed this case believe that bioaccumulation testing of mercury-contaminated sediment is reasonable, and such testing is routine and certainly not cost-prohibitive. Therefore, pursuant to Section 13267(b), Crowley "shall furnish, under penalty of perjury, the technical report as the board may specify."

Up to now, Board staff have been pursuing a collaborative goal in discussions with Crowley, and have been purposefully avoiding the taking of enforcement action that is warranted under Section 13304(a) of the California Water Code. In the event that Crowley does not provide an acceptable workplan to define environmental impacts of the contaminated sediment within 30 days, the Board will explore other available alternatives to expedite the removal of contaminated sediments deposited in Oakland Inner Harbor by Crowley in violation of waste discharge requirements.

We reiterate the factors that render the currently proposed workplan unacceptable to the Executive Officer:

- Improper compositing of two sediment transects
- Lack of bioaccumulation testing on any sediment transect

In addition, we request that you consider the additional toxicity tests that would better address physical impacts of the illicitly deposited sandblast grit.

We look forward to resolving the remaining issues with your representatives. If you have any questions regarding the contents of this letter, please contact Steve Moore at (510) 286-1262 or Karen Taberski at (510) 286-1346.

Sincerely,



Teng-Chung Wu, Chief
Surface Water Protection
Division

cc: Dan Schoenholz, Port of Oakland
Paul Smith, Alameda County Dept. of Env. Health

attachment

**Tissue Residue Levels for Protection of Wildlife and Human Health
Mercury**

Species to be Protected	Prey Tissue Concentration ¹	LITERATURE SOURCES
Sensitive Bird Species	0.100 mg/kg	(1), (2)
Sensitive Mammalian Species (mink, otter)	1.1 mg/kg	(2)
Harp Seals (acute lethal)	25 mg/kg	(3)
River Otters (acute lethal)	2.0 mg/kg	(3)
Mallard Ducks (chronic - LOAEL for adult reproduction)	0.5 mg/kg elemental Hg	(3)
FDA Action Level for Fish or Shellfish (Human Health)	1.0 mg/kg	(4)
Human Expectant Mothers	0.250 mg/kg	(2)
Human Health - Ingestion of Trout	5.0 mg/kg	(2)
Water Quality Criterion-Residue Approach (Maximum Permissible Tissue Concentration or MPTC) ²	1.0 mg/kg	(5)

For assessment of the environmental threat of sediment contamination, U.S. EPA's guidance document, "Managing Contaminated Sediments," (December 1990) suggests the tissue residue approach as one of a number of technically valid methodologies.

¹ All tissue concentrations are in wet weight (or "fresh weight")

² MPTC = BCF X WQO where BCF is the bioconcentration factor of the contaminant and WQO is the applicable water quality objective. For mercury, BCF = 40,000 and the salt water quality objective from the Basin Plan is 0.025 µg/l.

LITERATURE SOURCES

- (1) Schwarzbach, S., "Water Quality Objectives for Mercury in San Francisco Bay," U.S. Fish and Wildlife Letter Report, October 14, 1991.
- (2) Eisler, Ronald, "Mercury Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review," U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, April 1987.
- (3) U.S. Environmental Protection Agency, "Great Lakes Water Quality Initiative Criteria Documents for Protection of Wildlife (Proposed)," April 1993.
- (4) U.S. Environmental Protection Agency, "Ambient Water Quality Criteria for Mercury," January 1985.
- (5) U.S. Environmental Protection Agency, "Sediment Classification Methods Compendium," September 1992.



CROWLEY ENVIRONMENTAL SERVICES

October 15, 1992

Mr. Paul M. Smith
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Reference: Pacific Dry Dock and Repair Yard II, Oakland

Dear Mr. Smith:

Per your letter of October 4, 1992 enclosed please find a check for \$1,000.00 as a deposit to cover regulatory agency file review fees regarding the Crowley Marine Services (Crowley) facility located at 321 Embarcadero in Oakland.

Crowley is currently negotiating an environmental agreement with the property owner, the Port of Oakland, with respect to the proposed workplan for the site and your subsequent conditional approval. As and when the environmental agreement has been finalized Crowley and the workplan has been revised per your letter, Crowley will proceed with the investigation at the site.

If you have any questions or comments regarding this site please contact me at (206) 443-8042.

