

**NAVY RESPONSES TO AGENCY COMMENTS ON THE
DRAFT FINAL INTERIM-ACTION OPERABLE UNIT III
ALTERNATIVE SELECTION REPORT
NAVAL STATION TREASURE ISLAND
HUNTERS POINT ANNEX
SAN FRANCISCO, CALIFORNIA**

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The following are the Navy's responses to comments by the United States Environmental Protection Agency (EPA), Region IX, Bechtel Environmental, Inc. (Bechtel; reviewer for the United States EPA, Region IX), and the California EPA Department of Toxic Substances Control (DTSC), on the *Draft Final Alternative Selection Report, Interim-Action Operable Unit III, Naval Station Treasure Island, Hunters Point Annex, San Francisco, California*, dated May 12, 1993. Verbal comments from the Regional Water Quality Control Board (RWQCB) were of the same general nature as DTSC comments; written comments were not submitted to the Navy by the RWQCB. The comments are reproduced here exactly as in the original documents. All written agency comments received are addressed below.

I. EPA OFFICE OF REGIONAL COUNSEL COMMENTS AND NAVY RESPONSES

General Comment:

The review of the ARARs analysis contained in this document was complicated by the Navy's definition of a "No Action" ROD. In discussing Interim Action Alternative 1: "No action/institutional action" the Navy explains that this alternative "could include deed restrictions, controls such as limited site access, continued monitoring of the groundwater, and posting of warning signs." (Executive Summary, page vi). As stated in EPA guidance, however, "a remedy including any treatment controls, engineering controls (e.g., containment), or institutional controls would not be considered a 'no action' remedy." EPA, *Guidance on Preparing Superfund Decision Documents*, page 9-2. It is thus unclear if the Navy undertook a review of the No Action alternative.

Response: The Navy's recommendation of the no action/institutional action alternative was not intended as a definition of a ROD. If no action is deemed appropriate for a site, the site is eliminated from the Interim Action ASR process and would be subsequently addressed in the parcel-based RI/FS. The title "no action/institutional action" was used throughout the report to indicate that existing institutional controls would be continued. As stated on page 53, institutional controls already in place would be preserved. Only if the land were transferred before completion of the ROD, would the additional control of a deed restriction need to be implemented. Such transfer is unlikely. The description of the no action/institutional action alternative is consistent with the referenced EPA Guidance, which states "while no action decisions may authorize monitoring...such response decisions should not include any additional measures to eliminate, reduce, or control threats beyond the mitigative measures previously taken."

For all three alternatives we have the following specific comments on the Navy's list of potential ARARs:

Comment 1: Primary MCLs:

It appears that MCLs are a potential ARAR for this OU.

Response: The comment is acknowledged.

Comment 2: Secondary MCLs:

Secondary MCLs (SMCLs) (40 CFR Part 143) are non-enforceable limits designed to establish minimum aesthetic qualities in drinking water. SMCLs and proposed SMCLs may be TBCs for the OU if the selected remedy includes supplying water to a public water supply system.

Response: The comment is acknowledged. SMCLs will be tracked as TBCs if the selected remedy includes supplying water to a public water supply.

Comment 3: MCLGs:

Use of MCLGs as ARARs is usually reserved to instances where application of MCLs will not provide sufficient protection.

Response: The comment is acknowledged. MCLGs will not be used as ARARs unless application of MCLs will not provide sufficient protection.

Comment 4: Proposition 65:

To be an ARAR, the requirements of the state law must be more stringent than federal requirements. However, the regulations implementing Proposition 65 state that "[n]othing in this article shall preclude a person from using evidence, standards, risk assessment methodologies, principles, assumptions or levels not described in this article to establish that level of exposure to a listed chemical poses no significant risk." CCR Title 22, Section 12701(a). I understand that the Navy has performed, or will perform, a risk assessment meeting the requirements of CCR Title 22, Section 12721, and has determined that the standards that will be met in the cleanup pose "no significant risk," as intended by this regulation. The Proposition 65 Title 22 regulations, at Section 12703(b) state:

For chemicals assessed in accordance with this section, the risk level which represents no significant risk shall be one which is calculated to result in one excess case of cancer in an exposed population of 100,000 assuming lifetime exposure at the level in question, except where sound consideration of public health support an alternative level, as for example, where a clean-up and resulting discharge is ordered and supervised by an appropriate governmental agency or court of competent jurisdiction. (emphasis added).

