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

April 11, 2019

Laura Duchnak, Director
Base Realignment and Closure Program Management Office
U.S. Department of Navy
33000 Nixie Way, Bldg 50 Suite 207
San Diego CA 92147

Dear Ms. Duchnak:

Thank you, again, for your March 15, 2019, letter. In my March 27, 2019, response, I requested a meeting on April 15, 2019, to further discuss your letter and our proposed approach to moving forward. We appreciate your stated commitment to restoring public confidence and a transparent process. EPA has been reviewing and preparing comments on the Navy's draft final *Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard* (Site), dated November 2, 2018 (*Work Plan*), and the Navy's draft *Five-Year Review (FYR)*[1] for this Site, dated July 9, 2018. The *FYR* should inform the Parcel G *Work Plan*. This letter and enclosure outline a proposed path forward to simultaneously: 1) complete the long-term protectiveness evaluation in the *FYR* and 2) finalize the *FYR* and the *Work Plan* in phases to move strategically forward with the field rework, while allowing for further analysis and discussion among the regulatory agencies in a publicly transparent manner.

Your March 15, 2019, letter proposed to use RESRAD in lieu of EPA's Preliminary Remedial Goal (PRG) Calculator to evaluate the protectiveness of the remedies in the *FYR*. Although we typically recommend use of the PRG Calculator, we can consider other tools through consultation with our headquarters office, in accordance with EPA Guidance.[2] This consultation must include full disclosure of your proposed RESRAD assumptions to facilitate efficient, thorough analysis to ensure the use complies with Superfund regulations and guidance. Introducing RESRAD now will likely delay near-term field rework. In addition, the use of RESRAD would need to be integrated into the protectiveness evaluation of the *FYR*, which would further delay that report. EPA therefore recommends the most efficient approach to finalize the evaluation is for the Navy to resume technical discussions with us about appropriate site-specific parameters to use in the PRG Calculator for soil and buildings.

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1 Five-Year Reviews (FYRs) are required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at all Superfund sites, public and private, where hazardous waste is left in place. They are an important, routine process to assess whether current remedies still protect human health and the environment. FYRs evaluate whether exposure assumptions, toxicity data, remedial goals (or cleanup levels) and remedial action objectives used at the time of remedy selection are still factually accurate and scientifically valid. EPA reports annually to Congress on the status of each FYR.

2 For guidance on this approach, see Q10 and Q16 in the guidance document "Radiation Risk Assessment at CERCLA Sites: Q & A," June 2014. Also see the Federal Facilities Agreement (FFA) sections 6.1 and 7.7b, which includes the Navy's commitment to follow EPA guidance.

Since March 2018, EPA has requested multiple times that the Navy's *FYR* include updated PRG Calculator assessments for different aspects of the Site: A) onsite soil (trenches and building sites), B) current, onsite buildings with a possible future commercial reuse (demolition, industrial, or commercial scenario), and C) current, onsite buildings with a possible future mixed-use, including residential (residential scenario). EPA believes we are close to agreement with the Navy about its conclusions on its draft PRG Calculator assessments for A and B above. However, for C above, the assessment is more complex regarding whether the current remedies would still be protective of human health for future residential use. EPA has not yet received from the Navy a revised draft version of its PRG Calculator assessment for C that incorporates our September 21, 2018, comments. To move forward with the *FYR*, we recommend segregating this buildings issue for further analysis and discussion.

The *FYR* relates to the Parcel G *Work Plan* in important ways. Your letter proposed finalizing the *Work Plan* without considering the initial *FYR* long-term protectiveness evaluation. This evaluation may show that some current remedial goals in the Records of Decision (RODs) no longer protect public health. In that scenario, the Navy would need to go back into the field to re-test and re-cleanup the soil and buildings to a level that protects public health. This approach could potentially waste valuable time and resources.

