

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD
TANK WASTE COMMITTEE
May 8, 2013

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This is only a summary of issues and actions in this meeting. It may not fully represent the ideas discussed or opinions given. Examination of this document cannot equal or replace attendance and public participation.

Opening

Dirk Dunning, Tank Waste Committee (TWC) chair, welcomed the committee and introductions were made. He noted that holding a meeting via phone and GoToMeeting may be challenging but was a good option for this short and focused committee meeting.

Hillary Johnson, EnviroIsuses, said the draft April TWC meeting summary will be distributed to the committee today for review. Summaries have been undergoing an additional step in the review process where agencies conducted an initial review to check for technical accuracy before summaries were sent to the entire committee. This process should be faster in the future as summaries will no longer be going through this initial review.

Advice Development Regarding Double-Shell Tank AY-102 (Joint with PIC)

Introduction

Dirk introduced the double-shell tank (DST) AY-102 draft advice. This advice had been developed and edited within the issue manager group, as directed by the committee at the April TWC meeting. It had been distributed to the committee prior to today’s meeting. He proposed discussing the draft advice from beginning to end, starting with the background section and then going through each proposed advice point.

Committee discussion

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments. Questions, comments, and responses were provided by HAB members unless noted otherwise.

The committee reviewed the draft advice and made a number of changes to clarify wording and remove unnecessary language or points of disagreement. Edits were also made to ensure technical accuracy in the advice and to reference source documents.

Q. Is the statement that the liner only has a design service life of seven days accurate? This seems like a very short time period.

R. There is a distinction between the length of time an object is designed to last and how long that object can actually remain functional. The liner's design life is seven days since the intention was for any leak into the liner to be removed immediately. The language in the draft advice can be clarified. The width of the liner varies so the problem is not linear. The concern is largely about being able to control the chemistry of the tanks. It is likely that the material that leaked and caused a failure in the primary tank will attack the secondary tank more aggressively than the primary.

C. A sentence should be added to reflect concerns about design service life and the limited nature of the secondary liner as well as the fact that there is an inability to monitor conditions of any waste underneath the tanks.

C. The Hanford Advisory Board (Board or HAB) would like to advise the U.S. Department of Energy (DOE) to have a more aggressive monitoring program beyond sampling every eight years. Monitoring should include an examination of aggressive chemistry and corrosion.

Q. DOE has stated that they would not be able to pump the tanks until 2021. Is that part of the official timeline? The Board should include a statement in the advice about wanting material pumped from the tanks within a certain timeframe.

R. That is not an official number; DOE mentioned pumping would not likely begin until 2022 or 2023 during a previous TWC meeting. The Board may be able to obliquely reference this conversation in the advice but it is not an official proposal at this point. The Board should be cautious about including conversations from committee meetings; in this instance DOE shared something they have only been discussing internally and have not officially proposed.

C. There are other tanks at the Hanford Site that are far more concerning than tank AY-102. Not all Board members agree this tank should be pumped first and there is some disagreement on where it should fall on the priorities list. The Board can make a statement that DOE should not wait until after 2020 to pump the tank.

C. The Board should be very clear that six years is too long to wait before dealing with the leak in AY-102. One of the sentences in the advice seems to imply that the Board would agree to a six year delay in addressing the leak.

C. The Washington State Department of Ecology (Ecology) has told DOE they believe DOE should pump the tanks as soon as possible. The Board should make a statement in agreement with Ecology. Ecology will email Hillary the letter stating their recommendations for distribution to the Board.

C. Tank AY-102 should be taken in context with what is known about the other tanks. It is reasonable for the Board to say that pumping should not be delayed but the Board is not necessarily in agreement that AY-102 should be pumped immediately or that it should be pumped before other tanks (e.g. leaking single-shell tanks).

C. The annulus space in the tanks does not exceed an inch in depth and waste retrieval from the single-shell tanks (SSTs) will remove waste to within an inch of the floor. Theoretically, the costs of impacts from accumulated sludge will be much more significant than leaving waste in SSTs. Leaving annulus space filled with sludge is a major concern because that sludge will be very costly and difficult to retrieve in the future. DOE will likely need to remove the inner liner in order to reach all the waste, which is not something that has been fully evaluated.

C. The Board has also recently learned that there are hundreds of gallons of waste leaking from T Farm tanks right now. These tanks should be prioritized. The advice could include a statement about timing actions to coincide with the risks involved. The Board should not make any directive statements to DOE when there is so much information about risk that needs to be evaluated.

C. There was a question on whether the Board is advising DOE to retrain all staff on safety culture.

R. DOE had indications that there was a leak in the tank but those were rejected and the pumping guide was not followed. There should be a written statement documenting worker expectations in this type of situation and all workers should be trained to follow safety culture processes.

C. [Ecology] The Board might be talking about something other than safety culture. DOE management was involved in the decision-making. There may have been some workers that wanted to follow the emergency pumping guide and were overridden by their management. The reasoning behind DOE's decision-making is unknown so it is hard to identify the cause of why the emergency pumping guide was not followed. Many workers on the Hanford Site are very conscious of safety concerns.

C. Safety culture is an integral part of entire Hanford Site operations; individuals are a part of the system so that any break in the chain can lead to overall failure of the system. Instead of blaming any one individual for mistakes, the entire workforce can be retrained to ensure everyone has the same knowledge base.

C. The emergency pumping guide, as currently written, states that workers should cease all other activities and deal with the leak. That is not necessarily feasible or even advisable. The adequacy of procedures may be questionable, which is a different kind of failure.

C. DOE does not have a space to put additional materials if another leaking DST is found.

R. There is space to move materials from one additional DST but that would come at the expense of the ability to pump and treat the SSTs.

C. DOE's current sampling plan does not seem adequate. Sampling frequency should be modified depending on the results of samples. If samples do not indicate any cause for concern the frequency can be decreased while any chemistry changes in the tanks or other indication of potential future concern should lead to increased sampling frequency. The experts should ultimately make the decisions on appropriate sampling frequency.

C. The Board would like the sampling program adjusted to increase sampling frequency because of the concern over AY-102. Routine sampling should be increased across the Hanford Site because there was a failure. DOE should be able to see how the tanks are performing and have a methodology for predicting failure in the liner over time from corrosion or other forces. Sampling should go beyond simply determining if there is a leak.

C. DOE's response to HAB Advice #263 (Double-Shell Tank Integrity) includes information about remaining material in the tanks and efforts to maintain the chemistry. This response does not include any information about sampling frequency.

Meeting participants reached consensus on the advice as edited. Hillary will send the draft advice to the entire TWC committee and agency liaisons for final review before the advice is brought forward at the June Board meeting. TWC will have a May committee call to briefly revisit the advice, if needed, and discuss topics for a potential June meeting.

Meeting participants

Board Member and Alternates

| | | |
|--------------------|---------------|---------------|
| David Bernhard | Becky Holland | Liz Mattson |
| Dirk Dunning | John Howieson | Melanie Myers |
| Norma Jean Germond | Pam Larsen | Dick Smith |

Others

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|-----------------------|------------------------|--------------------------------|
| Kim Ballinger, DOE-RL | Jeff Lyon, Ecology | Alex Nazarali, CTUIR |
| | Cheryl Whalen, Ecology | Nicole Addington, EnviroIssues |
| | | Hillary Johnson, EnviroIssues |

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| | | Sharon Braswell, MSA |
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