Sincerely

R. Stephen Wilson
Manager, Site Remediation

encl.

cc: Charlie Nalen

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

October 4, 1992

R. Stephen Wilson

Mr. ~~George A. Brooks~~
Manager, Environmental Control
Crowley Maritime Corporation
Crowley Maritime Plaza
Post Office Box 2287
Seattle, Washington 98111

Re: Pacific Dry Dock Yard II located at 320 Embarcadero,
Oakland, CA 94606

Dear Mr. ~~Brooks~~ *Wilson*:

This is a follow up to August 13, 1992 correspondence sent to you from this office. The work plan was approved conditional to the inclusion of six items stated in that correspondence. Upon review of the file for the above project it became apparent that an initial deposit/refund account had never been established.

The deposit refund mechanism in which fees associated with the regulatory oversight, of a project can be billed to a Responsible Party, is authorized by Alameda County Ordinance Code Section 3-140.5 (z). You are requested to remit \$ 1000.00 to cover expenses incurred by this Department in the review of the 320 Embarcadero site. The funds will be billed against at the rate of \$ 71.00 per hour. Any unused portion of funds charged will be returned to you at the completion of the project.

Additionally, please provide an update of your intentions regarding the implementation of the approved work plan and

Mr. Brooks
October 5, 1992
page 2 of 2

include a timetable for both the implementation of the proposed work, the removal of the underground storage tanks and the completion of the HMMPs for the 321 and the 1441 Embarcadero sites. Please provide the above to this office within 30 days of the receipt of this letter.

Sincerely,



Paul M. Smith
Senior Hazardous Materials Specialist

cc:

- ~~Mr. John Dunn, Facility Manager, Pacific Dry Dock, 1441 Embarcadero, Oakland, CA 94606~~
- ~~Mr. Rich Hiett, San Francisco Regional Water Quality Control Board, 2101 Webster St., 5th floor, Oakland, CA 94612~~
- ~~Mr. Dan Schoenholz, Port of Oakland, 530 Water St., Oakland, CA 94607~~
- ~~Mr. Gil Jensen, Alameda County District Attorneys Office, 7677 Oakport, 4th floor, Oakland, CA 94621~~
- ~~Ms. Yvonne M. Lembi, Versar Inc., 5330 Primrose Drive, Suite 228, Fair Oaks, CA 95628-3520.~~

called 12/16/92

Stephen Wilson (209) 443-8042

Larry Kleinellie



CROWLEY ENVIRONMENTAL SERVICES

CALIF. REG. WATER
SEP 24 1992
QLTY. CONTROL BOARD

September 18, 1992

Teng-Chung Wu, Chief
Surface Water Protection Division
San Francisco Bay Regional Water
Quality Control Board
2101 Webster Street
Oakland, CA 94612

RE: Pacific Dry Dock Yards I and II

Dear Mr. Wu:

This letter responds to your letter of August 3, 1992 requesting that we submit a plan for removal of sediments from San Francisco Bay adjacent to Pacific Dry Dock Yards I and II. We have a number of questions and concerns about this request, which we will briefly describe in this letter. After you have had a chance to consider our concerns, we would appreciate meeting with appropriate Board staff to determine what actions should be undertaken and the schedule for completing them.

1. The Board should be proceeding under the Bay Protection and Toxic Cleanup Act, rather than Water Code section 13267.

Your letter cites Water Code section 13267 as authority for requiring us to remove sediments from the Bay adjacent to Yards I and II. We believe that sediment cleanups should be undertaken pursuant to the Bay Protection and Toxic Cleanup Act (Water Code section 13390, et. seq.). This Act calls upon the Board, along with other state agencies, to develop and maintain a comprehensive program to identify and characterize areas where marine sediments may pose a substantial present or potential hazard to aquatic life, wildlife, fisheries or human health or may adversely affect the beneficial uses of the bay estuary, or exceeds adopted water quality or sediment quality objectives. Clearly, this statute was designed to address precisely the type of situation that the Board has asserted may exist adjacent to Yards I and II.

We believe that one of the principal benefits of the Bay Protection and Toxic Cleanup Act is that it requires an integrated, bay/estuary-wide analysis and remedy. We are quite concerned that any attempt to isolate Yards I and II from the bay and estuary program could lead to ineffective and wasteful remedial investigation and design.

2. Available data indicate no impact on surface waters.

Although the inshore sediment studies Crowley has conducted indicate that spent abrasive materials have collected on the bay floor adjacent to Yards I and II, those studies do not establish that these deposits are having any adverse effect on human health or the environment. Indeed, the sampling from overlying surface waters would appear to indicate that at least that aspect of the environment remains unaffected.

