UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, California 94105

December 14, 2016

Laura Duchnak, Director
Base Realignment and Closure Program Management Office
U.S. Department of Navy
33000 Nixie Way
San Diego CA 92147

Dear Ms. Duchnak:

We write to provide our recommendations on actions the Navy should take to rebuild confidence in the cleanup process at the Hunters Point Naval Shipyard Superfund site, San Francisco, California, as questions have been raised about the radiological cleanup work by Tetra Tech EC, Inc. As you know, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the site's Federal Facility Agreement establishes the Navy as the lead agency on cleaning up Hunters Point, with the EPA and the State of California in oversight roles. Ultimately, we need to demonstrate that "all remedial action necessary to protect human health and the environment … has been taken before the date of [any] transfer" of property, as required by Section 120(h)(3) of CERCLA. Therefore, the Navy's technical review needs to be comprehensive and holistic to scientifically address protectiveness questions.

In addition, proactive and transparent community involvement will be key to address public confidence in the scientific review and its conclusions. The Navy's latest *Community Involvement Plan* affirms that it "is committed to keeping the community engaged in the environmental cleanup program" at the site and states: "Public involvement in the cleanup process results in a better outcome and a more robust cleanup." EPA strongly supports these principles.

We appreciate you moving forward with the Navy efforts to hire a third party independent contractor to review radiological work conducted by Tetra Tech EC, Inc., at the Shipyard. I understand that this scientific review will determine what aspects of that work require additional assessment, such as extra sampling. The additional assessment will begin after regulatory approval of the work plan. As you requested, EPA is providing recommendations for the scope of work for the technical evaluation and community involvement. As we have discussed, we want to create an efficient and technically sound process to enable a thorough and timely resolution of outstanding issues identified. Below and attached are key elements of EPA recommendations to date.

Technical evaluation recommendations include the following:

- Review records for the entire history of Tetra Tech EC, Inc., radiological work at the Shipyard basewide, including areas already transferred. Re-sample in priority areas of uncertainty, especially in areas of greatest concern based on health risk.
- Where allegations have been made regarding specific locations on the site, research site records and, where potential health risk is uncertain, sampling and/or scanning should be conducted in those areas.
- Evaluate inconsistencies in prior data in soil and buildings
- Estimate potential health risks to the public from prior misrepresentation of radiological data.

Community involvement recommendations include the following:

- Conduct targeted outreach to key stakeholders that reaches full breadth of community organizations and stakeholder groups.
- Develop routine site update materials to keep community members and key stakeholders informed, and maintain web presence accessible by lay audience from the public.
- Ensure community members have technical capacity to engage with agency representatives on technical issues pertaining to the cleanup.

The attached summary of technical recommendations includes highlights that are appropriate for public disclosure. Under separate cover we will send you the full recommendations that include the enforcement confidential aspects of the scope of evaluation. As circumstances evolve and more information is shared with us, more recommendations may be forthcoming.

I have asked my staff to commit to make ourselves available for regular coordination calls during the evaluation process. These can help ensure mutual understanding of the evaluation and decisions along the way so that our review will be well-informed and focused. We look forward to working with the Navy, California State Department of Toxic Substances Control (DTSC), and other state agencies to ensure protectiveness, transparency, accountability, and substantive public involvement. Please contact me at 415-972-3843 or manzanilla.enrique@epa.gov if you would like to discuss these issues further.

Sincerely,

Enrique Manzanilla
Director, Superfund Division

cc. Mayor Edwin Lee, City and County of San Francisco
Supervisor Malia Cohen, City and County of San Francisco
Tiffany Bohee, San Francisco Office of Community Infrastructure and Investment
Barbara Garcia, San Francisco Department of Public Health
Mohsen Nazemi, State of California Department of Toxic Substances Control
Grant Cope, State of California Environmental Protection Agency

Attachment 1

Summary of USEPA Comments on Technical Evaluation of Tetra Tech EC, Inc., concerns

