



May 28, 2008  
Project 4850.005.3

Mr. James B. Sullivan  
Mr. Charles Perry  
Mr. James Whitcomb  
Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
1455 Frazee Road, Suite 900  
San Diego, CA 92108-4310

Subject: Comments on May 6, 2008 Draft Scoping Survey Report for Building 233  
Drain Lines and Wall Vents  
Building 233, Naval Station Treasure Island  
San Francisco, California

Dear Mr. Sullivan, Mr. Perry and Mr. Whitcomb:

On behalf of the Treasure Island Development Authority (TIDA), Geomatrix Consultants, Inc. (Geomatrix) and Mr. Tom Widner from ChemRisk have reviewed the May 6, 2008 Draft Scoping Survey Report for Building 233 Drain Lines and Wall Vents (Draft Scoping Survey Report for Building 233). The document summarizes the results of a scoping survey conducted by the Navy to assess whether residual contamination associated with a 1950 spill of radium sulfate in Building 233 is present in drains and vents associated with this building. The survey identified radiologically impacted sediment inside cast iron drain piping near the northeast side of Building 233 and the document recommends that the piping be removed and fully surveyed when the building is demolished during redevelopment.

General comments from Geomatrix are provided below and additional comments from Mr. Widner are presented in the attached letter.

#### GENERAL COMMENTS

- ***Navy Recommendation that Radiologically Impacted Piping be Removed and Fully Surveyed during Building Demolition.*** On behalf of TIDA, we request that the radiologically impacted piping be removed and surveyed by the Navy as soon as possible, rather than waiting until future building demolition before conducting the work. If it is necessary to demolish the building to access the drain piping for surveying and removal, TIDA would prefer that the Navy proceed with demolition as soon as possible, so that the drain piping can be fully evaluated and removed. TIDA has no plans to use the building in the future. Based on photographs presented in Appendix E, it appears that the cast iron piping is accessible near the outside of Building 233 and/or in the crawl space beneath the



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building. We are concerned that the impacted drain piping could be accessible to the public. As you are aware, abandoned buildings at TI have attracted vandals who have removed metal for salvage value. As such, the cast iron drain piping may be subject to such activity. Even if the drain piping can be secured in such a way as to prevent any potential access, TIDA prefers that the contaminated piping be fully evaluated and removed by the Navy prior to transfer.

- ***Elevated Levels of Gamma Radiation Measured in Parking Lot Surrounding Building 233.*** Sections 3.5 and 7.3 of the Draft Scoping Survey Report for Building 233 indicate that elevated levels of gamma radiation were measured in the parking lot surrounding Building 233, but there is no further discussion about the significance of this finding. Based on review of the data presented in Table 3-1 (See ChemRisk comment number 1), we believe these elevated measurements warrant further evaluation to assess (1) whether radiological contamination exists beneath the parking lot, and (2) whether the elevated radiation levels pose a risk to human health. Is the area with the elevated levels of gamma radiation currently accessible to the public? If so, we request that the area be immediately secured until the aforementioned evaluations have been completed.
- ***Evaluation of Soil Beneath Building 233.*** As ChemRisk has previously indicated in comments submitted on behalf of TIDA dated January 8, 2007 and March 17, 2007, we believe that it is necessary to survey soil beneath the crawl space beneath Building 233; contamination could have been washed onto this soil during the 1950 decontamination activities. The recent finding of elevated gamma radiation in the parking lot surrounding Building 233 increases our level of concern about the potential for soil beneath the building to be contaminated. In the Navy's Response to Comments (RTC) contained in the August 2007 Final Radiological Work Plan (Appendix D), the Navy indicated that sampling of soil beneath the building would be conducted during the Final Status Survey (FSS). The RTC further stated that when the building is demolished, the owner may be required to do an additional soil survey. On behalf of TIDA, we request that the Navy thoroughly evaluate soil beneath Building 233 and, if necessary, completely remediate impacted soil so that there are no future obligations for TIDA to conduct soil surveys. If it is necessary to demolish the building to survey the soil beneath it, TIDA would prefer that the Navy proceed with demolition as soon as possible, so that the Navy can thoroughly evaluate the soil and, if necessary, conduct remediation. As indicated above, TIDA has no plans to use the building in the future.
- ***Demolition of Building 233.*** In the Navy's RTC contained in the August 2007 Final Radiological Work Plan, the Navy stated, "*The Navy plans to put restrictions on Building 233 in future transfer or deed documents that will stipulate that Building 233 shall not be*



