

## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843  
www.boardofwatersupply.com



December 5, 2016

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Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.  
Deputy Manager and Chief Engineer *EWK*

Mr. Bob Pallarino  
EPA Red Hill Project Coordinator  
Region IX  
75 Hawthorne Street  
San Francisco, California 94105

and

Mr. Steven Chang, P.E.  
DOH Red Hill Project Coordinator  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

Dear Messrs. Pallarino and Chang:

Subject: United States Environmental Protection Agency (EPA) and Hawaii Department of Health (DOH) Conference Call with the Board of Water Supply (BWS) to Discuss Various Work Sections of the Red Hill Bulk Fuel Facility Administrative Order on Consent (AOC)

Thank you for inviting BWS to participate in a conference call with EPA and DOH on November 22, 2016 to discuss various work sections of the Red Hill Fuel Facility AOC. The purpose of the call was for the regulatory agencies to “check-in” with BWS on the following topics.

1. Section 3
2. Section 6/7
3. Split samples
4. Water level measurements
5. Regular calls
6. Decision meeting on TIRM (Tank Inspection, Repair and Maintenance)
7. Section 8 next steps

Messrs. Pallarino and Chang  
December 5, 2016  
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Enclosed for your review are the minutes of the call that you agreed for us to take. Please send us any changes by December 16, 2016. If we do not receive comments by that date, we will understand you have no objections to the contents. From there we will post the minutes on the BWS website. Thank you for the opportunity to participate in the AOC process. If you have any questions, please feel free to call me at (808) 748-5061.

Very truly yours,



ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

Enclosure

cc: Steve Linder (w/ enclosure)  
United States Environmental Protection Agency  
Region IX  
75 Hawthorne Street  
San Francisco, California 94105

Red Hill AOC – “Check in” conference call with EPA  
Meeting Notes  
Nov. 22, 2016.  
Call started at 10:30 AM Hawaii time

Present

BWS Team

1. Ernie Lau (BWS)
2. Erwin Kawata (BWS)
3. John Sigda (INTERA)
4. Bill Linderfelt (INTERA)
5. Larry Eiselstein (Exponent)
6. Meredith Sellers (Exponent)

DOH

1. Roxanne Kwan
2. Steve Chang
3. Thu Perry

EPA

1. Steve Linder
2. Bob Pallarino
3. Tom Huetteman

Meeting Agenda/ Purpose: Discuss the following

- Section 3
- Section 6/7
- Split samples
- Water level measurements
- Regular calls
- Decision meeting on TIRM
- Section 8 next steps

Linder: EPA does not intend to respond to BWS comment letters in written format but instead use phone calls – stated EPA doesn't have the resources to adequately review, or respond to, BWS comments

Pallarino: Purpose of today's call is to have SMEs give Navy feedback

Lau: BWS wants to have a written memorial of the phone call

Linder: Issue on BWS letters is that there is a large volume of info but EPA is using their time to get Navy moving in the right direction rather than respond to BWS comments.

Lau: It would be helpful if EPA would identify the specific comments in BWS letters that they wish to discuss prior to each conference call.

Kawata: We know we are sending a lot of comments and letters but not hearing back from EPA or DOH. Are you finding our comments useful?

Linder: We use many of the BWS comments in EPA directions to Navy

Eiselstein: Are the BWS letters forwarded by EPA to Navy?

Linder: They are cc'ed to Navy coordinator. We haven't seen any written plans back from Navy.

Pallarino: Don't want the Navy work plans to tell us how many coupons they want to cut - we want the work plan to tell us the process of figuring out how many coupons will be cut

For example, on TUA revised doc provided by Navy to EPA, EPA wants to give a conditional approval to WP to move actions forward. What are the conditions? Need to work out how to process all the information from Enterprise Engineering.

So any thoughts? Want to balance getting plans good enough with moving forward. Better to give them conditional approval while holding out on portions considered deficient.

Lau: 3 things to be clear - 1) We are not co-regulators but SMES; 2) request formal agenda provided beforehand; and 3) minutes are to be kept and circulated for review. This first call's minutes will be provided by BWS.

Linder: Generally we are in agreement that notes are ok but no decision making. Purpose is to receive clarification

Kawata: Minutes will keep us on the straight and narrow going forward

Lau: We have never seen any minutes from previous meetings with EPA.

Linder: Draft notes from previous meetings are in process. We are looking for more resources to get notes produced. The DOH is responsible for compiling the notes from previous meetings.

Lau: Asked that everyone on the call be identified (see list on first page)

Linder: We want to open up lines of communication but our priority is to get instructions to Navy. We want to avoid getting massive documents that contain everything from the Navy but instead have documents that tell us how they will develop the work.

Huetteman: There is some question about how our input is being used. Many of the BWS comments we are aligned with EPA thoughts, but others EPA doesn't agree with.

