



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA

December 27, 2017

George ("Pat") Brooks
US Department of the Navy
33000 Nixie Way, Bldg 50
San Diego, CA 92147

Dear Mr. Brooks:

Thank you for providing for review the *Draft Radiological Data Evaluation Findings Report for Parcels B and G Soil* ("Report"), Former Hunter's Point Naval Shipyard (HPNS), September 2017. The U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and the California Department of Public Health (CDPH) have independently reviewed this report in detail with a technical team including national experts in health physics, geology, and statistics, and EPA's comments are attached.

In Parcel B, the Navy recommended resampling in 15% of soil survey units in trenches, fill, and building sites. EPA, DTSC, and CDPH found signs of potential falsification, data manipulation, and/or data quality concerns that call into question the reliability of soil data in an additional 76% of survey units, bringing to 90% the total suspect soil survey units in Parcel B. (These do not add exactly due to rounding) In Parcel G, the Navy recommended resampling 49% of survey units, and regulatory agencies recommended 49% more, for a total of 97% of survey units as suspect.

Below are examples of observed forms of potential falsification, data manipulation or data quality concerns identified in reviews by EPA, DTSC, and CDPH:

- In Parcel G, in nearly a third of trench units, gamma scans of soil surfaces after excavation showed a need for further biased soil samples to be collected, but they were not.
- In Parcel G, out of the 43 trench units that the Navy had not already recommended resampling:
 - Over half had inconsistencies between gamma scan and static data and over one-third had other types of inconsistencies (e.g. on-site and off-site lab results differ by more than 10 times, plots showed signs that multiple sources of soil were likely in the data set, etc.)
 - In a third, the narrow range of gamma static data indicates measurements were not collected from different locations, as required.
 - In six, some data were missing so some evaluations could not be done.
 - In a few trench units, biased sample results appeared lower than other data sets. Biased samples are supposed to be collected in locations of highest scan results, so they would be expected to be higher, not lower, than other data sets collected in random locations.
 - Other concerns were found through data evaluation, and most trench units showed red flags of multiple types.
- In Parcel B, in some samples, the weights recorded for the onsite lab differed significantly from that recorded for what should be the same sample sent to the offsite lab.

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- Generally, data from Parcel B trench units show fewer examples of signs of deliberate falsification, but they show more frequent examples of data quality concerns. For example, a quarter of trench unit reports were missing gamma scan and static data. Many lab results were zero or negative numbers.

In summary, the data analyzed demonstrate a widespread pattern of practices that appear to show deliberate falsification, failure to perform the work in a manner required to ensure ROD requirements were met, or both.

We look forward to working with the Navy to scope out and begin the sampling component of the radiological assessment effort as soon as possible. If you would like to discuss any of these comments, please contact me at 415-972-3005 or chesnutt.john@epa.gov. You may also contact Lily Lee, Remedial Project Manager, on my staff at 415-947-4187 or lee.lily@epa.gov.

Sincerely,



John Chesnutt
Manager, Pacific Islands and Federal Facilities Section
Superfund Division

Attachments

cc: Julie Pettijohn, DTSC
Sheetal Singh, CDPH
Alec Naugle, California Regional Water Quality Control Board
Amy Brownell, San Francisco Department of Public Health