EPA believes we have identified a path forward to begin soil reference background testing outside Parcel G and the field rework inside Parcel G. This path forward effectively balances the stakeholders' collective interests in public transparency, scientific integrity, and an efficient process, while allowing the Navy to begin rework as soon as possible. To expedite soil field rework, EPA recommends the Navy implement these activities:

- To move ahead with soil <u>reference background testing outside Parcel G</u>, described in Appendix C and other sections of the draft final *Work Plan*, we recommend the following steps:
    - Address the relevant portions of EPA's December 13, 2018, comments on *Work Plan* technical details. Simultaneously, EPA will send additional comments on technical details by April 25, 2019.
    - Issue for regulatory agency review and approval the relevant portions of responses to regulatory agency comments, a responsiveness summary of public comments, and changed pages of relevant portions of the *Work Plan* showing revisions in redline and strikeout.
    - Begin field work outside Parcel G. (At the January 28, 2019, public meeting of the Hunters Point Citizens Advisory Committee, you indicated that you could start field work three weeks after EPA's approval.)
- To move ahead with soil <u>trench and building sites testing inside Parcel G</u>, described in Chapter 3 and other sections of the draft final *Work Plan,* we recommend the following steps:
    - Develop a technical memorandum to supplement the July 9, 2018, draft *FYR* that includes a revised version of the Navy's draft PRG Calculator assessments for A and B above, onsite soil (trenches and building sites) and buildings (commercial scenario). This draft technical memorandum should address additional EPA

comments to be sent by April 25. Issue this technical memorandum for regulatory agency and public comment for 30 days. The final technical memorandum should be submitted to EPA for review and approval, addressing substantive comments received.

- Simultaneously, for the *Work Plan,* address the relevant portions of EPA's December 13, 2018, comments. EPA will send additional comments by April 25. Issue for regulatory agency review and approval the relevant portions of responses to regulatory agency comments, a responsiveness summary of public comments, and change pages with redline and strikeout revisions. Also, make these available to the public. Issue for regulatory agency and public comment the new draft *Radiological Rework Work Plan Addendum* for soil. Address regulatory agency and public comments, integrate conclusions from the above technical memorandum, and submit the soil portions of the draft final *Work Plan* and *Addendum* for final regulatory agency review and approval.

After the Navy has completed these activities and begun field work on the soil reference background testing outside Parcel G, the agencies can work in parallel to resolve any remaining issues related to the buildings rework in the *Work Plan*, including potential consultation about the use of RESRAD. Please see the enclosure for the full path forward.

EPA has committed to the public, including members of Congress and other elected officials, that the rework must proceed with full transparency. Therefore, we invite the Navy to join us in this commitment and provide ample opportunities for public comment on these documents. See the path forward enclosure for detailed information on public comment recommendations.

I look forward to our meeting on April 15, 2019, to discuss your letter and this proposal.

Sincerely,

Enrique Manzanilla
Director, Superfund Division

Enclosure

cc: Grant Cope, California Environmental Protection Agency and
California Department of Toxic Substances Control
Anthony Chu, California Department of Public Health
Dr. Grant Colfax, San Francisco Department of Public Health
Nadia Sesay, San Francisco Office of Community Investment and Infrastructure
Terry Seward, Regional Water Quality Control Board

ENCLOSURE

EPA Proposed Path Forward for Finalizing Five Year Review and Parcel G Work Plan

EPA is encouraged by all of the progress that EPA, the Navy, and the State of California have made in the last two years to address a Navy contractor's data falsification and failure to follow previous work plans at the Hunters Point Naval Shipyard Superfund site (Site). One example of progress is our agreed phased approach for soil to focus on the Parcel G trenches of greatest concern first; then, those results can inform decisions about the degree of excavation for the remaining trenches. While a number of technical and logistical issues have been resolved, we still have not been able to begin field work to retest the areas where the previously collected data are no longer reliable. This enclosure proposes a path forward to field work, while proceeding in a manner that is transparent to the public and all stakeholders.