Thus, the statute and implementing regulations recognize that the alternative cleanup levels set by U.S. EPA for a Superfund cleanup are adequate to satisfy the requirements of the Act. Therefore, this law does not impose any more stringent requirement for the remedial action at the OU and is not an ARAR.

Response: The comment is acknowledged; Proposition 65 will be deleted as an ARAR.

Comment 5: Antidegradation policy (Resolution No. 68-16):

This is a potential ARAR.

Response: The comment is acknowledged.

Comment 6: Sources of Drinking Water Policy (Resolution No. 88-63):

I understand that this law is not enforceable and is thus not an ARAR.

Response: The comment is acknowledged; the sources of drinking water policy will be deleted as an ARAR.

Comment 7: EPA Guidelines for Groundwater Classification:

This is a potential TBC.

Response: The comment is acknowledged.

In addition to the above, the following were listed as potential ARARs for at least one of the proposed alternatives:

Alternative I

Comment 1: 40 CFR Section 264.14 (Security at a TSD):

This is a potential ARAR.

Response: The comment is acknowledged.

Comment 2: 40 CFR Part 264 Subpart F (release from a SWMU):

It is unclear what substantive portions of Subpart F will be more stringent than the groundwater monitoring requirements necessary under CERCLA. To the extent such portions of Subpart F are determined, these specific provisions may be an ARAR.

Response: The comment is acknowledged; only portions of 40 CFR 264 Subpart F that are more stringent than the CERCLA groundwater monitoring requirements at this site will be considered as ARARs. 40 CFR 264.119 requires that the notation be recorded on the deed "or on some other instrument which is normally examined during title search."

Comment 3: 40 CFR 264.119 (Post-Closure Notices):

While there is a substantial portion of the RCRA closure requirements which are potential ARARs for this OU, 40 CFR 264.119 does not

appear to be included within this category. Specifically, the Navy sites the requirement to place a deed restriction as relevant and appropriate; this statement neglects the fact that there is no deed for the property at Hunters Point.

Response: The Navy anticipates the preparation of a deed in conjunction with any property transfer; any deed could serve as a vehicle for restrictions, covenants or other similar mechanisms for post-closure controls.

Alternative 2:

Comment 1: 40 CFR 264.601 (Env. Perf. Stds.):

This is a potential ARAR.

Response: The comment is acknowledged.

Comment 2: BAAQMD Rules & Regulations:

A copy of the BAAQMD Rules and Regulations was not provided by the Navy for review as potential ARARs.

Response: The comment is noted. A copy of the Rules and Regulations can be obtained from BAAQMD, 939 Ellis Street, San Francisco, California, 94109.

Comment 3: 23 CCR, Division 3, Chapter 15:

A copy of this state requirement was not provided by the Navy. Review of its potential as an ARAR was not undertaken.

Response: The comment is noted. A copy of this requirement can be obtained from Barclays Law Publishers, 400 Oyster Point Boulevard, Post Office Box 3066, South San Francisco, California, 94080.

Comment 4: 23 CCR, Division 3, Chapter 15, Article 5:

A copy of this state requirement was not provided by the Navy. Review of its potential as an ARAR was not undertaken.

Response: The comment is noted. A copy of this requirement can be obtained from Barclays Law Publishers, 400 Oyster Point Boulevard, Post Office Box 3066, South San Francisco, California, 94080.

Alternative 3:

Comment 1: 40 CFR Part 268 (LDR):

This is a potential ARAR.

Response: The comment is acknowledged.

Finally, the ASR apparently fails to discuss to what extent any of the alternatives would comply with the Navy's list of ARARs; making this ARARs analysis incomplete.

Response: Potential ARARs were presented as they pertained to each of the three alternatives considered. It is the intent of the Navy that the chosen alternative will comply with the substantive requirements of all pertinent ARARs.