We strongly believe that before the need for and scope of any remedy relating to the sediments adjacent to Yards I and II can be determined, it is necessary to have a better understanding of the availability to the environment of the metals contained in the sediments, the toxicity of these sediments to marine life, and the effects of disturbing the sediments. Given that no effect on marine life or marine waters has been demonstrated, we believe that it is inappropriate to embark upon the design of a remedy. To design a remedy, the problem to be remedied must first be defined. We believe that the "problem," if any, remains undefined.

3. The suggested clean-up goals are not based on sound science.

Your letter of August 3 suggests cleanup levels for the sediments adjacent to Yards I and II based upon what you have calculated to be the average background concentrations for the metals of concern in the Oakland Inner Harbor. First, it is unclear to us whether these numbers in fact represent average background concentrations in this portion of the estuary. More importantly, however, we do not believe that average background concentrations should necessarily be used as clean-up goals. Such background concentrations do not necessarily bear a relationship to the levels at which one might expect to observe some effect on marine waters or marine life. Indeed, "background" concentrations may be higher or lower than the levels at which an effect would be observed. In any event, we believe that the determination of whether in fact a problem exists, and how it should be remedied, must turn on some scientific evaluation of appropriate cleanup levels based on the effects of these sediments on the environment.

Further the suggestion that we remove all sediments containing more than 10% spent abrasives does not appear to be based on any type of effects analysis. Like the other constituents, we believe there must be a scientific evaluation of this issue before a cleanup level can be set.

4. Without an adequate definition of the environmental harm posed by the presence of these sediments, it is impossible to design a remedy.

As indicated above, we believe that the appropriate first step in determining whether and how to address the presence of spent abrasives in the marine sediments adjacent to Yards I and II is to fully define the scope and extent of the "problem," if any. As we see it, the problem is not the mere presence of these sediments, but some adverse effect that they might have upon human health or the environment.

5. Further investigation is required.

For all of these reasons, we believe that the best course of action would be to:

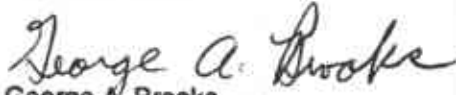
- a. Manage the Pacific Dry Dock sites in a manner consistent with the Bay Protection Act, and make any decisions as to whether remediation is required based on the sediment quality objectives and criteria for requiring cleanup which will be established pursuant to the Act; and

Teng-Chung Wu
September 18, 1992
Page 3

- b. Complete sediment and surface water investigations as specified in section 13390 to determine the source, nature and extent of the discharge with sufficient detail to provide the basis for decisions regarding subsequent cleanup and abatement actions if any are necessary, and to evaluate the effectiveness, feasibility and relative costs of applicable alternative methods for cleanup and abatement.

To accomplish these goals, we need guidance from the Board staff, particularly the Bay Protection Unit. We would like to meet with you and Regional or State Board personnel involved with the Bay Protection Program to discuss completing our investigation efforts and evaluating the feasibility of remediation alternatives. We look forward to hearing from you.

Very truly yours,



George A. Brooks
General Manager, CES

cc: B. Love
C. Nalen
D. Schoenholtz, Port of Oakland
M. Steele, PM&S

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

August 13, 1992

Mr. George A. Brooks
Manager, Environmental Control
Crowley Maritime Corporation
Crowley Maritime Plaza
Post Office Box 2287
Seattle, Washington 98111

**Re: Pacific Dry Dock Yard II located at 320 Embarcadero,
Oakland, CA 94606**

Dear Mr. Brooks:

Alameda County has performed a review of the Site Investigation Work Plan dated June 13, 1991 prepared by Versar Inc. We have also had the opportunity to perform a site inspection at the above site.

The work plan outlines results of a previous subsurface investigation performed by Versar, Inc. Results of 20 soil samples collected indicate subsurface contamination at five locations as high as 109,000 ppm of Total Petroleum Hydrocarbons (TPH), 61 ppm total Chromium, 1,900 ppm Copper, 7,500 ppm Lead, 26 ppm Mercury, 0.21 ppm Tetrachloroethene and 0.30 ppm of bis(2-ethylhexyl) phthalate.

Based upon the results outlined above Versar is proposing to perform approximately 19 additional borings and install 6 monitoring wells. The proposal is hereby approved with the following inclusions:

- 1) The proposal specifies that 5 wells four inch wells will be installed and that one well will be a two inch inside diameter well. The work plan does not specify the location of the two inch well. You are requested to clarify this point.
- 2) Please specify the soil sampling depths, well installation depths and well screening intervals to be observed.
- 3) The listing for the analysis of future soil and groundwater samples to be collected did not specify analysis for total chromium. Because sample results from PDDII-1 indicated a level of total chromium exceeding ten times the soluble limit threshold concentration specified in Title 22 of the California Code of Regulations, you are required to also analyze all samples for

Mr. Brooks
August 13, 1992
page 2 of 3

this substance. Additionally, regarding groundwater samples to be collected, the work plan specifies that "not all of the samples will be analyzed for the listed constituents". You are required to analyze each groundwater sample collected for all pollutants previously identified at the site.