The Navy has hired a third party consultant to draft a technical memorandum that will propose a workplan for future Navy work needed to address concerns regarding the integrity of Tetra Tech's radiological cleanup work at the Hunters Point Naval Shipyard. EPA has provided the Navy with a detailed write-up of our comments on the proposed list of topics to be addressed by the workplan under development. Addressing the recommendations below and any other issues that may emerge will be important steps to address the credibility of the cleanup. In addition, documenting all areas of inquiry will help us organize the team's analysis, ensure transparency, and ensure public confidence. These areas of inquiry should include (1) anomalous findings in statistical analysis and decisions about next steps on those and (2) regulatory agency recommendations and resolution. Below is a summary of USEPA recommendations. We have also discussed these with our regulatory partner the State of California Department of Toxic Substances Control (DTSC).

1. **Sample basewide, especially in areas of highest potential risk** – Review records for the entire history of Tetra Tech EC, Inc., radiological work at the Shipyard basewide, including areas already transferred. Some records show Tetra Tech EC, Inc., collecting radiological samples as early at 1990, including 1999 Cesium 137 samples significantly above release criteria and removal work before 2006 at a radium dial disposal area and metal debris reef. Due to the uncertainty about locations of potential Tetra Tech misrepresentation, EPA supports sampling at any base-wide that present a concern to assess the credibility of all of Tetra Tech's work on radiological issues. EPA recommends using a health-risk based approach to prioritize areas of concern based on factors that should include, but not be limited to, historical records of activities, current or future exposure based on land uses, sampling results already collected, and combination of highest risk radionuclides. EPA recommends new, independent soil sampling to help clarify the actual human health and environmental risk.

2. **Sample in specific locations of allegations** - Where allegations have been made regarding specific locations on the site, soil samples should be collected and analyzed in those areas. Collect at least ten samples in each of the specific locations. Discuss the work plan with regulatory agencies before proceeding. Inform regulatory agencies of the date and time for resampling so that regulatory staff may conduct site visits to observe and potentially collect split or duplicate samples for independent analysis.

3. **Analyze inconsistencies** - Evaluate all of the sampling data provided by Tetra Tech on radiological issues to assess whether the data are internally consistent. For example, EPA found in the NIRIS database that in Parcel B-2, Parcel G, and other areas, Tetra Tech reported in at least 2006, 2007, and 2008 some areas where concentrations of Lead (Pb) 214 are shown to be higher than Radium (Ra) 226. In some cases, reported concentrations of Bismuth (Bi) 214 are also higher than Ra-226. Because Pb-214 and Bi-214 are decay products of Ra-226, this result would not be expected. Evaluate this inconsistency as well as similar potential inconsistencies in other decay chains. Consider the potential need for new sampling to clarify health risk.

4. **Evaluate Building Scans** – Due to uncertainties regarding previous work done at buildings, e.g. scan speeds faster than workplan specified, address known exceedances of release criteria in Buildings 271 and 406 and the potential for unknown exceedances elsewhere. Review uncertainties about prior scans already performed and perform additional scans where uncertainties cannot be otherwise resolved.

5. **Estimate potential health risks** - To evaluate the potential harm resulting from any and all of the allegations made regarding Tetra Tech's work, discuss and estimate the potential health risk to current and future residents, the public, and construction or other workers that could result from the allegations. Please use the current version of the EPA's Preliminary Remediation Goal (PRG) Calculator to estimate the potential health risk from Tetra Tech EC, Inc., failures to follow workplans. EPA is available to provide technical support regarding the use of the PRG Calculator.

More details regarding specific allegations and EPA's recommendations to evaluate the impacts of those allegations have been provided to the Navy's staff under separate cover. These comments include recommendations aimed at ensuring that public health and the environment are protected and that the public can have confidence in the final assessment. They also include enforcement confidential information.

Finally, we have come to understand that the number of individuals who work on radiological clean-ups and are licensed as radiological technicians is relatively small in the United States, and many of these individuals have long-standing personal and professional relationships with one another. To ensure the credibility and independence of the work of the Navy's review team, it is important that staff and managers involved in this effort do not include former employees of Tetra Tech EC, Inc., (or close relatives of those employees) who could have been involved with previous work at the Hunters Point Naval Shipyard.

