STATE OF CALIFORNIA PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
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TREASURE ISLAND
SSIC NO. 5090.3.A

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File No.: 2169.6013(BMS)

Ernesto M. Galang
Code 1813EG
Western Division
Naval Facilities Engineering Command
P.O. Box 727
San Bruno, CA 94066-0720

Subject: Naval Station, Treasure Island, Final Remedial Investigation/Feasibility Study, Field Sampling Plan

Dear Mr. Galang:

The staff of the San Francisco Regional Water Quality Control Board (SFRWQCB) has completed its review of the above document that was received in our offices on November 6, 1991. The following are general and specific comments that should be considered.

GENERAL:

1. There is no place where the specific types of sample containers to be used for each kind of analysis is referenced. Table 3 should be modified to show the types of containers, glass or plastic, to be used for each analysis. The field manager must deduce this information by process of elimination rather than by being able to consult a single table.

2. The Standard Operating Procedure (SOP) for Surface Water and Sediment Sampling (number 10) is inadequate and in several places, in violation of proper sampling protocol. This SOP should be revised to conform with proper technique.

3. Maps of the storm drain and sewer systems should be provided in the Field Sampling Plan. As the storm drain study is currently outlined, there is no way to distinguish the effects of storm water runoff from effects of near-shore activities, such as direct disposal of contaminants into the Bay. In addition, sampling of surface water, as currently outlined, will not distinguish concentrations of contaminants from storm water runoff from those contributed by other sources in San Francisco Bay.

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SPECIFIC:

1. p. 9: What will happen if free product is found in monitoring wells?

2. p. 10: Section 4.4.2, paragraph 2: Change "surged" to "purged".

3. p. 12: Section 4.4.3, item 4): Modify the sentence to read: "The pH, conductivity, turbidity, and temperature of the purged water will be measured...The pH, conductivity, turbidity, and temperature of the sampled water will be measured immediately."

4. p. 12: Section 4.4.3, item 6): The type of sample container, glass, plastic or teflon, should be specified.

5. p. 12, Section 4.5: Change "analgene" to "a nalgene".

6. p. 13, Section 4.5: Reference to SOP should also include number 10.

7. p. 17, Section 4.9: The specific matrix to be used for soil and sediment should be specified, e.g., marine sediments MESS or BCSS.

8. p. 21, Section 4.11.2: Containers for water samples should be prelabelled to avoid loss or smearing of labels on wet containers.

9. p. 25, Section 5.5: Modify the sentence to read: "number, locations, and soil sample analytical parameters will be selected following review of the current environmental assessment activities and discussions with regulatory oversight staff.

10. p. 26, Section 5.7: Modify the sentence to read: "The objective of sampling... 4,4'-DDT and lead contamination..."

11. p. 28, Section 5.12: Modify the sentence to read: "if the presence of contaminants in sediments results from the discharge..."

12. p. 28, Section 5.12: Modify the column heading to read: "Storm Water Samples".

    This sampling plan does not address the possibility that the outfalls to be sampled are under water.

13. p. 29, Section 5.12, last sentence: Modify the sentence to read: "The storm water samples will be collected from flowing outfalls, if possible."

14. p. 31, Section 5.19: The use of a grab surface sample of sediment may not provide information about contamination of off-shore sediments because past practices using bottomless DONUTs have been discontinued. It is more appropriate to use core sampling and perform analyses on stratified samples, e.g., 0 to 0.5 ft, 0.5 to 1.0 ft, 1.0 to 2.0 ft, and 2.0 to 3.0 ft.

15. SOP 1, p. 1-3: A bullet should be added between the third and the fourth reading: "The specific method for field analytical measurements and the selection of field analytical equipment.

SOP 1, p. 1-11: Procedure "F" should be modified to read: "Samples shall be taken to record necessary field data. Samples should be collected..."

SOP 1, p. 1-13: Field filtration of water samples is not recommended.

16. SOP 4, p. 4-2, Section 1.1: To what site does the "Industrial Excess Landfill" refer?

SOP 4: This SOP does not present the proper techniques for cleaning and decontaminating sediment sampling equipment, including the preparation of precleaned gravity- or hand-corer polycarbonate or butyrate liners.

17. SOP 8, p. 8-1, Section 2.1, paragraph 3: Modify the sentence to read: "tape (black electrical tape is not to be used for this purpose)."

18. SOP 10, p. 10-1: No provision is made for the possibility that the storm water outfalls to be sampled may be <u>under water</u>. Bucket-type dip samplers are not appropriate for outfalls that will be underwater for most, if not all, of the sampling period. Surface water samples collected by the method described would not give information about the storm drain runoff. There is no way of distinguishing pollutants from sources other than TI if the water samples are taken from the surface water near a boat in the bay near the outfalls. Thus, samples should be taken from within the storm drain system, as close to the outfall as possible.

SOP 10, p. 10-2: The field technician is directed to "[r]emove the bottle from the water, perform field measurements (if required), add the proper preservative, and cap. The implication is that the various probes for field measurements will be placed in the sample. This is definitely <u>not</u> good field technique because it can result in <u>contamination</u> of the sample!

SOP 10, p. 10-3: Pipe dredges are not appropriate sampling

tools for the environment in which the sediment samples are to be taken. The SOP should contain detailed information about the type of equipment to be used for each task, e.g., the grab sampler or gravity corer, including proper cleaning and decontamination procedures.

19. SOP 12, p. 12-1, Section 2.1: Modify the sentence to read "at a rate substantially higher than will be used during well purging..."

    SOP 12, p. 12-2, Section 2.2: "Backwashing" is not an appropriate method of well development for the types of geologic formations that may be encountered at the proposed monitoring well sites.

    SOP 12, p. 12-4, Sections 2.4 and 2.5: "Jetting" and "air lifting" are not appropriate methods of well development for the types of geologic formations that may be encountered at the proposed monitoring well sites.

    SOP 12, p. 12-5, Section 2.6: The last sentence of the section should be modified to read: "...when pH, temperature, turbidity, and specific conductivity have stabilized."

20. SOP 11, p. 4, Section 2.2, Procedures, Item 3: Modify the sentence to read: "the distance from fixed structures".

    SOP 11, p. 5: The core catcher, presented as "optional", is an essential component of the coring device because it prevents the loss of more loosely consolidated sediments from the core liner. In sediment sampling, the core catcher is not optional, but necessary.

    SOP 11, p. 6, Section 2.3, Procedures, Item 4: This item mentions the use of a precleaned corer but does not mention the use of precleaned core liners or the procedures for cleaning core liners before use.

21. SOP 43: This SOP should be modified to include field measurements of turbidity.

22. Table 1, p. 3: Modify "extenet" to "extent".

23. Table 3, p. 2: Modify Table 3 to include field measurements of temperature and turbidity.

24. Figure 19: The water sample associated with sample 6 should be labelled "SW013-006".

25. Figure 20: The water sample associated with sample 10 should be labelled "SW013-010".

If you have questions or comments, please call me at (510) 464-4222.

Sincerely,

Barbara M. Smith
Toxics Cleanup Division

cc: ADMN RECORD (3 copies)