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*re-inhabited. There are no plans by the Navy to demolish Building 233, but the Navy is planning to do an FSS and remediate any contamination found greater than the building debris disposal requirements....It appears from the present Treasure Island Development Authority reuse plans that Building 233 will eventually be removed."* Because some radiological contamination has been found inside Building 233, inside the drain piping associated with this building, and potentially beneath the parking lot surrounding this building, and because of the need to thoroughly evaluate soil beneath Building 233, we believe it is prudent for the Navy to consider demolishing Building 233 so that all radiological contamination can be thoroughly evaluated and remediated prior to transfer.

We appreciate the opportunity to review the Draft Scoping Survey Report for Building 233. Feel free to contact me if you have any questions.

Sincerely yours,  
GEOMATRIX CONSULTANTS, INC.

Gary R. Foote, P.G. #5044  
Principal Geologist

GRF/jrh

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GMX.doc

Attachment: ChemRisk letter to Gary Foote, May 22, 2008

cc: Mr. Jack Sylvan, City and County of San Francisco  
Mr. Michael Tymoff, City and County of San Francisco  
Ms. Mirian Saez, Treasure Island Development Authority  
Mr. Marc McDonald, Treasure Island Development Authority  
Mr. Ryan Miya, Cal EPA Department of Toxic Substances Control  
Ms. Christine Katin, U.S. Environmental Protection Agency  
Mr. Paisha Jorgensen, Cal EPA Regional Water Quality Control Board



May 22, 2008

Gary Foote  
Vice President and Principal Geologist  
Geomatrix Consultants, Inc.  
2101 Webster Street, 12<sup>th</sup> Floor  
Oakland, CA 94612

Subject: Review of Draft Scoping Survey Report for Building 233 Drain Lines and Wall Vents dated May 6, 2008.

Dear Mr. Foote:

I have been retained to review the "Draft Scoping Survey Report for Building 233 Drain Lines and Wall Vents, Naval Station Treasure Island, San Francisco, California" dated May 6, 2008

I offer the following comments and questions:

1. My most important comment deals with the lack of any discussion of the elevated gamma count rates measured in the parking lot. The fact that elevated count rates were measured at 13 locations is stated, but then nothing is said about the significance of those findings or to put those values into perspective. The authors state that the building's piping is a closed system, so radiological contamination found in it poses no hazard to the public. But nothing is said about whether the contamination in the parking lot poses a hazard or whether or not steps have been taken to further characterize the nature of the contamination or to prevent unauthorized access to the contaminated areas. It is not clear why the investigators are not concerned about that contamination, which is up to 12 times background.
2. Section 5.2.3 presents a background count rate for the sodium iodide detector used for surveying drain lines. It would be helpful to know the standard deviation of that background count rate, or the count rate in the reference area if that is from a different location, so that the count rates measured in the parking lot can be evaluated against the investigation level for gamma radiation surveys (mean + 3 $\sigma$ ).
3. Section 6.2.2 discusses the decision that is being addressed. It would be good to explain why the decision addresses only alpha-emitting radioactivity. Were simplifying assumptions made based on anticipation that Ra-226 would be the most important radionuclide encountered? How will the beta and gamma "inputs to the decision" be used? What exactly was accepted as the null hypothesis?
4. Regarding Section 6.2.6; how do the concepts of Class I and Class II survey units apply here? It does not appear that 100% surveying was conducted of any "units."
5. Regarding Section 6.2.8: Was no analysis conducted of the data from the parking lot surveys, which are not mentioned here?

6. In Table 7-2, for results that are marked as "not detected," what do the numerical values that are presented represent? Are they detection limits determined *a priori* or results calculated for the actual samples?
7. Regarding the photographs in Appendix E, it would be helpful if the location and orientation at which each photo was taken were identified.
8. It does not appear that the boards placed over the cutouts in the building's foundation (see Photograph 092707\_001) can be counted on to preclude access to the contaminated areas. Are these areas and the contaminated areas of the parking lot fenced off?

Please contact me if you have any comments or questions about my review or the information contained in this letter. I can be reached at (415) 618-3207 or by e-mail as [twidner@chemrisk.com](mailto:twidner@chemrisk.com).

Respectfully,



Thomas Widner, M.S., C.H.P., C.I.H.  
Principal Health Scientist