

## Department of Toxic Substances Control

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Environmental  
Protection

October 5, 1999

Commanding Officer  
Engineering Field Activity, West  
Naval Facilities Engineering Command  
Attention: Mr. Ernesto Galang  
900 Commodore Drive  
San Bruno, CA 94066-2402

### **AREAS AND OR ISSUES IN NEED OF FURTHER EVALUATION WITHIN SITE 12 AT NAVAL STATION TREASURE ISLAND**

Dear Mr. Galang:

During a meeting on September 17, 1999, attended by representatives of the Navy, US Environmental Protection Agency, the City of San Francisco (City), and the Department of Toxic Substances Control (DTSC), the Navy requested that DTSC provide a comprehensive list of all the outstanding issues that we believe are in need of resolution at Site 12. While the investigations called for here may lead to further investigations not specifically listed here, we have made every attempt to identify all of the outstanding issues that we are aware of and that may not have been included in DTSC's previous comments on the Draft Site 12 Remedial Investigation Report.

The areas in Site 12 in need of further investigation include: Debris Disposal Areas A, B, C, D; the Building 1133 area; the area behind Building 1207 extending to the area behind Building 1205; the area in and around Buildings 1231 and 1233; the Building 1207 and 1209 area; the landfill dump area near the eastern boundary of Site 12; the anomaly located near Building 1244 on Northpoint Drive; and the area in the vicinity of Building 1217 on Mariner Drive.

In addition to the investigation of the debris disposal areas listed, issues related to groundwater and its associated beneficial uses will need to be resolved. To the extent that there are existing state statutes and regulations that are applicable or relevant to cleanup at Site 12, including those administered by the California Integrated Waste Management Board, compliance must be fully addressed in final remedy.

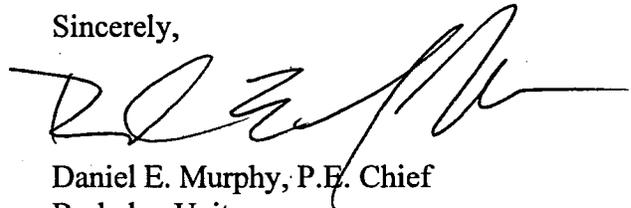
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For each of the areas listed, DTSC requests that the Navy provide written documentation of already completed investigations that will obviate the need for further evaluation, or present a proposal and schedule for completing investigations of the listed areas. Proposals must include a complete sampling and analysis plan prepared pursuant to existing DTSC and US EPA guidance. Data quality objectives, health and safety plans (including, but not limited to, contingency evacuation plans for residents near trenching and boring activities - particularly in the Mariner Drive area), analysis plans detailing constituents to be analyzed, appropriate detection limits, and trench or bore logging proposals are among the elements that must be included. For those areas where you believe that existing information is sufficient to support a determination that no further investigation is necessary, the above noted elements must be present and highlighted in your documentation.

You should additionally be aware that all of the areas identified need to be discussed in the Site 12 Remedial Investigation Report in a manner that will allow the reviewer to understand how the Navy has brought, or will bring closure to each listed item.

If you have any questions regarding this letter, please feel free to call me at (510) 540-3772 or David Rist of my staff at (510) 540-3763.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. E. Murphy', with a long horizontal flourish extending to the right.

Daniel E. Murphy, P.E. Chief  
Berkeley Unit  
Office of Military Facilities

cc: See next page.

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cc: Mr. Chris Maxwell  
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Anju Wicke (TEMI)  
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Pat Nelson  
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ARC Ecology  
Admin Record File (3 copies)  
Michael Bloom (SWDIV)

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**Suspect Debris Disposal Areas Within Site 12 in Need of Further Evaluation:**

Through the review of historical aerial photographs, chemical and lithologic data collected during numerous sampling rounds, and the review of historical and technical reports, DTSC believes that eleven known or suspect debris disposal areas exist within Site 12 that are in need of additional investigation as follows:

Debris Disposal Area A;

Debris Disposal Area B;

Debris Disposal Area C;

Debris Disposal Area D;

Buildings 1207/1209 Area (interim removal already accomplished - waste remaining);

Building 1205/1207 Area

Building 1133 Area;

Mariner Drive near Building 1217;

Building 1231/1233 Area;

Building 1244 Area; and

Landfill Dump Area at the eastern edge of Site 12.

Of these eleven areas, four were previously identified by the Navy and included in the Draft Site 12 Remedial Investigation (RI) Report. The four areas were identified as Debris Disposal Areas A, B, C, D. As the Navy has already committed to further investigation of these areas, DTSC will not elaborate on the need for their additional investigation. However, some of the additional investigation requirements identified for the other areas may apply to areas A, B, C, and D and it is the Navy's responsibility to ensure that all of the areas are addressed in a manner that will eventually allow for the completion of a Feasibility Study and subsequent Remedial Action Plan.