II. EPA REGIONAL TOXICOLOGIST COMMENTS AND NAVY RESPONSES

Comment 1: As stated in our previous comments on the ASRs, EPA does not support the use of 10^{-4} excess lifetime cancer risk as a cutoff, but rather we use 10^{-6} as a point of departure and make risk decisions within a range of 10^{-6} to 10^{-4} , based on site specific factors.

Response: The text in the Draft Final OU III ASR has been revised to indicate that the acceptable excess cancer risk range for regulatory purposes is 10^{-4} to 10^{-6} and that EPA and Cal-EPA consider the 10^{-6} excess cancer risk as the point of departure at which risk management decision may be considered at the site, depending upon site-specific conditions. As seen in the attachments of Appendix A of the Draft Final OU III ASR, all numerical health risk results posed by all detected analytes in soil and groundwater, including laboratory contaminants and background metals, are presented. The health-based levels (HBL) for the chemicals based on the carcinogenic effects were derived based on an excess cancer risk of $1E-04$. This is because a cumulative excess cancer risk of $1E-06$, or even $1E-05$, may not be attainable due to background conditions at HPA, as presented by the Navy in the Parcel A meeting with the agencies on June 10, 1993. Also, it does not matter which target excess cancer risk levels were used to derive the HBLs because the total health risks were fully calculated, presented, and discussed in Appendix A of the ASRs.

Comment 2: Also, as stated previously, ground water samples were filtered which is not in accordance with EPA guidance for ground water sampling.

Response: TDS levels at OU III sites are below 10,000 mg/kg, therefore, the groundwater is considered a potential drinking water source and MCLs are used as the health based levels for comparison. Drinking water MCLs are referenced to dissolved metals concentrations, therefore, analyzing groundwater for total metals (unfiltered samples) would yield results which would not be comparable to MCLs. Analytical results for metals from filtered samples would yield results which would be comparable to MCLs.

Although TDS levels are below 10,000 mg/kg, making the groundwater potentially potable, it is important to note that the A-aquifer at OU III sites is entirely manmade. Prior to World War II neither OU III nor the aquifer perhaps existed. As a practical matter, due to the brackish conditions of the groundwater at OU III, regardless of whether other contaminants are present, it is highly unlikely that it will ever be considered potable for residential, commercial, or any other uses.

Comment 3: Nickel and thallium should not have been eliminated as chemicals of concern since their detected values exceeded MCLs.

Response: The Navy was using MCLs effective January 1993 for comparison to groundwater concentrations to evaluate groundwater quality. As requested by EPA, the Navy will use proposed MCLs effective January 1994; they include MCLs for nickel and thallium. A review of the groundwater quality data from wells where nickel and thallium

concentrations exceeded 1993 MCLs was performed. The results of the review indicate that 1994 MCLs for nickel and thallium were only sporadically exceeded at these wells and inconsistently measured in duplicates. Based on the lack of consistency between sampling events and duplicates, no interim action is recommended. Table 22 has been revised to include comments regarding concentrations exceeding 1994 MCLs for nickel and thallium. The revised table is included as Attachment A of this response to comments.

Comment 4: On page 46, exceedances of MCL's are identified as one of the criteria for taking interim action. Levels above MCLs are identified for some constituents in the ASR, but then are ignored for further discussion. The ASR excludes ground water from interim action due to high TDS and lack of imminent threat. Why did the ASR evaluate soil remedies for the site even though no imminent threat is stated to exist, and not do so for ground water as well?

Response: For this ASR, groundwater was eliminated for further consideration prior to evaluating potential remedial alternatives because no current threat to human health existed. The third bullet on page 46 states as one of the criteria for selection of interim action remedial units that "current site conditions may pose an imminent or long-term threat to existing or potential future human receptors." Groundwater was eliminated for further consideration, under current and future site usage scenarios, because it is not expected to come in contact with humans under current or likely future cases. In contrast, surface soil is much more likely to come into contact with humans. Therefore, for soil, unlike groundwater, the remedial alternative selection process was necessary to evaluate three alternatives prior to selection of the most appropriate alternative. At these sites, the "no action" alternative was selected as the preferred interim action alternative. Potential remedial alternatives for soil and groundwater will be further evaluated in parcel-specific RIs.