Lau: We may wish to continue writing letters

Huetteman: Let's augment record with these discussions

### **AOC Section 3 – Tank Upgrade Alternatives**

EPA preparing letter to give Navy conditional approval subject to having a process on decision criteria. EPA wants SME to comment on planning process

Check in on development of TUA plan. EPA wants to ensure their expectations being met by Navy. EPA plans to meet with Navy then have follow up with SMEs by conference call or face-to-face meeting subject to dates and feasibility. EPA willing to share its final TUA approval letter with SMEs.

Linder: Conditional approval to create a parallel process on working out decision criteria. Will also call for check-ins by web or conference to see that we will get from navy consultant what we expect to get and then have a follow up meeting with SMEs.

Lau: We will need face to face meetings?

Linder: That depends. Also planning to involve SMEs in that planning process.

Lau: Are you willing to share a draft of your conditional approval letter?

Linder (or other EPA participant?): No because it will be public record.

### **AOC Section 6 & 7 Investigation and Remediation of Releases/Groundwater Protection and Evaluation Work Plan**

Linder: Right now, EPA interested in process versus technical detail. EPA generally accepts Navy's revised 6 & 7 work plan and approval of process.

COC list approved at end of scoping. Navy can present information about COPCs to be analyzed but EPA does not want it characterized as final.

EPA want revisions to Gantt chart and typos. Navy intends to have SMEs involvement in each deliverable.

BWS stated process of involving SMEs is not specified clearly.

Lau: EPA rejection letter (of initial sec 6 & 7 work plan) states to address SME concerns but the Navy have yet to contact BWS.

Linder: Navy process must be more collaborative

Pallarino: EPA told Navy that must engage with other SMEs.

Process to develop the technical information and findings. BWS comments will be evaluated later on in the process (during review of derivative deliverables). EPA wants to get the process identified and approved now.

Sigda: Process in revised sec 6 & 7 work plan still does not include how uncertainties in important elements, like valley fill and the regional groundwater flow field, will be addressed in all the derivative deliverables. Navy's plan should state that uncertainties will be first addressed using conservative assumptions and these conservative assumptions will be relaxed if and only if there are defensible data from characterization that unambiguously reduce the uncertainties.

Linder: EPA not reluctant to requiring Navy to respond to BWS comments. But EPA wants to get the Navy started on Sec 6 & 7 using a process that approves the current submittal.

Sigda: If EPA can get the Navy to embrace a conservative approach, it will benefit the outcome. For example, the Navy is clearly not going to drill wells to determine the geometry and properties of the Halawa valley fill. Without such defensible data, then the Navy shouldn't assume the valley fill acts as a barrier because there is no information to prove it is.

The Sections 6&7 work plan lays the foundation for the derivative deliverables and so must describe how uncertainty in important elements will be addressed. The current revision does not even mention how uncertainty will be addressed especially regarding important elements like valley fill and regional groundwater flow. The current revision uses the word "conservative" in regard to attenuation rates for the flow and transport model and lab analyses. It needs to be revised to state conservative assumptions about all important elements will be used at first until the data are available to reduce the uncertainty.

Linder: EPA looks at uncertainty differently than the BWS. EPA knows the degree of uncertainty and providing the Navy comments to reduce the uncertainty in facility operations that is protective of groundwater. EPA working on an approval letter. BWS willing to provide uncertainty language – EPA does not guarantee it will be used.

### **Split sampling:**

Navy to collect 2 sets of samples. DOH (geologist from SDWB and Randy Chu) observe the sample collection. One set of bottles to Navy and one set to EPA. The samples will be analyzed for the full suite of contaminants of the analytical method. Not analyzing the fuel

additives list provided by BWS because EPA is not certain that those additives were actually present in the fuels stored at Red Hill. EPA and Navy will analyze phenol.

Lau: So, the Chain of Custody (COC) starts with DOH choosing one cooler?

Pallarino: We are breaking the split sampling up into 2 parts: lab analyses and sampling method. We will be observing the sampling method later.

EPA will look at all analytes in EPA methods won't look at additives now other than phenol - 60 to 70 chemicals

Kawata: The EPA's split sampling won't be true split sampling.

Pallarino: Lab analyses will have a 30-day turnaround time

Kawata: Who is doing the lab work? Can we take a sample?

Pallarino: Not sure. Would have to ask Navy.

Kawata: Aaron Puentis mentioned BWS could participate split sampling to Ernie Lau.

### **Water level measurement conducted on Friday, 11/18/16:**

Waiting for USGS to compile and distribute the results. BWS submitted its measurements to USGS.

### **TIRM decision meeting**

EPA discussed with the Navy. Looking at multiple days.

- Week of Dec 5 (phone call between EPA and Navy) to discuss approach and how process to be structured.
- Meetings continue in early Jan. 2017. Then involve SMEs.
- Revisit TIRM decision after leak detection report results known.
- Look at interdependencies with other section of AOC.