In addition to these four areas, the burn pit in the Building 1207 and 1209 area may warrant an additional investigation to determine the extent of contamination that was left in place after the completion of the interim removal action that occurred during the summer of 1999. DTSC recognizes that the Navy may have gathered sufficient information during the removal action to define the nature and extent of contamination, however, until that information is presented, DTSC is not able to conclude that the site has been adequately characterized.

In addition to these eleven areas, two other areas are identified that are not suspect debris disposal areas, but that nonetheless are in need of additional investigation due to the possible presence of surface spills of hazardous substances, as follows:

Former Storage Yard (Keppler Court); and

Building 1232 Area.

In discussing these areas, DTSC has attempted to identify all of the area specific issues needed to achieve closure. However, three additional issues exist for all of the areas within Site 12. During a previous Navy investigation, asbestos was detected in two of the debris disposal areas and as a result, asbestos should be included as a potential contaminant of concern when investigating all of the areas within Site 12. Also, each of the areas will need to be evaluated as a potential groundwater contamination source that may be impacting the bay. DTSC recognizes that some of the debris disposal areas have monitoring wells down gradient from the known contamination. However, DTSC believes that an evaluation, including collection of data from down gradient wells, of each individual debris disposal area is needed in order to insure that none of them are serving as a groundwater contamination source that may be impacting the bay. Finally, the potential for soil gases entering buildings from contamination in the near surface soil environment must be evaluated and soil gases must be measured where appropriate.

Based on the review of information collected to date, DTSC provides additional detail on our rationale for determining the need for additional investigation. (Please note that the Buildings 1207/1209 area is not included in the following list but as mentioned previously, is possibly in need of an additional investigation to define the nature and extent of contamination associated with this area).

### Building 1133 Area

The Building 1133 area was previously investigated by the Navy as a suspect debris disposal area due to the presence of contaminants detected during prior sampling rounds and a review of historical photographs. In an attempt to define the lateral extent of contamination, the Navy conducted exploratory trenching on all sides of the building. The trenches were advanced, on average, to a depth of five feet but no attempt was made to determine the vertical extent of contamination when it was encountered. The Navy collected samples from selected exploratory trenches, based on visual indicators such as stained soil and burned debris, and analyzed the samples for a wide range of constituents, including dioxin.

The sampling results from the exploratory trenching investigation indicated that contaminants were present at concentrations that warranted further evaluation (Lead, motor oil, and diesel were the constituents primarily detected at elevated concentrations). During the investigation, materials suspected of being asbestos were also observed in some of the trenches. As a result, the Navy collected and analyzed some of the debris for asbestos and the sampling results confirmed its presence.

The Navy decided to excavate the debris that was discovered in the area of Building 1133. DTSC understood that, at the time that the Navy took this decision, the Navy believed that this action was consistent with the Federal Facility Site Remediation Agreement (FFSRA) as an emergency removal. DTSC did not and does not concur with that assessment. Further, DTSC did not agree that no further investigation or remedial action would be required after the excavation was completed. We were clear that, prior to final "closeout" of the Building 1133 area, the Navy would need to demonstrate that the remedy is in fact final pursuant to the National Contingency Plan. Finally, DTSC noted that if waste was to remain in place, then institutional controls would be required.

In the absence of complete characterization of the nature and extent of contamination in the area surrounding Building 1133, the Navy further decided to limit the lateral extent of the excavation based, among other considerations, on physical objects such as roads, fences, and Building 1133 itself. The Navy also decided that it would limit the excavation to a depth of four feet, a depth that is consistent with the water table in this area at low tide. When physical objects were not present to define the excavation boundary, visual observations of debris were relied upon to make decisions on the excavation boundary. The Navy also decided not to take confirmation samples from the floor and sidewalls of the excavation, and did not prepare a plan for such sampling and analysis.

During the excavation, DTSC staff were present to observe the excavation, and noted the presence of stained soil throughout the excavation area behind Building 1133 at a depth of four feet. DTSC staff also noted a layer of stained soil approximately four to six inches thick that was approximately three inches beneath the interface of the soil and the foundation of 1133, and that ran the entire length of the building. During a subsequent site visit after the excavation was backfilled, DTSC staff observed stained soil and burned debris at the surface along the perimeter of the excavation near the perimeter road fence.

As the excavation moved south and east around the southern end of Building 1133, debris was continually observed near the surface. While on site, the Navy contractor performing the removal confirmed that the debris in the area around the southern end of the building was being found at the surface. When DTSC staff questioned the Navy representative about how the boundaries of the excavation were determined, the Navy representative indicated that the Navy was only relying on visual observations by the removal contractor.

Based on our observations during the excavation, DTSC believes that debris was left in place, and that the extent of that debris and concentrations of constituents likely present in the debris has not been sufficiently defined to allow for the assessment of risk to both human and ecological receptors. Therefore, DTSC believes that additional information in the form of data from samples taken at the site will be required to characterize the nature and extent of contamination. Only then can the area around Building 1133 be evaluated to allow for the completion of the Site 12 RI and subsequent development of a Feasibility Study and Remedial Action Plan.