III. EPA RPM COMMENTS AND NAVY RESPONSES

Comment 1: The Navy needs to be more definitive regarding the thirty-four wells identified within a 2 mile radius of the site, described on page 16. The unknown status and location of most of these wells should be resolved. The locations of the wells known to be in use should be identified. In particular, where is the 1 irrigation well recorded as active? More information will need to be provided to document that the site does not pose a threat to the Albion Mountain Spring well or other nearby wells.

Response: The Navy's initial research into the status of these offsite wells is summarized in Section 3.8 of this ASR. Additional detail was presented in Appendix A of the OU II PHEE report (HLA, 1992k). Additional information on the activity, locations, abandonment, etc., of these wells is not available. If additional information becomes available, it will be incorporated into the parcel RI/FS.

The Albion Mountain Spring Water collection device consists of a horizontal tunnel which collects water discharging from bedrock seeps. The elevation of the tunnel is at or above the elevation of Innes Avenue, which is at an estimated elevation of 30 feet MSL. At OU III, the shallow aquifer is the A-aquifer, not bedrock; water levels in the A-aquifer are less than 5 feet MSL. Thus, there appears to be no potential for cross contamination of the spring from this or any other lowland area of HPA. The issue of possible relationship of groundwater (if any) in the bedrock portions of Parcel A to the spring water company is being addressed separately as part of Parcel A SI activities.

Comment 2: On page 17, the ASR states that the underground storage tanks associated with the fueling station at Building 811 have been removed, but in other places, the ASR states these tanks have been closed in place. Which statement is correct?

Response: The underground storage tanks referred to on page 17 have been closed in place, not removed as stated in the text.

Comment 3: In Section 4.2.2.2 the Navy should have discussed the data quality problems encountered for this OU and any impacts on data quality or quantity for this ASR.

Response: Data validation was performed and is discussed in Appendix D. The data presented in this ASR have been fully qualified and generally meet the criteria set forth in EPA guidance documents for the Contract Laboratory Program (EPA, 1988a, b). Rejected data were not used for evaluation and are not presented in the ASR.

Comment 4: On page 29, the ASR should have discussed a possible source for the metals detected within IR-4. The information on page 19 regarding the scrap materials area is very vague. In general, the ASRs have not put enough effort into correlating contaminants found with past site uses and release mechanisms. The Parcel RI/FSs should do so.

Response: Historical records are incomplete or missing and information on past site activities and potential contaminant sources is limited. For example, the scrap material area at Site IR-4 was described based on a 1984 aerial photograph of HPA. Detailed information cannot be discerned from this photograph; only the area boundary can be seen in the photograph. This area cannot be delineated in earlier photographs and the specific materials stored there cannot be determined. Except as presented in this ASR, no other information concerning past site history at OU III sites is known to exist at this time. If more information is obtained, it will be included in the parcel RI/FS.

Comment 5: On page 34, the ASR states " . . . the final determination of ARARs will be made by EPA as part of the selection of the remedy, and will take into account public comment." To clarify this statement, the final determination of ARARs and selection of the remedy is the responsibility of the Navy as lead agency, not EPA. EPA would either concur with or dispute the Navy's final determination and would have the final say in the event of a dispute.

Response: The comment is noted.

Comment 6: On page 41, the type of worker intended for the commercial/industrial exposure scenario is not identified, e.g., are these construction workers or office workers?

Response: To streamline the ASRs, the type of commercial/industrial workers considered in the ASR reports are office workers. The exposure parameters used are EPA standard default factors for office workers. Construction worker scenarios were not addressed in this ASR, because general HBLs for soil, based on construction worker scenarios, could not be estimated due to the transient nature of construction work and the dependence of HBLs (for example, exposure duration) on areas of contamination.

Comment 7: On page 53, the ASR states that " . . . continued monitoring of the groundwater would be necessary, and deed restrictions would need to be imposed if this land is transferred before completion of the final ROD." Transfer of this property (IR-4 and IR-5) would be unlikely without a Parcel ROD in place, since these are not clean sites. Under CERCLA, it must be demonstrated that all remedial action has been taken prior to a transfer (except in the case of a lease).