Attachment 2

Summary of Community Involvement Recommendations to the Navy from the US EPA Hunters Point Naval Shipyard Tetra Tech EC, Inc., Concerns

The overall objective of the following recommendations is to maximize public confidence in the Tetra Tech investigation process by establishing a consistent flow and transparent exchange of information with the public as the Navy's workplan unfolds. Consistently throughout the process, not just at project milestones, the community is expected to be "brought along" for input and participation with regulators as investigatory processes are established and decisions are made.

EPA appreciates your commitment to develop a "Radiological Community Engagement Communication Plan" for this process. The following elements should be incorporated into that plan, which should be flexible in scope to adjust to dynamic communication needs. We have also discussed these with our regulatory partner the State of California Department of Toxic Substances Control (DTSC).

Recommendation #1: **Ensure community members have technical capacity to engage with agency representatives on technical issues pertaining to the cleanup.**

- A third-party technical advisor should be made available to the community to explain and advise community members about ongoing and forthcoming work.
- The community should be allowed the opportunity to be part of the selection process for the technical advisor, and EPA can share past experiences implementing similar processes elsewhere.

Recommendation #2: **Establish routine community meetings (outside regularly planned community meetings), leverage pre-existing meetings, and provide additional forums for agency representatives to share information and for residents to speak with agency representatives and provide feedback.**

Meeting venues may include, but are not limited to, the following:

- Community meetings hosted by local groups listed in Appendix H of the 2014 *Community Involvement Plan* (CIP)
- The establishment of a HPNS Environmental Cleanup Center staffed for office hours allowing the public to speak with Navy representatives on the Tetra Tech investigation.
- The Mayor's Hunters Point Shipyard Citizen's Advisory Committee
- Routine public meetings co-hosted with DTSC and EPA with presentation and Q&A period.

Recommendation #3: **Develop routine site-update materials, maintain a web presence accessible for a lay audience, and provide "in-language" translations and interpretation services (for in-person meetings) as needed.**

As part of this recommendation, it is requested the following process and planning steps also be implemented to: (1) keep regulatory agencies informed; and (2) aid in ensuring consistent messaging.

- Publication material slated for distribution is expected to be reviewed by participating agencies in advance of distribution. Enough review time should be given to participating agencies for the Navy to incorporate changes and recommendations made by participating agencies.

- Community presentations are expected to be reviewed and practiced with participating agencies in advance of delivery to the community. Enough review time should be given to participating agencies for the Navy to incorporate changes and recommendations made by participating agencies.

- A routine monthly communication schedule for development and dissemination of written material and presentations is expected to be developed to ensure efficient, strategic information-sharing.

Recommendation #4: **Conduct targeted outreach to key stakeholders that reaches full breadth of community organizations and stakeholder groups.**

To ensure consistency and clarity of messages, thorough information dissemination, and inclusive and comprehensive community participation, it is requested the Navy:

- Obtain a third-party risk communicator to develop messages with the team.

- Obtain a third-party public participation practitioner to operationalize messages around key items related to the cleanup and to reach the diverse residents that surround the Shipyard to encourage their involvement in the process.

- Obtain a community liaison from the Bayview/Hunter's Point neighborhood to gather community concerns and both identify and reach local stakeholder organizations

Accepting formal public comment on key documents (*e.g.*, milestone workplans) should also be factored into the Navy's workflow.

Further, as part of outreach, it is also expected that a "feedback loop" process is provided as soon as possible to community members to reflect how feedback from the public (during formal public comment period and other public forums) will be incorporated in the decision-making process.

Recommendation #5: **Develop a pro-active media communications strategy to be incorporated with, but separate from the community engagement facet of, the "Radiological Community Engagement Communication Plan."**

- Media Communication Strategy to be one facet of "Radiological Community Engagement Communication Plan," and will focus exclusively on consistent outreach to media organizations on project progress.

- Said Media Communications Strategy will be implemented concurrently with community engagement plan.