4) Regarding the site safety plan. You are requested to specify the monitoring equipment to be used during the proposed drilling/ monitoring well installation.

5) You are requested to have your Consultant notify this office in advance of the boring work to be performed at the site so that a representative from this Department can be present to observe some phase of the work being performed.

6) The initial subsurface report prepared by Versar did not include the original analytical data or chain of custody. When preparing the soils report following the next phase of work please include this information and any Quality Assurance and Quality Control data relevant to these data.

Regarding the site inspection performed by this Office on May 5, 1992, the following issues were noted:

1) In the area of the powerhouse building is an old boiler and ancillary piping containing what appears to be asbestos wrapping. Will this material be removed when Pacific Dry Dock vacates the premises?

2) There are several underground storage tanks (usts) in front of the power pack shop. The law requires that underground storage tanks be either properly permitted (which includes monitoring and performing annual tank integrity tests) or removed. Please specify your intentions regarding these tanks. Based upon results of the initial Versar study it appears that petroleum hydrocarbon soil contamination in the area of these usts has been associated with fuel tank activity

3) Behind the area of the warehouse where supplies and hazardous materials are stored is a metal bin containing several ruptured and dried up asphalt roofing material containers. The asphalt must be properly used or disposed of.

4) Numerous hazardous material and waste containers were noted at several locations throughout the facility. Based upon the threshold reporting quantities specified in California Assembly Bill 2185, businesses storing hazardous materials above 55 gallons (liquids), 500 pounds (solids), or 200 cubic feet (compressed gasses) are required to prepare a Hazardous Materials

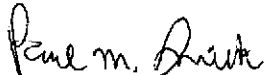
Mr. Brooks
August 13, 1992
page 3 of 3

Management Plan (HMMP). Because materials containing such quantities are currently stored at both Pacific Dry Dock locations, the law requires that each site complete an HMMP. I am aware that it is your intention to vacate the above premises however, upon inspection, it was quite apparent that several businesses continue to function at the site.

Please complete an HMMP for the 321 Embarcadero and also for the 1441 Embarcadero facility within 30 days of the receipt of this letter by September 15, 1992. Enclosed is an HMMP form for your review.

If you have any questions regarding the content of this letter please feel free to contact me at (510) 271-4320.

Sincerely,



Paul M. Smith
Senior Hazardous Materials Specialist

cc:

- Mr. John Dunn, Facility Manager, Pacific Dry Dock, 1441 Embarcadero, Oakland, CA 94606
- Mr. Rich Hiett, San Francisco Regional Water Quality Control Board, 2101 Webster St., 5th floor, Oakland, CA 94612
- Mr. Dan Schoenholz, Port of Oakland, 530 Water St., Oakland, CA 94607
- Mr. Gil Jensen, Alameda County District Attorneys Office, 7677 Oakport, 4th floor, Oakland, CA 94621
- Ms. Yvonne M. Lembi, Versar Inc., 5330 Primrose Drive, Suite 228, Fair Oaks, CA 95628-3520.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612

Phone: (510) 464-1255
FAX: (510) 464-1380



Mr. George Brooks
Crowley Maritime Corporation
Environmental Compliance
P.O. Box 2287
Seattle, Wa 98111

Date: August 3, 1992
File: 2199.9218 and 2199.9174 (DIB)

SUBJECT: CONTAMINATED SEDIMENT AT PACIFIC DRY DOCK

Dear Mr. Brooks:

We have reviewed the reports on the Inshore Sediment Impairment Study for Pacific Dry Dock and Repair Yards I and II, submitted to this office on October 28, 1991. The study was in response to a Regional Board request for a sediment investigation at Yards I and II.

The results of the study confirm that sand blasting of vessel hulls at Yards I and II has impacted the sediments at the two sites. Heavy Metals such as copper, chromium, lead, zinc and mercury, as well as organo-tin, associated with marine anti-fouling paint are present in elevated concentrations in sediment at Yards I and II. Cleanup of this contaminated sediment will be necessary.