Response: The Navy agrees that transfer of this land before completion of the final ROD is unlikely; in the case of a lease, a restriction may need to be imposed. Therefore this possibility was included in the analysis. The Navy acknowledges that, under CERCLA, it must be demonstrated that all remedial actions have been taken prior to a transfer, except in the case of a lease.

Comment 8: On page 53, Section 7.4.1.2 Cost, the ASR discusses Alternative 1 as if this were a final, not interim remedy being considered.

Response: As stated above in Response to EPA General Comment 1, if no action is the preferred alternative, the sites will be eliminated from the Interim Action ASR process and will then be addressed in the parcel-based RI/FS. The costs

associated with the institutional controls discussed are estimated for 5 years as recommended by SACM guidance, and are not presented or intended as final remedy costs.

Comment 9: If the proposal in Alternative 2 to use asphalt batching with offsite beneficial use is to be carried into the Parcel RI/FS's we would like to further discuss this treatment and disposal method with you to determine whether it is an appropriate final remedy for wastes from Hunters Point Annex.

Response: The Navy will discuss the appropriateness of asphalt batching as a final remedy if this alternative is carried into the parcel-based RI/FS.

Comment 10: Page 57 states that implementing Alternative 2 would reduce long-term risks to current and future users of HPA. It appears from the discussion on page 54 of the ASR that this is only true for the residential use scenario. Also, it is difficult to claim that the alternative is expected to meet the final action objectives at the site, since these have not yet been decided upon.

Response: The Navy agrees that asphalt batching would reduce risks for the residential scenario only, since it is likely that it will not apply to the commercial scenario. Based on the assumption that final action objectives will be consistent with current residential scenario remedial goals and objectives, it is expected that final action objectives would be met.

Comment 11: Will the areas covered by pavement that are not targeted for remediation for interim actions on page 57, be targeted for remediation in the Parcel RI/FSs?

Response: As these areas were not determined to warrant interim action, they will be reevaluated for final action in the parcel-based RI/FS which will provide an opportunity to assess whether the areas covered by pavement will be targeted for remediation.

Comment 12: Page 59 states that Interim Action Alternative 2 would increase protection for both residential and commercial scenarios. This alternative only applies to the residential scenario as explained on page 54. To accommodate both residential and commercial scenarios, an alternative that involves other types of solidification and disposal than asphalt batching and reuse, could have been looked at.

Response: The comment is acknowledged. Although an alternative involving other types of solidification and disposal for the commercial scenario could have been included, the most feasible and cost effective method was evaluated under the excavation and disposal option, Alternative 3, where solidification of soil would take place at the Class I disposal facility.

Comment 13: On page 60, the ASR states that "Interim Action Alternative 3 would reduce the mobility of the chemicals by transferring the chemical-bearing soil to a landfill." Disposal without treatment cannot be used to claim reduction in mobility - this claim can only be made when the alternative is a treatment alternative that irreversibly reduces mobility.

Response: The comment is acknowledged; however, as stated on page 58, the chemical-bearing soil determined to be hazardous would be stabilized prior to disposal at a landfill facility. Therefore, the mobility of the hazardous portions of the soil would be reduced through treatment by stabilization prior to disposal.

Comment 14: On page 61, bullet 2, the ASR says that the cost for Interim Action Alternative 2 is for the commercial use scenario; however consistent with the discussion on page 54, it appears this should refer to the residential use scenario instead.

Response: The comment is acknowledged; for Alternative 2, the text should state "residential only."

Comment 15: On page 62, bullet 3, as stated above, disposal without treatment cannot be claimed to reduce mobility.

Response: The comment is acknowledged; please see Response to EPA RPM Comment 13, above.

Comment 16: The ASR states on page 62 that asphalt batching as a recycling technology would comply with the agencies' preference for beneficial reuse of soil. EPA has no stated preference for beneficial reuses of Superfund site soil wastes that I am aware of; do you have a citation for such a preference?

