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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: Conference Call with the United States Environmental Protection Agency (EPA) and Department of Health (DOH) held on November 22, 2016

Thank you for inviting the Board of Water Supply (BWS) to speak with you on November 22, 2016. As discussed, enclosed are follow-up items to several points discussed in our conversation.

First and foremost, we appreciate the EPA's reluctance to further delay the work activities required under the Administrative Order on Consent (AOC) and Statement of Work (SOW). However, we would like to also point out that many of our concerns have been mentioned previously to the EPA, DOH, and Navy/Defense Logistics Agency (DLA) and have yet to be addressed to our satisfaction. For instance, we emphasized the importance to include tank relocation in the SOW Section 3 Tank Upgrade Alternatives (TUA) work plan as early as May 27, 2016 (Lau 2016a). We reiterated this comment in our letter dated September 30, 2016 (Lau 2016b) when we noted that the SOW Section 3 outline had only been minimally altered between January and September of 2016. While we understand that all our recommendations may not be agreed to by all parties, the absence of our recommendations being incorporated into draft work plans reviewed to date, or at least being mentioned, discussed, and rejected

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for cause on some basis, appears to BWS as a reflection of the Parties' intent to ignore our input. We understand concerns about delays and the "need to move forward" as stated by the EPA several times during the call. However, "moving forward" without first establishing a scientifically defensible basis for doing so that addresses comments and concerns from the BWS is not acceptable, especially when the BWS has always provided suggestions and recommendations in a timely matter throughout the AOC process.

During the call, EPA stated the regulatory agencies do not have sufficient resources to evaluate technical contributions from the BWS. In effect, the regulatory agencies are making decisions that ignore valuable technical contributions from the BWS and other stakeholders and Subject Matter Experts (SMEs), thereby risking that the subsequent decisions will not be scientifically and technically sound and ensuring that they do not incorporate BWS concerns. The regulatory agencies should act to remedy their lack of technical resources immediately.

As we stated during the conference call, the BWS believes the revised work plan for SOW Sections 6 and 7 does not state how uncertainties in important elements of the hydrogeologic system will be addressed. The regulatory agencies should direct the Navy to state that the technical approach for all sub-tasks and deliverables will employ the precautionary principle in dealing with uncertainties about important hydrogeologic elements. The work plan text should state that the work conducted under Sections 6 and 7 should "take appropriate account of societal aversion to risks of large harm and the value of obtaining additional information before allowing environmentally risky activities to proceed" (Stewart, 2002) or similar wording. The goal is for all work to consistently adopt conservative assumptions and approaches when the available data for important elements are not adequate to significantly reduce the uncertainty about important elements of the hydrogeologic system or the contaminant source.

Regarding our discussion of tank relocation, the BWS reiterate our concern that none of the SOW work plans and reports currently mentions tank relocation as an option. We believe that the natural location for such a discussion would be in the background section of SOW Section 3. Absent tank relocation being explicitly mentioned in the SOW, we are concerned that the option will not be appropriately considered later in the decision-making process. Even if, as the EPA and DOH describes, tank relocation is to be considered later in the AOC process, we believe that intention should be clearly stated in SOW Section 3.

The conversation also brought to our attention that the goals of each SOW Section are not always clearly defined. For instance, it was our understanding that SOW Section 3 would include decision-making as well as alternative siting of tanks as an option. As the

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EPA has informed us, these topics are going to be considered elsewhere, we believe it would be prudent for the EPA to require each SOW Section to list the scope and limitations and redirect the reader to other interrelated content. For instance, the background section of SOW Section 3 should indicate (1) how TUA outputs will interact with other SOW Sections such as Sections 4 and 8; (2) that tank relocation is to be considered but not within Section 3; and (3) that the process by which a TUA (to include re-siting) is to be selected will be described elsewhere in the SOW.

If you have any questions, please feel free to contact me at 808-748-5061.

Very truly yours,

ERNEST Y.W. LAU, P.E.

Manager and Chief Engineer

cc: Mr. Steve Linder
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