Although the levels of all the metals just listed are high, mercury is of most concern to us. The reported mercury values are very high; much higher than any other spot in the Bay for which we have data. Four of the averaged values from the sampling areas exceed the California Title 22 Total Threshold Limit for mercury. Sediment quality data developed as part of the EPA's Sediment Quality Criteria Program, indicate that mercury is one of the most toxic metals in sediment. Accordingly, mercury will probably be driving the cleanup at these sites. We have decided that the most appropriate cleanup levels for the Pacific Dry Dock sites are the average background concentrations in the Oakland Inner Harbor for the metals of concern. These concentrations are:

Mercury - 0.72 mg/kg
Copper - 73 mg/kg
Lead - 54 mg/kg
Zinc - 178 mg/kg
(Dry weight values)

These values are in dry weight. For any future sediment sampling, results should be reported on a dry weight basis. This allows an easier comparison with other samples and with sediment criteria.


Section 13267 of the California Water Code (Porter - Cologne Act) gives the Regional Water Quality Control Board the authority to investigate water quality in relation to a waste

discharge and to require a waste discharger to supply related technical reports deemed necessary. Therefore, in accordance with Section 13267 of the California Water Code, please submit a plan by September 30, 1992 for the removal of contaminated sediment from Pacific Dry Dock Yards I and II. The plan should include a time schedule and should address the following items:

1. Removal of contaminated sediment such that metals levels in sediment at the two sites does not exceed the above criteria.
2. Removal of sediment that contains more than 10% sand blasting grit.
3. Steps to ensure that resuspension and offsite movement of contaminated sediment and heavy metals will be kept to a minimum.
4. Proper disposal of contaminated sediment once it has been removed.

If you have any questions please call David Barr at (510) 464-1246.

Sincerely,



Teng-Chung Wu
Chief, Surface Water Protection
Division

cc: Dan Schoenholz - Port of Oakland

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF
 ENVIRONMENTAL HEALTH
 Hazardous Materials Inspection Form

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

II, III

Site ID # 1222 Site Name Powerpack ship Today's Date 5/5/92

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

Site Address 171 Franklin

City San Francisco Zip 94106 Phone 415-7715

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(j)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

III. UNDERGROUND TANKS (Title 23)

- | | |
|---|---|
| General | <input type="checkbox"/> 1. Permit Application 25284 (H&S) |
| | <input type="checkbox"/> 2. Pipeline Leak Detection 25292 (H&S) |
| | <input type="checkbox"/> 3. Records Maintenance 2712 |
| | <input type="checkbox"/> 4. Release Report 2651 |
| | <input type="checkbox"/> 5. Closure Plans 2670 |
| Monitoring for Existing Tanks | <input type="checkbox"/> 6. Method |
| | 1) Monthly Test |
| | 2) Daily Vadose
Semi-annual gndwater
One time soils |
| | 3) Daily Vadose
One time soils
Annual tank test |
| | 4) Monthly Gndwater
One time soils |
| | 5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon. |
| | 6) Daily Inventory
Annual tank testing
Cont pipe leak det |
| | 7) Weekly Tank Gauge
Annual tank testing |
| | 8) Annual Tank Testing
Daily Inventory |
| | 9) Other _____ |
| New Tanks | <input type="checkbox"/> 7. Precls Tank Test 2643
Date: _____ |
| | <input type="checkbox"/> 8. Inventory Rec. 2644 |
| | <input type="checkbox"/> 9. Soil Testing 2646 |
| | <input type="checkbox"/> 10. Ground Water 2647 |
| | <input type="checkbox"/> 11. Monitor Plan 2632 |
| <input type="checkbox"/> 12. Access Secure 2634 | |
| <input type="checkbox"/> 13. Plans Submit 2711
Date: _____ | |
| <input type="checkbox"/> 14. As Built 2635
Date: _____ | |

Comments:

Inspection of the above facility reveals several violations on marine gas cylinders - expired / maintenance - lateral regulatory compliance imp. has materials / waste handling and underground storage tank.

We do not see any gas cylinders stored above ground. We observed several to be full but with no gas pressure and no venting.

Problems noted with one old tank and its venting to house - this was corrected with vent pipe.

In boiler room (2) 25 gal. drums to be inspected. One (1) drum is vented.

32.5 gal. venting hydrate - venting to atmosphere.

One 25 gal. venting to atmosphere.

One 25 gal. venting to atmosphere.