Response: In the Department of Health Services (now DTSC) draft version of *The Use of Recyclable Materials in Asphalt Concrete and Concrete (Use Constituting Disposal)*, the department proposes to adopt regulations which would "both encourage this type of recycling and add conditions to assure that it occurs safely." In addition, by virtue of the fact that soil which is recycled into other products is exempt from certain hazardous waste laws, encouragement appears to be implied.

Comment 17: On page 62, the ASR states that point-source chemicals at OU III sites do not pose an imminent threat to human health. The ASR should have stated here that this is not due to the absence of risks, but rather to the restricted site access and lack of use in its present state.

Response: The comment is acknowledged.

Comment 18: On page 63, the ASR states that ". . . the type and extent of any required final actions are uncertain at this time for several reasons." We agree that this uncertainty exists, but we also agree with the statement made further-on on the page that final actions are likely at these sites due to the levels of contamination and risks present.

Response: The comment is acknowledged.

IV. COMMENTS ON THE NAVY'S RESPONSES TO BECHTEL COMMENTS AND NAVY RESPONSES

Comment 1: The discussion in Sections 2.0 of conditions that must be met before an interim action is recommended should be further clarified. Quantitative (or semi-quantitative) criteria should be provided for the following:

- assessment of chemicals most frequently detected in soil samples, e.g., 10% of surface (0- to 2-foot depth) samples;
- assessment of chemical most consistently detected in groundwater samples from the same wells in different sampling rounds, e.g., 2 samples with detectable concentrations above background out of 3 samples;
- comparison of soil and groundwater metal concentrations to disputed background levels and health based levels, e.g., if the 95% upper confidence limit Cd concentration is a quaternary bay mud sample was less than or equal to the site wide bay mud background concentration, than the bay mud was not considered contaminated;
- assessment of spatial trends in the chemical concentrations in soil and groundwater, e.g., decreasing concentration with increasing distance from a location where a spill may have occurred;
- comparison of soil and groundwater chemical distributions, e.g., areas of high soil concentration are associated with areas of high groundwater concentrations and the relationship between the distributions is consistent with probable soil to groundwater transport mechanisms;
- comparison of groundwater concentrations to MCLs, e.g., concentrations determined in three sampling rounds were averaged and the upper 95% confidence limit concentrations was compared to the corresponding MCL;
- identification of remedial units using risk assessment results, e.g., if surface (0 to 2-foot depth) soil concentrations were less than or equal to health based levels, then the soil represented by that sample was excluded from the remedial unit.

A flow chart should be developed that includes the decision criteria requested above and incorporated into Section 2.0 of the report.

Response: The evaluation process for assessing whether or not an interim action is necessary is presented in this ASR. First, the flow chart presented on Plate II in Appendix I (Navy Responses to Agency Comments) depicts the process of assessing point-source soil contamination at a site. The process for assessing point-source-related occurrences of chemicals in groundwater is discussed in the response to comments No. 3 below.

Second, the evaluation of interim remedial action needs for groundwater and soil is presented as Figures A-6 and A-7, respectively, in Appendix A (Risk Assessment). Together, these two flow charts present the evaluation process for defining remedial units.

Comment 2: To be provided by EPA.

Response: No response necessary.

Comment 3: A similar flow chart should be provided to illustrate identification of point source groundwater contamination.

Response: Assessment of whether groundwater contaminant concentrations represent a point source is described below. If inorganic chemicals above IALs were detected or organic compounds were detected consistently in groundwater samples from a monitoring well, then a potential point source was considered to exist. Detections in two of three monitoring rounds were considered consistent. Thus, any chemical consistently detected in groundwater samples from a well is considered a potential point source. Because of the simplicity of this model, a flow chart was not developed.

Comment 5: The conceptual model presented as Plate I2 is not acceptable. The model should be specific to OU-III (or specific to each IR site included in OU-III) and include a three dimensional pictorial representation of all potentially complete exposure pathways, OU-III contaminant sources, potential contaminant sources under investigation in adjacent areas (e.g., preliminary assessment sites), OU-III exposure points, release mechanisms, transport media, and receptors. The limited nature of the proposed interim remedial action should be contrasted with the conceptual model.