### **Sec 8 RVA (Risk/ Vulnerability Analysis)**

- EPA had call with Navy for an update.
- Navy having ABS do the work.
- EPA recommended QRVA work have decision points on data inputs for the model.
- Understand input parameters separate from other parts – want to get sec 8 moving.

Eiselstein: TUA should include relocation of tanks as an alternative. TUA should describe how QRVA interacts with other section of the AOC.

Linder: EPA agrees. Navy looking for discrete data on the 6 alternatives.

Eiselstein: Wants recognition of other alternatives.

Lau: Navy did say they were requested by the Armed Services Committee to do a relocation study. The study results should be included in the RVA.

Linder: Relocation will be included in the decision process.

Sigda: How does EPA ensure all data on relocation is available and included in the decision process?

Linder: Use best information available when the decision point is reached approx. 15 months from time of approval.

BWS (Lau?): We want Red Hill to be operated in a way that is protective of groundwater and if it is too expensive then the Navy will have to reconsider continued operation.

Linder: So are regular conference calls a good idea?

Lau: We need to know ahead of time.

Call ended at 12:00 PM Hawaii time.

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December 27, 2016

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EPA Red Hill Project Coordinator  
United States Environmental Protection Agency  
Region IX  
75 Hawthorne Street  
San Francisco, California 94105

and

Mr. Steven Chang, P.E.  
DOH Red Hill Project Coordinator  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

Dear Messrs. Pallarino and Chang:

Subject: Your Letter Dated December 14, 2016 Regarding a Conference Call  
Between the United States Environmental Protection Agency (EPA),  
Hawaii Department of Health (DOH) and the Board of Water Supply (BWS) to  
Discuss Various Work Sections of the Red Hill Bulk Fuel Facility Administrative  
Order on Consent (AOC)

Thank you for the subject letter (copy enclosed for reference) forwarding your comments to our minutes of a November 22, 2016 conference call between EPA, DOH, and the BWS to discuss various work sections of the Red Hill AOC. We will attach your letter to our minutes and post both documents on the BWS website. As discussed, BWS is posting the minutes in an effort to maintain transparency with our customers regarding our participation with the Parties in the implementation of the Red Hill AOC.

Thank you again for the opportunity to participate in the AOC process. If you have any questions, please feel free to call me at (808) 748-5061.

Very truly yours,

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

Messrs. Pallarino and Chang  
December 27, 2016  
Page 2

Enclosure

cc: Steve Linder (w/ enclosure)  
United States Environmental Protection Agency  
Region 9  
75 Hawthorne Street  
San Francisco, California 94105



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

December 14, 2016

Ernest Lau, P.E.  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, HI 96843

**Subject: Response to BWS Minutes from November 22, 2016 Red Hill Call dated December 5, 2016**

Dear Mr. Lau:

The Regulatory Agencies wish to thank the Board of Water Supply (BWS) for taking the time to participate in a conference call with us on November 22, 2016. The purpose of the call was for the Regulatory Agencies to check-in with the BWS and discuss the status of the various AOC tasks.

We also appreciate the BWS's effort to memorialize the discussion by preparing meeting notes. While these notes capture a good portion of the discussion, we do not consider these notes a complete and accurate summary of the discussion.

For example, your notes indicate Mr. Linder stated that EPA does not have the resources to adequately review and respond to BWS comments. Mr. Linder indicated that our resource limitations prevent us from responding directly to BWS on all of the extensive comments you have provided but he did not say that we are unable to adequately review your comments. The BWS can be assured that the Regulatory Agencies are thoroughly reviewing all BWS comments and utilizing much of this information as we prepare responses to Navy / DLA AOC deliverables.

Another example is on Page 4. Although some of the paragraphs are attributed to individuals, others are not. Additionally, the text of the notes omits portions of the conversation.

Given that the Regulatory Agencies did not take our own detailed notes during this discussion, we are unable to provide a complete list of corrections in order for - BWS to obtain our concurrence. Therefore, we suggest that -BWS utilize these notes for their internal purposes only. In the future, we suggest that any shared notes develop be focused primarily on action items with perhaps a short summary of the topics discussed.

Thank you again for your interest in our regulation of the Red Hill Facility. We look forward to continuing to work with you as an important stakeholder in our efforts to ensure that the Facility is operated in an environmentally protective manner that safeguards Honolulu's vital drinking water resources. Should you have any questions, feel free to contact Bob Pallarino of US EPA at 415-947-4128 or Steven Chang of HDOH at 808-586-4226.

Sincerely,



Bob Pallarino, Red Hill Project Coordinator  
Underground Storage Tank Program  
U.S. EPA, Region 9



Steven Chang, Chief  
Solid and Hazardous Waste Branch  
Hawaii Department of Health