Rev 8/88

II, III

Contact: _____
 Title: _____
 Signature: _____

Inspector: _____
 Signature: _____

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name Crowley Maritime Today's Date ___/___/___

II.A BUSINESS PLANS (Title 19)

- ___ 1. Immediate Reporting 2703
- ___ 2. Bus. Plan Stds 25503(b)
- ___ 3. RR Cars > 30 days 25503.7
- ___ 4. Inventory Information 25504(a)
- ___ 5. Inventory Complete 2730
- ___ 6. Emergency Response 25504(b)
- ___ 7. Training 25504(c)
- ___ 8. Deficiency 25505(a)
- ___ 9. Modification 25505(b)

Site Address 321 Embury Ave

City Oakland Zip 94606 Phone _____

___ MAX AMT stored > 500 lbs., 55 gal., 200 cft.?

Inspection Categories:

- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ___ III. Underground Tanks

II.B ACUTELY HAZ. MATLS

- ___ 10. Registration Form Filed 25533(a)
- ___ 11. Form Complete 25533(b)
- ___ 12. RMPP Contents 25534(c)
- ___ 13. Implement Sch. Req'd? (Y/N)
- ___ 14. OffSite Conseq. Assess 25524(c)
- ___ 15. Probable Risk Assessment 25534(d)
- ___ 16. Persons Responsible 25534(g)
- ___ 17. Certification 25534(f)
- ___ 18. Exemption Request? (Y/N) 25536(b)
- ___ 19. Trade Secret Requested? 25538

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

I was told by John Dunn informed me that this site is no longer used for storing materials. I understand that an annual leak interlock test has not been performed recently (past year). This tank needs to be either permitted or removed. At least 2 additional tanks exist adjacent to the 1st tank. John informed me that regarding the 1200 gal above ground storage cleaning container. A sample of this material has been collected for analysis. The sample was taken from above the material will be transferred into the sanitary sewer system. Behind the materials warehouse is a metal drum with some liquid material and solid up almost rocky material. This material must be properly disposed or utilized properly.

III. UNDERGROUND TANKS (Title 23)

- General
- ___ 1. Permit Application 25284 (H&S)
 - ___ 2. Pipeline Leak Detection 25292 (H&S)
 - ___ 3. Records Maintenance 2712
 - ___ 4. Release Report 2651
 - ___ 5. Closure Plans 2670

- Monitoring for Existing Tanks
- ___ 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
 - Semi-annual groundwater
 - One time soils
 - 3) Daily Vadose
 - One time soils
 - Annual tank test
 - 4) Monthly Groundwater
 - One time soils
 - 5) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - Vadose/groundwater mon.
 - 6) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - 7) Weekly Tank Gauge
 - Annual tank testing
 - 8) Annual Tank Testing
 - Daily Inventory
 - 9) Other _____

- ___ 7. Precis Tank Test 2643
 - Date: _____
- ___ 8. Inventory Rec. 2644
- ___ 9. Soil Testing 2646
- ___ 10. Ground Water. 2647

- New Tanks
- ___ 11. Monitor Plan 2632
 - ___ 12. Access. Secure 2634
 - ___ 13. Plans Submit 2711
 - Date: _____
 - ___ 14. As Built 2635
 - Date: _____

Rev 8/88

Contact: John Dunn

Title: _____

Signature: _____

Inspector: _____

Signature: Paul M. Smith

II, III

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name Crawley Moving Firm Today's Date ___/___/___

II.A BUSINESS PLANS (Title 19)

- ___ 1. Immediate Reporting 2703
- ___ 2. Bus. Plan Stds 25503(b)
- ___ 3. RR Cars > 30 days 25503.7
- ___ 4. Inventory Information 25504(a)
- ___ 5. Inventory Complete 2730
- ___ 6. Emergency Response 25504(b)
- ___ 7. Training 25504(c)
- ___ 8. Deficiency 25505(a)
- ___ 9. Modification 25505(b)

Site Address 321 Fremont Blvd

City Oakland Zip 94612 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ___ III. Underground Tanks

II.B ACUTELY HAZ. MATLS

- ___ 10. Registration Form Filed 25533(a)
- ___ 11. Form Complete 25533(b)
- ___ 12. RMPP Contents 25534(c)
- ___ 13. Implement Sch. Req'd? (Y/N) _____
- ___ 14. OffSite Conseq. Assess. 25524(c)
- ___ 15. Probable Risk Assessment 25534(d)
- ___ 16. Persons Responsible 25534(g)
- ___ 17. Certification 25534(f)
- ___ 18. Exemption Request? (Y/N) 25536(b)
- ___ 19. Trade Secret Requested? 25538

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

III. UNDERGROUND TANKS (Title 23)

- General
- ___ 1. Permit Application 25284 (H&S)
 - ___ 2. Pipeline Leak Detection 25292 (H&S)
 - ___ 3. Records Maintenance 2712
 - ___ 4. Release Report 2651
 - ___ 5. Closure Plans 2670