Response: The conceptual model presented in Appendix I (Plate I2) is a generalized model for OU III sites. A three dimensional pictorial representation of complete exposure pathways, contaminant sources, contamination at adjacent sites, exposure points, release mechanisms, transport media, and receptors will be provided in the parcel-specific PHEE following receipt and evaluation of all parcel-specific data.

Comment 7: The Navy's response is not acceptable. A clear discussion including a flow chart illustrating decision points should be developed and included in the report to illustrate how chemicals of concern were identified.

Response: As discussed in Section 2.0 of Appendix A of the Draft Final OU III ASR, chemicals of concern (COC) were selected based on an independent review of environmental analytical data of soil and groundwater samples (from the part of the risk assessors) to identify three-dimensional point-source contamination problems, as well as the relationship between soil and groundwater chemical distributions, and to determine the magnitude and spatial and temporal trends of contaminant releases. Frequency of detection was not used as a criteria to eliminate COCs, as suggested by Bechtel, at greater than 10 percent because there have been instances

where the presence of contaminants represents potentially significant releases but the area has not been adequately sampled. In addition, total risks posed by all detected analytes in soil and groundwater, including laboratory contaminants and background metals were presented in attachments of the Draft Final ASR. As expressed by Bechtel in the comments on the Draft Final OU II ASR, this approach of including in a risk assessment all detected analytes increases the public confidence in and credibility of the risk assessment. The approach of presenting the total site risks, with elevated risks to be evaluated by source (for example, laboratory contamination, background, or site-related), is also preferred by EPA Region IX based on their comments on the Parcel A data presentation.

Comment 14: This and other ASRs should explicitly address community and worker protection during implementation of a remedial action as well as environmental impacts and the time required to achieve the remedial action objectives. The Navy's response is not acceptable.

Response: Community and worker protection during implementation of any interim action will be addressed in the design and specification preparation stage of the removal action process. A Site Health and Safety Plan, Risk Management Plan, and Air Monitoring Plan are standard components during these stages and will address any risk-related concerns involved with any removal action. Impact to the environment will be mitigated during the design phase for discharge of any wastes to the environment; the times required to achieve the remedial action objectives are estimated in Section 7.0.

V. DTSC COMMENTS AND NAVY RESPONSES

Comment: The Department of Toxic Substances Control has reviewed the above report and has the following concerns. Although, the ASRs are considered secondary documents, the Department is forwarding the following comments for your consideration. The Department expects to see the incorporation of these comments in the associated Parcel RI reports.

This report lacks some important components which could affect the outcome. The Ecological investigation, uninvestigated areas, the selection of the lower bound of 10^{-4} cancer risk as a point of departure and considering the unestablished background levels to screen out certain chemicals are the missing driving factors. In addition, the vertical extent of contamination has not been fully investigated. It is thus premature to accept the report as an encompassing and conclusive document. The Department would like to caution the Navy of being too optimistic in considering the IR-4 and IR-5 sites to be clean.

Although, the fragmentary investigations indicate presence of contaminations at both IR-4 and IR-5 sites, no removal actions are recommended. Furthermore the Department does not agree with the use of 1 in 10,000 life-time cancer risk as a point of departure. The Department considers 1 in 1,000,000 life-time cancer risk as a point of departure.

Response: Important aspects of the RI/FS process at HPA which are not included in this ASR, such as, results of ecological investigations, results of investigation in adjacent sites, agreement on risk levels and background levels, and areas where the vertical extent of contamination have not fully been investigated, are either currently under investigation or under discussion. Many of these issues have been identified previously by the Navy and, in fact, provided the motivation for the ASR approach. The Navy acknowledges that this ASR is not an encompassing, pending contracting action, and/or conclusive document and that more information is necessary prior to final evaluation of the fate of OU III sites. As requested, response to the stated DTSC concerns will be incorporated into the parcel RI report.

