



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



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

DEC 02 2016

Captain Richard D. Hayes
Regional Engineer
Navy Region Hawaii
850 Ticonderoga Street, Suite 110
Pearl Harbor, Hawaii 96860-5101

Re: Conditional Approval of Red Hill AOC SOW Deliverable under Sections 6 & 7 – Work Plan/ Scope of Work, Investigation and Remediation of Releases and Groundwater Protection and Evaluation, Red Hill Bulk Fuel Storage Facility, November 5, 2016 Revision 01

Dear Captain Hayes:

The U.S. Environmental Protection Agency ("EPA") and Hawaii Department of Health ("DOH"), collectively the "Regulatory Agencies", have reviewed the revised *Work Plan/ Scope of Work, Investigation and Remediation of Releases and Groundwater Protection and Evaluation, Red Hill Bulk Fuel Storage Facility* ("revised Section 6&7 SOW") submitted by the U.S. Navy ("Navy") and Defense Logistics Agency ("DLA") on November 5, 2016. The Regulatory Agencies are conditionally approving the Section 6&7 SOW, pursuant to AOC Sections 7(b)(b).

Although the revised SOW, for the most part, addresses the Regulatory Agencies' primary comments, the revised SOW contains several minor errors and omissions. Furthermore, the SOW also includes sections which imply final decisions had been made by the Navy when the new structure of the SOW requires decisions to be made collaboratively with the Regulatory Agencies and external Subject Matter Experts (SMEs).

Therefore, the Regulatory Agencies require that the Navy and DLA submit a revised Section 6&7 SOW addressing the comments listed in the enclosure to this letter as a condition of approval. The Regulatory Agencies request that this revised SOW incorporating the corrections necessary to clearly memorialize the plan for the work be submitted within 30 days of this letter. Notwithstanding the need to make these corrections, the Section 6&7 SOW is approved for the purpose of beginning the work and initiating the 24-month schedule for the Navy's and DLA's subsequent deliverables as described in the Red Hill AOC SOW.

The November 5, 2016 Section 6&7 SOW revision has been restructured to incorporate collaborative and iterative processes to accomplish the AOC SOW section 6&7 tasks, which addresses Comment #1 in our September 15, 2016 disapproval letter. This revised Section 6&7 SOW includes the development and submittal of derivative deliverables, multiple check in points with the Regulatory Agencies, external SMEs, and acknowledgement that information presented in the revised Section 6&7 SOW is preliminary and subject to change based on new information. The revised Section 6&7 SOW also provides flow and Gantt charts that lay out the sequence and schedule for accomplishing the work required by Sections 6&7 of the Red Hill Administrative Order on Consent Statement of Work (AOC SOW), as well as showing how the work relates to other tasks required by the AOC SOW. Collectively, these revisions to the SOW address the 11 main comments we included in our September 15, 2016 letter.

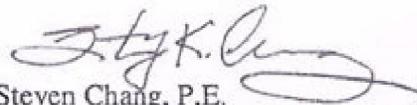
Much of the detailed comments we provided in the enclosure to our September 15, 2016 letter, as well as comments provided by the Honolulu Board of Water Supply in their June 3, 2016 letter (attached to our September 15, 2016 letter) remain outstanding and will still need to be addressed in the appropriate deliverable as the Navy completes the tasks described in the revised Section 6&7 SOW.

We are available to discuss our comments in more detail. Please contact us with any questions. Bob Pallarino can be reached at (415) 947-4128 or at pallarino.bob@epa.gov and Steven Chang can be reached at (808) 586-4226 or at steven.chang@doh.hawaii.gov.

Sincerely,



Bob Pallarino
EPA Red Hill Project Coordinator



Steven Chang, P.E.
DOH Red Hill Project Coordinator

Enclosure

cc: Mr. Aaron Poentis, NAVFAC
Mr. John Montgomery, U.S. Navy

**Enclosure 1 – Corrections Required in November 5, 2016 Sections 6 & 7 –
Work Plan/ Scope of Work**

Comment 1

Section 2.1, Problem Definition, Page 2 of 58

Lines 30-31

Revise problem definition #2 to read “A better understanding of the subsurface is necessary to reduce uncertainty related to the nature and extent of contamination at Red Hill as well as the fate, transport and transformation of fuel released at the facility and its potential to threaten drinking water quality.”

Comment 2

Section 2.4 Procedural Approach, Page 8 of 58

Lines 22- 24

Table 1 does not include the information on discussion meetings with Regulatory Agencies and SMEs. The sentence “As noted in the Table, all derivative deliverables will include at least one discussion meeting with the AOC Parties prior to initial submittal, and at least one discussion meeting with AOC Parties and SMEs after Regulatory Agency review of the initial submittal.” should be removed.

Comment 3

Section 2.7 Developing the Design for Obtaining Data, Page 13 of 58

Lines 25 – 30

This section seems to establish a sampling frequency and schedule for the monitoring well network, stating that one wet-season and one dry-season groundwater monitoring event will be conducted to establish baseline water levels and contaminant concentrations. Following this initial round of sampling the monitoring network will collect samples on a quarterly basis.

Even though line 23 indicates that this schedule will be applied “at a minimum”, this section needs to be revised to indicate that the actual sampling frequency will be addressed as part of the derivative deliverable Sampling and Analysis Plan. This is an example of the SOW indicating that a final decision had been made by the Navy without first providing an opportunity for input from the Regulatory Agencies and SMEs.

Comment 4

Section 3.2.1 Task Description (Task 2 Investigate NAPL), Page 18 of 58

Lines 6 - 9

This section should make it clear that additional input on methods for investigating NAPL will be obtained as part of the CSM (Conceptual Site Model) Development and Update Plan. As

currently written, the section states that the Navy's determined that only one method, an electrical resistivity survey, holds any potential for locating NAPL in the vadose zone. Other stakeholders, such as the University of Hawaii, have indicated that there may be additional geophysical methods for investigating NAPL.

Comment 5

Section 2.3, page 6, Line 41; Section 2.4, page 8, Table 1; and Section 3.4.1, page 22, Lines 12-18

The Regulatory Agencies question the utility of installing replacement wells for existing wells OWDFMW01 and RHMW01. In keeping with the new structure of the SOW, the Navy should simply state that they believe there are issues with the screen location in these wells and that the Monitoring Well Installation Work Plan Addendum derivative deliverable will propose the installation of replacement wells. The Navy will seek input from the Regulatory Agencies and other stakeholders before proceeding with the installation.

Comment 6

Section 3.4.1 Task Description, Table 9, Page 24 of 58

Lines 12 -13

Footnote f to Table 9 states that Groundwater chemistry parameters will be collected only for one round of groundwater sampling. Determining the total number of groundwater chemistry parameter sampling events should be included as part of the Sampling and Analysis Plan deliverable and the actual number of sampling events be open to discussion by the Parties to the AOC and appropriate SMEs.

Comment 7

Page 24 of 58, Lines 14 – 20 and Page 25 of 58, Line 2

The Regulatory Agencies have comments on the Navy's proposed approach to conducting topographic and gyroscopic surveys. This section should include a clear statement that the survey information presented in this document is draft and that the final procedures to be used will be included in the Sampling and Analysis Plan as indicated in Table 7. The Regulatory Agencies and external stakeholders will provide input and comments on the Navy's survey plans at that time.

Comment 8

Figure 4, Schedule for Sections 6&7 AOC and Derivative Deliverables

All process steps for deliverables should include an opportunity for Subject Matter Expert review and comment. Some of the deliverables include this step, others do not. It appears to be an oversight but needs to be corrected in the final version of the revised Section 6&7 SOW.