The Site's *Five-Year Review* is underway at the same time as development of the Parcel G *Work Plan*. The purpose of a Five-Year Review is to determine if the current remedies are still protective of human health and the environment. The evaluation of long-term protectiveness in the *Five-Year Review* relates to the Parcel G *Work Plan* in important ways. Agreement on what levels protect human health is a crucial step to determine the sensitivity of the radiological testing needed for the field work and inform what radiation levels will trigger cleanup in the *Work Plan*.

The Parcel G *Work Plan* currently includes several stages of work for both soil and buildings, independently. These stages include the following:

I. Testing in soil and building reference background locations outside Parcel G
II. Testing in soil (trenches and under/around building sites) and inside buildings inside Parcel G
III. Cleanup, if needed, of any material found above health protective levels

Please note that if cleanup (Stage III) is needed, the *Work Plan* calls for a new round of testing (Stage II) after each round of cleanup (Stage III) until test results meet health protective levels. In addition, EPA recommends ensuring that these cleanup levels result in protectiveness of human health. In performing updated assessments, EPA made these comments to the Navy on earlier drafts of the *Work Plan*:

- "The new work performed under this Work Plan should use cleanup criteria [i.e., health protective levels] that reflect findings of the updated risk evaluations to ensure the protectiveness of the cleanup."[1]
- "Please note that 'Consistent with existing Agency guidance for the CERCLA remedial program, . . . EPA generally uses 1×10^{-4} in making risk management decisions.'"[2]

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1 EPA March 26, 2018, Comments to the Navy on its February 9, 2018, Draft Work Plan: Radiological Survey and Sampling.

2 EPA provided similar language in its August 14, 2018, comments to the Navy on its June 15, 2018, draft Parcel G *Work Plan* and EPA's September 21, 2018, comments to the Navy on its July 9, 2018, draft *Five-Year Review*.

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EPA's PRG Calculator is a tool to assess radiation remedial goals that is scientifically sound and consistent with long-established CERCLA approaches. EPA updates the PRG Calculator as science and policy evolve. For these assessments, the EPA's *Users Guide* for the PRG Calculator stresses the importance of using site-specific parameters (such as legally-enforceable controls on future uses of land and buildings), as opposed to default parameters that may not reflect likely exposures and can provide unrealistic results. EPA has not yet received from the Navy draft PRG Calculator assessments for the use of current, onsite buildings in a residential scenario that incorporate our September 21, 2018, comments. These updated draft PRG Calculator assessments are critical for EPA to expedite review of the *Five-Year Review* and the *Work Plan*.

On several occasions, the Navy has confirmed its use of the PRG Calculator to assess risk. First, the Navy's website suggested the Navy will use the PRG Calculator in the *Five-Year Review*.[3] Second, the Navy's Draft Final Parcel G *Work Plan*, dated November 2, 2018, suggested the Navy will provide documentation for the PRG Calculator as part of the Five-Year Review process.[4] Third, the Navy presented draft conclusions for a draft version of a PRG Calculator assessment at the January 28, 2019, meeting of the Hunters Point Shipyard Citizens Advisory Committee (HPS CAC) Environment & Reuse Subcommittee. EPA supports these prior Navy commitments to issue draft PRG Calculator assessments for regulator and public review, and we recommend you continue to use the PRG Calculator for soils and buildings (commercial scenario).

RESRAD is a tool maintained by the Department of Energy to assess risks to human health from exposure to radiation. RESRAD tools were not developed to be consistent with EPA's risk approach, specifically the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) criteria for risk assessments. We can consider RESRAD after a comprehensive consultation with our headquarters office to ensure consistency with Superfund regulations and guidance. This consultation would also require complex technical evaluations. For example, any tool should be applied in a manner that fully addresses the long-term risks associated with long-lived radionuclides, such as Radium 226 and Thorium 232. The length of this process will depend on the Navy providing its draft RESRAD and draft PRG Calculator assessments, with comprehensive technical inputs and explanations. In addition, use of a different tool would need to be completed in full transparency with the public.