ATTACHMENT A

**Table 22. Comments on Chemicals Detected in Groundwater Samples from Monitoring Wells
OU III Alternative Selection Report
Hunters Point Annex**

Well	Chemical	IAL (µg/l)	MCL (µg/l)	Maximum Concentration (µg/l)	Comments
IR-4 Metals					
IR04MW36A	Arsenic	11	50 (F&S)	169	High concentrations except on 6/92 with a concentration of 4.6 µg/l Sample # = 9225X630, collected on 6/17/92 Possibly switched (misabeled in the field) with IR04MW31A samples (See IR04MW31A below)
IR04MW31A	Arsenic	11	50 (F&S)	208	Only in 6/92 round, other rounds either ND or below MCL and IAL Sample # = 9225X629, collected on 6/17/92 Possibly switched (misabeled in the field) with IR04MW36A samples (See IR04MW36A above)
IR04MW35A	Nickel	126	100 (F)	147	Only detected above MCL in 1990 and 1991 sampling rounds Concentrations of 11.5 and 46 µg/l in 2/92 and 6/92 rounds, respectively
IR04MW36A	Thallium	ND(15)	2 (F)	19.3	ND in duplicate sample ND in all other sampling rounds
IR04MW38A	Thallium	ND(15)	2 (F)	2.1	ND in duplicate sample ND in all other sampling rounds
IR04MW40A	Lead	ND(12)	15 (F)	15.4	Only in 2/92 round ND in all other rounds
	Cadmium	9.3	5 (F)	13	Only in 11/91 and ND in duplicate ND in all other rounds
	Nickel	126	100 (F)	302	Only above MCL in 1991 sampling round Below MCL in all other rounds
Organics					
IR04MW13A	1,1-DCE	NA	6 (S)	38	Detected in all rounds
	1,1-DCA	NA	5 (S)	55	Detected in all rounds
	1,2-DCE	NA	6 (S)	10	Detected in all rounds
	TCE	NA	5 (F & S)	23	All samples except one duplicate (6/92) qualified ND because of field blank contamination
	PCE	NA	5 (F & S)	52	Detected in all rounds
IR-4 Organics continued					
	1,1,2,2-TCA	NA	1 (S)	2	Trace (2) in one duplicate 6/92
	1,1,1-TCA	NA	200 (F & S)	159	Detected in all rounds

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Well	Chemical	IAL (µg/l)	MCL (µg/l)	Maximum Concentration (µg/l)	Comments
	Bis-(2-ethylhexyl)phthalate	NA	4 (S)	7	Found in several samples from the 6/92 sampling round
IR04MW35A	PCE	NA	5 (S)	5.43	11/91 at ND(5), 2/92 at 5.43, 6/92 at 2 A/I
	Bis-(2-ethylhexyl)phthalate	NA	4 (S)	70	Found in several samples from other wells in 6/92, common laboratory contaminant
IR04MW37A	TCE	NA	5 (S)	7.87	11/91 = 5, 2/92 = 7.87/7.55, 6/92 = ND(5)/ND(4) U2, found in field blank
	Bis-(2-ethylhexyl)phthalate	NA	4 (S)	5	Found in several samples from other wells in 6/92, common laboratory contaminant
IR04MW39A	TCE	NA	5 (S)	10.3	11/91 at 9, 2/92 at 10.3, 6/92 at ND(10) U2, found in field blank
IR-5					
Metals					
IR05MW73A	Selenium	27.7	15 (S)	27.7	12/90 only, ND in all other rounds
IR05MW76A	Selenium	27.7	15 (S)	25.8	12/90 only, ND in all other rounds
IR05MW77A	Lead	ND(12)	15 (F)	31.4	6/92 only, ND in all other rounds
IR05MW85A	Arsenic	11	50 (F&S)	148	Detected in all rounds
	Mercury	ND(0.8)	2 (F&S)	11	Detected in all rounds
Organics					
IR05MW76A	1,2-DCE	NA	6 (S)	10	6/92 only, ND in all other rounds
IR05MW85A	1,2-DCE	NA	6 (S)	7	Detected in all rounds
	SOCS	NA	NA	NA	Detected in all rounds
	TPH-extractable & TPH-purgeable	NA	NA	NA	6/92, not analyzed for in 7/92

Notes: All concentrations expressed as micrograms per liter (µg/l)

IAL = Interim ambient level

MCL = Maximum contaminant level

F&S = Federal and state MCLs

NA = Not applicable

ND = Not detected at or above the concentration in parenthesis

Qualifiers for analytical results explained in Appendix D.