Monitoring for Existing Tanks

- ___ 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
 - Semi-annual groundwater
 - One time soils
 - 3) Daily Vadose
 - One time soils
 - Annual tank test
 - 4) Monthly Groundwater
 - One time soils
 - 5) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - Vadose/gndwater mon.
 - 6) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - 7) Weekly Tank Gauge
 - Annual tank testing
 - 8) Annual Tank Testing
 - Daily inventory
 - 9) Other _____

- ___ 7. Precls Tank Test 2643
 - Date: _____
- ___ 8. Inventory Rec. 2644
- ___ 9. Soil Testing 2646
- ___ 10. Ground Water. 2647

New Tanks

- ___ 11. Monitor Plan 2632
- ___ 12. Access, Secure 2634
- ___ 13. Plans Submit 2711
 - Date: _____
- ___ 14. As Built 2635
 - Date: _____

Comments:

Lower price shop -
 looking at more equipment/parts washer - less weight less
 weight making weight
 solvent tank containing Magnesium - this is not known
 type material.
 (2) tanks 145 gal acetone, nitrogen stored in one tank.
 In chemical shed (3) 55 gal drums degreaser
 1 55 gal acetone 2 145 gal acetone drain ketone
 1 55 gal drum of mineral spirits for 50 part cleaner
 1 55 gal drum 50% 30
 1 55 gal solvent tank used to settle waste
 1 30 gal solvent tank (cleaner / solvent)
 1 55 gal solvent
 gear oil
 steel hulls
 hydraulic fluid
 Diesel engine solvent
 1 55 gal solvent tank used to settle waste or deposit items
 and exchange for non-product or returned for deposit.

II, III

Contact: John Dunn

Title: _____

Signature: _____

Inspector: _____

Signature: _____



Prop: L/L
Pacific Dry Dock
& Repair Co.

PORT OF OAKLAND

June 25, 1991

92 JUL 26 PM 1:25

Mr. George A. Brooks
Manager, Environmental Control
Crowley Maritime Corporation
Crowley Maritime Plaza, P.O. Box 2287
Seattle, WA 98111

Dear George:

**SUBJECT: COMMENTS ON WORKPLANS FOR PACIFIC DRY DOCK & REPAIR
YARD II AND EASTERN PORTION OF YARD I**

The purpose of this letter is to transmit my comments and questions regarding the workplans for the site investigations at 321 Embarcadero and 1441 Embarcadero, Oakland. Some of my comments are applicable to both sites, and others are site specific.

OVERALL COMMENTS

- 1) How will drill cuttings and purge water be stored and handled?
- 2) An Alameda County Flood Control and Water Conservation District permit is required for well installation and soil borings. The District number is (415) 484-2600.
- 3) Has Crowley contacted the San Francisco Bay Conservation and Development Commission (BCDC) regarding the need for a permit? The Port of Oakland has been required to obtain permits for site investigation activities within the 100-foot shoreline band.
- 4) Have these workplans been provided to the County and the Regional Board for their review and comment?
- 5) Many areas in each yard have not been sampled. Results from the first round of sampling suggest that contamination of the yard is widespread. The Port will not consider the characterization of the sites complete until sampling has been conducted throughout the yard, even in locations with no documented sources of contamination.

COMMENTS ON YARD II WORKPLAN

1) Was sample #12 ever analyzed? The workplan says it was taken and held for a WET test, but I couldn't find the analytical results.

2) Samples taken in Area 1 (near Merritt Channel) should be analyzed for Total Petroleum Hydrocarbons (TPH) as well as metals, based on high levels of TPH found in the previous round of sampling.

3) Which monitoring well is going to be the smaller-diameter well, and why?

COMMENTS ON WORKPLAN FOR EASTERN PORTION OF YARD I

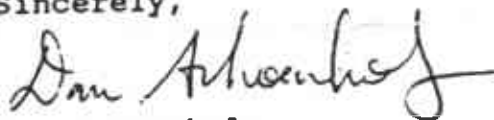
1) The workplan states that the location of sample PDDI-4 was a trap for spent sandblast material. If this is the case, why was no analysis for metals conducted? Area No. 1 should be analyzed for presence of metals associated with sandblasting.

2) In a discussion with John Dunn of Pacific Dry Dock, Mr. Dunn indicated that he had discovered a previously unknown underground storage tank at the SE corner of Yard 1. The workplan should include verification of the tank location and sampling to determine possible contamination of surrounding soils.

3) The workplan states that groundwater samples will be taken using a bailer from the soil boreholes. Why is this method being used as opposed to a well point or a well?

We appreciate the opportunity to review the workplans and look forward to your response. If you have any questions, please contact me at (415) 272-1220.