#### Area Behind Building 1207 Extending to the Area Behind Building 1205

During the summer of 1999 a removal action was conducted by the Navy to remove contamination associated with a former burn pit located between Buildings 1207 and 1209. As the removal action progressed, field observations led to expansion of the size of the excavation area, and eventually encompassed the area behind and to the far eastern edge of Building 1209.

Prior to the excavation the Navy and the regulatory agencies agreed that the excavation boundary would continue to be stepped out until confirmation sampling revealed that the contamination in a given side-wall was below a predetermined action level. After advancing the excavation to the rear of Building 1207, the side-wall was sampled and the analysis indicated an average concentration below the action level. For this reason, the removal did not advance any further west behind Building 1207. However, in a discussion with the Navy contractor responsible for conducting the removal action, DTSC staff learned that

stained soil was present in the sidewall behind Building 1207 from which the samples were collected. DTSC also learned that the contamination associated with the former pit could quite possibly extend behind Building 1207 to the west.

A separate exploratory trenching investigation in the area around Building 1205 indicated the presence of lead and motor oil at elevated concentrations and a review of the historical photographs also indicates that disposal activities may have occurred in this area.

Because contamination was discovered in the area behind Building 1205 and the lateral extent of the former burn pit was not conclusively defined behind Building 1207, DTSC believes that additional investigation of this area is warranted.

#### Area on Mariner Drive in the Vicinity of Building 1217

This area was suspected due to information contained in a document entitled "Soils and Foundation Investigation for Appropriated Fund Quarters Fiscal Year 1966, at U.S. Naval Station Treasure Island San Francisco, California". The report recorded soils and foundation investigation information for the construction of housing and also identified areas where debris was encountered during trenching and boring activities. The 1966 soils report identified three trenches and one boring near Buildings 1202, 1217, 1228, and 1219 as containing debris. The report also makes a recommendation to excavate the top two feet of debris disposal areas, prior to housing construction, and to then mix the excavated debris with clean sand and then redistribute the mixture. This indicates that when debris was encountered it was evaluated from a construction engineering standpoint and was likely not evaluated as a potential health threat and that the contamination was probably left in place.

Chemical data has also been collected in this area and suggest that at a minimum, heavy metals and petroleum contaminants are present in the soils near these buildings. DTSC believes that the data collected to date is not conclusive and that additional data is necessary in order to determine if debris disposal occurred in this area that could pose a health risk to the residents.

#### Buildings 1231 and 1233 Area

This area was recently investigated by the Navy by means of exploratory trenching. As a part of that investigation, samples were collected and the data indicate the presence of both lead and polyaromatic hydrocarbons above screening levels. The associated boring logs for this area indicate the presence of debris by noting such things as burned wood, glass, brick, wire, metal, and stained soil.

Because chemical data and visual observations indicate the presence of

contamination in the area surrounding Buildings 1231 and 1233, DTSC believes that further investigation of this area is warranted.

#### Landfill Dump Area at the Eastern Edge of Site 12

A contour drawn on Figure 3-2 of the Draft Site 12 RI Report indicates that a small portion of a historical landfill was located at the eastern edge of Site 12. The larger portion of the landfill appears to have been located on Site 06, the former fire training school, and has not previously been investigated as a former landfill.

During previous investigations, only one sample has been collected within the area in Site 12 identified as the former landfill. The data indicates that motor oil was detected at a concentration of 700 milligrams per kilogram (mg/kg) at 1.5 feet.

Because only one sample has been collected in this area, DTSC believes that additional information is necessary in order to evaluate whether this area was previously used as a landfill area.

#### Anomaly Behind Building 1244 on Northpoint Drive

The "Volume I Preliminary Risk Assessment Field Work Plan for Naval Station Treasure Island" dated August 17, 1990 referenced a Ground Penetrating Radar (GPR) survey that identified an anomaly behind Building 1244 on Northpoint Drive. As a result of the GPR survey, it was recommended that three soil borings be advanced in the area of the anomaly. One in an area of apparently undisturbed subsurface, one in an area of apparently moderately disturbed subsurface, and one in an area of apparently highly disturbed subsurface. The two borings advanced in the anomaly did not reveal constituents of concern above screening levels. However, due to the extreme heterogeneous nature of debris encountered in Site 12, DTSC believes that the two samples collected were not enough to conclude that debris was not disposed of in this area. Therefore, DTSC believes that further investigation of this areas is warranted to determine if debris was disposed of in the vicinity of Building 1244.

#### Former Storage Yard

A former materials storage yard was identified on a historical aerial photograph that was adjacent to and within Site 12 near Debris Disposal Area A. DTSC recognizes that the Navy is in the process of investigating this area and is hereby reiterating the need to investigate the former storage yard that was also a portion

of Site 12.

Building 1232 Area

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and benzo(k)fluoranthene have been detected in one soil boring near Building 1232, at a depth of 3.25 feet, at concentrations above their respective Preliminary Remediation Goal levels. DTSC believes that the contaminant concentrations and the depth at which they were detected represent a potential uncharacterized release and that further evaluation of this location is necessary.