Citation for the quote: "Radiation Risk Assessment at CERCLA Sites," OSWER Directive 9200.4-40, EPA 540-R-012-13, June 2014, Question 34, p. 27.

3 From https://www.bracpmo.navy.mil/brac_bases/california/former_shipyard_hunters_point/timely_topics.html, accessed November 21, 2018: "As part of the 5-year review process, the Navy evaluates past remedial actions to determine if they remain protective. Consistent with regulatory agency and public comments on the July 9 draft 2018 5-Year Review, using current risk assessment procedures and guidance, the Navy evaluated the protectiveness of past remedial action levels and will present Navy draft calculations in the 2018 5-year Review. The next version is expected to be distributed to the public and regulators for further review in November 2018. The referenced EPA comments were accepted by the Navy and the EPA's Preliminary Remediation Goal (PRG) calculator was used to evaluate protectiveness of Navy remedial goals."

4 Appendix A, Responses to Comments Draft Parcel G Removal Site Evaluation Work Plan, p. 5.

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The next stages of testing and, if needed, cleanup work to be performed under the Parcel G *Work Plan* should be informed by the long-term protectiveness evaluation in the *Five-year Review*, which is guided by the most recent science on radiological risk assessment. If the agencies conclude that the current remedial goals are no longer protective of human health and the Navy has already implemented all stages of the Parcel G *Work Plan*, work may need to be performed a second time. Furthermore, the demonstration of long-term protectiveness is an essential component of the Finding of Suitability to Transfer (FOST).

Additionally, if the Navy works to test and clean up current, onsite buildings that will ultimately be demolished for redevelopment, that would be also be a waste of government resources. The rework for the buildings should apply the most realistic re-use scenario; therefore, we recommend EPA and the Navy engage in discussions with the City/County of San Francisco on their residential re-use plans for current onsite buildings. In addition, EPA and the Navy should engage in discussions with the State of California regarding its regulatory framework for approving the transfer of buildings to the City/County for redevelopment or demolition. We, therefore, recommend segregating this buildings issue for further analysis and discussion while testing and, if needed, cleanup of soil proceeds.

If any remedies (e.g., remedial goals, restrictions on future uses) need to change for cleanup to remain protective, the Navy would need to implement a formal post-ROD change process. This process would include an appropriate corresponding level of public involvement. To understand what type of post-ROD change would be required, new reliable data are needed to estimate the extent of the potential change in scope, performance, and cost, consistent with the EPA post-ROD change guidance.[5] Stages I and II above are essential to inform that estimate.

Below are details for EPA's stated path forward to begin field rework at Parcel G. We recommend the Navy move forward in a phased approach to issue five documents to complete the *Five-Year Review* and *Work Plan* in a manner that supports public transparency while efficiently proceeding with field work, step by step. Each document described below can move forward in parallel as essential issues are resolved. For each document, EPA recommends the Navy release the draft version for public comment and prepare a responsiveness summary to comments. EPA will also review all public comments and meet with the Navy to discuss its evaluation of significant comments. EPA has offered to expedite its review of upcoming drafts to further facilitate movement toward field work.

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5 EPA, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, EPA 540-R-98-031, OSWER 9200.1-23P, PB98-963241, July 1999.

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Five-Year Review

The *Five-Year Review* should include a thorough evaluation of long-term protectiveness for the Site. EPA recommends the following steps:

- Continue refining the Navy's draft PRG Calculator assessments for onsite soil (trenches and building sites) and buildings (commercial scenario) and address forthcoming EPA comments on these draft assessments. Develop a technical memorandum to supplement the July 9, 2018, draft *Five-Year Review* to issue this technical memorandum for a regulatory agency and 30-day comment period. This technical memorandum should include explanations of Site-specific inputs (such as legally-enforceable controls on future uses of land and buildings) used in place of default assumptions. Within five days of the comment period closing, please share comments with EPA and begin to develop a responsiveness summary addressing the comments received. Issue the final *Five-Year Review*, after addressing substantive comments received from the public and regulatory agencies about the technical memorandum.
- Work closely with EPA to determine the most appropriate tools (PRG Calculator and/or RESRAD) for the long-term protectiveness evaluation of current, onsite buildings with a possible future mixed-use, including residential (residential scenario). We recommend that the Navy should resume technical discussions with EPA about appropriate site-specific parameters to use in the PRG Calculator assessments. The Navy could pursue the use of RESRAD, after further analysis and consultation with our headquarters office to ensure compliance with Superfund regulations and guidance. The Navy could also conduct a dual analysis.
- Prepare and issue a draft *Five-Year Review Addendum for Buildings (residential scenario)* to evaluate the long-term protectiveness of current remedies and remedial goals in the Records of Decision for the buildings (residential scenario). The Navy should issue a draft *Five-Year Review Addendum* for a 30-day public comment period. This draft should include draft updated PRG Calculator assessments and/or RESRAD assessments, as well as explanations of Site-specific inputs (such as legally-enforceable controls on future uses of land and buildings) used in place of default assumptions. Within five days of the comment period closing, please share comments with EPA and begin to develop a responsiveness summary addressing the comments received.
- Finalize the *Five-Year Review Addendum for Buildings (residential scenario)*, after addressing substantive comments received from the public and regulatory agencies.

Parcel G Work Plan

The *Work Plan* should be informed by the long-term protectiveness evaluation in the *Five-year Review*. EPA recommends the following steps:

- To move ahead with soil reference background testing outside Parcel G, described in Appendix C and other sections of the draft final *Work Plan*, we recommend the following steps:
    - Address the relevant portions of EPA's December 13, 2018, comments on *Work Plan* technical details. Simultaneously, EPA will send additional comments on technical details by April 25, 2019.
    - Issue for regulatory agency review and approval the relevant portions of responses to regulatory agency comments, a responsiveness summary of public comments, and changed pages of relevant portions of the *Work Plan* showing revisions in redline and strikeout.
    - Begin field work outside Parcel G. (At the January 28, 2019, public meeting of the Hunters Point Citizens Advisory Committee, you indicated that you could start field work three weeks after EPA's approval.)
- To move ahead with soil trench and building sites testing inside Parcel G, described in Chapter 3 and other sections of the draft final *Work Plan,* we recommend the following steps:
    - Develop a technical memorandum described above that supplements the *Five-Year Review.*
    - Simultaneously, for the *Work Plan,* address the relevant portions of EPA's December 13, 2018, comments. EPA will send additional comments by April 25. Issue for regulatory agency review and approval the relevant portions of responses to regulatory agency comments, a responsiveness summary of public comments, and change pages with redline and strikeout revisions. Also, make these available to the public.
    - Issue for regulatory agency and public comment the new draft *Radiological Rework Work Plan Addendum* for soil that addresses Stage II, which includes testing soil. Address regulatory agency and public comments, integrate conclusions from the above technical memorandum, and submit the soil portions of the draft final *Work Plan* and *Addendum* for final regulatory agency review and approval. This *Addendum* should be informed by the *Five-Year Review* technical memorandum for PRG Calculator assessments for soil. The Navy should issue a draft *Parcel G Work Plan Addendum* for a 30-day public comment period.
    - Issue the final *Parcel G Work Plan Addendum for Soil*, after addressing substantive comments received from the public and regulatory agencies. EPA would then consider approval of the portions of the Parcel G *Work Plan* that address testing trenches and building sites.

- Field testing can then begin for soil (trenches and building sites).

- Prepare a draft *Parcel G Work Plan Addendum for Buildings* to address the technical details regarding testing and cleanup, if necessary, in buildings. The Navy should issue this draft Addendum for a 30-day public comment period. This Addendum should be informed by the *Five-Year Review Addendum on Buildings* to ensure long-term protectiveness. After comments from regulatory agencies and the public are resolved, EPA would then consider approval of the buildings portion of the Parcel G *Work Plan.*

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