Sincerely,



Dan Schoenholz
Assistant Environmental Scientist

DS

pc/dspacdry3.1tr/fw3



CROWLEY MARITIME CORPORATION

June 20, 1991

Mr. Barney Chan
Alameda County Health Care Services Agency
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

RE: Pacific Dry Dock & Repair 320 and 1440 Embarcadero, Oakland

Dear Mr. Chan,

As requested in your April 12, 1991 letter, we are submitting work plans for contamination investigation of the eastern portion of Yard 1 and all of Yard 2. Your comments on these plans would be appreciated. Performance of the investigation is scheduled for mid-July.

If any questions arise concerning this matter, feel free to contact me at (206) 443-7882.

Sincerely,

George A. Brooks
Manager, Environmental Control

Enclosure

PACIFIC DIVISION

Crowley Maritime Plaza, Post Office Box 2287, Seattle, Washington 98111 - (206) 443-8100 - Telex 47-40099
101 California Street, San Francisco, California 94111-5875 - (415) 546-2500 - Telex 34-0578
201 Danner Avenue, Suite 200, Anchorage, Alaska 99502 - (907) 349-8551 - Telex 090-25403
Post Office Box 17178, Portland, Oregon 97217-0178 - (503) 283-1244 - Telex 36-0935

PORT OF OAKLAND



91 APR 24 1110:15

April 15, 1991

Mr. Robert Hartsock
Pacific Dry Dock and Repair Co.
321 Embarcadero
Oakland, California 94606

Pacific Dry Dock and Repair Co.
1441 Embarcadero
Oakland, California 94606

Mr. George A. Brooks
Manager, Environmental Compliance
Crowley Maritime Corporation
Pacific Division
2401 Fourth Avenue
P.O. Box 2287
Seattle, Washington 98111

Mr. Robert Andres
Senior Vice President, Administration
Crowley Maritime Corporation
155 Grand Avenue
Oakland, California 94612

Subject: Environmental Contamination at Pacific Dry Dock and Repair Co.'s Leased Facilities at 321 and 1441 Embarcadero, Oakland, California

Dear Gentlemen:

The Port of Oakland recently received a "Site Assessment Report for the Pacific Dry Dock and Repair Yards 1 and 2" ("Versar Report") dated October 2, 1990, prepared by Versar, Inc. for Crowley Maritime Corporation ("Crowley"). We also received a "Work Plan for the Characterization of the Shoreline Sediment at the Pacific Dry Dock and Repair Yards 1 and 2, Oakland, California, dated March 11, 1991, prepared by Versar, Inc. The Versar Report documents high levels of petroleum hydrocarbons, volatile and semi-volatile organic compounds, metals and non-metals in soil and marine sediments at Pacific Dry Dock's leased premises at 321 and 1441 Embarcadero, Oakland. Pacific Dry Dock and Repair Co. ("Pacific") has leased these premises for many years from the Port of Oakland who owns the land.

66 Jack London Square • P.O. Box 2064 • Oakland, California 94604-2064 • Phone (415)444-3188
Cable Address PORTOFOAK. Oakland - Telex 336-334

MEMBER OF THE AMERICAN ASSOCIATION OF PORT AUTHORITIES, INC., THE AIRPORT OPERATORS COUNCIL INTERNATIONAL, INC.
and THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

The Port is very concerned about the contamination of the two sites as referenced in the Versar Report. We appreciate the efforts by Pacific and Crowley to address the sediment contamination on the two sites. These efforts re evident from the correspondence we have seen between you and the California Regional Water Quality Control Board ("CRWQCB"). It is imperative that you also address upland soil contamination and groundwater contamination. We expect that you will, at no cost to the Port, undertake all necessary investigation and clean-up of the two sites, including sediment, soil and groundwater. Under the leases for the two sites, this work should be completed before your termination of the leases and surrender of the premises. This investigation and clean-up should be undertaken with the full involvement and approval of all appropriate regulatory agencies. The Port will require its prior review and approval of all work plans.

Please provide us copies of all other documents containing information concerning the above-described contamination.

Please call me to arrange for a meeting soon with the Port so we can discuss relevant issues, plans and schedules regarding the subject contamination and clean-up.

We hope we can cooperatively work together on this matter. If you have any questions or comments concerning this letter, please contact Joyce Washington of my staff at (415) 272-1217.

Very truly yours,



Henry Kammermeier
Director of Commercial Real Estate

cc: David Barr, Regional Water Quality
Control Board
Barney Chan, Alameda County Department
of Environmental Health
Charles R. Roberts
James McGrath
Thomas D. Clark