



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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December 8, 2020

20-NWP-192

Brian A. Harkins, Deputy Assistant Manager
Tank Farms Division
Office of River Protection
United States Department of Energy
PO Box 450, MSIN: H6-60
Richland, Washington 99352

Re: Department of Ecology's Review of *Single-Shell Tank Liquids Retrieval Study*, RPP-RPT-62098, Rev. 0, and Fulfillment of Tri-Party Agreement (TPA) Milestone M-045-093

References: See page 4

Dear Brian A. Harkins:

The Department of Ecology (Ecology) does not agree with the United States Department of Energy's (USDOE) conclusion that the submission of RPP-RPT-62098 (Reference 1) satisfied the requirements of TPA Milestone M-045-93. The Milestone states:

“Submit for Ecology’s review and approval, as a Primary Document, a report that includes the following: (1) a description and analysis of each alternative method and technology for removing drainable liquids from the SSTs; (2) a proposed selection of the preferred liquid removal method and technology for each SST identified in the SST Liquids Report; (3) a proposed sequence for removing drainable liquids from the SSTs identified in the SST Liquids Report.”

The current version of RPT-62098 does not adequately address items (2) and (3) of Milestone M-045-93. The liquid retrieval study does not identify the specific Single-Shell Tanks (SSTs) where USDOE's preferred technology would be implemented, as required by item (2). The study also fails to propose a sequence or schedule for implementation of USDOE's preferred technology, as required by item (3). Although the *River Protection Project System Plan* (Reference 2) describes an overarching sequence for the complete retrieval of waste from the SST System, none of the System Plan 8 scenarios take into account the potential to perform selective liquid retrieval in certain tanks, separate from and prior to full retrieval of those tanks.

In response to our comments on RPP-RPT-62098, USDOE acknowledged that there are outstanding details regarding drainable liquid volumes and unique tank configurations that will need to be addressed in order to support the deployment of a particular liquid removal technology for a specific SST. Ecology agrees that such details will be necessary to successfully implement the concept of selective liquid retrieval.

Ecology also believes that the following details should be considered when establishing the list of specific tanks where USDOE can implement the preferred liquid removal technology:

- The best estimates of when each tank was to be fully retrieved under the existing framework.
- The amount of drainable liquids currently remaining in each tank.
- The composition of the drainable liquids, if available.
- The consideration of the liner integrity of each tank.

Further discussions between our agencies may identify additional or better considerations when establishing the sequence of selective retrieval tanks.

Ecology notes that RPP-RPT-62098 has identified two technologies that were rated closely in USDOE's assessment of their potential to remove drainable liquids from the SSTs, Technology #5 and Technology #9. Ecology asks USDOE to work with us to develop a work plan and schedule to conduct field testing of these two technologies. USDOE should select two SSTs for this field testing, one for Technology 9 (Ventilation or Recirculation with Interstitial Liquid Dispersion) and one for Technology 5 (Enhanced Salt-well Pumping).

Ecology has indicated that the intended purpose of Milestone M-045-93 was to investigate ways to remove more drainable liquids from the SSTs in the near term, so that the risks of longer-term storage could be reduced. It was also intended to establish a sequence and schedule for implementing selective retrievals of the drainable liquids from the SSTs. Ecology believes this will be necessary to mitigate the impacts of continued delays in the tank waste treatment mission.

We must continually use lessons learned from our progress to date on the Hanford Site cleanup to improve our overall approach to long-term storage of mixed waste in unfit-for-use tanks. Given the scope of the problems we face and the limited resources available, Ecology would like to reiterate our commitment to working with USDOE in a collaborative manner on Selective Retrieval and other approaches to reducing risk to human health and the environment.

In the future, with regards to determination of milestone fulfillment, Ecology would strongly recommend that our agencies meet more frequently, and as early in the process as possible, to discuss document scope and development. We also suggest that we begin maintaining signed meeting minutes from these discussions in order to improve our collaboration, communication, and efficacy in fulfilling TPA milestone requirements.

We look forward to meeting with USDOE and reaching an agreement on the necessary modifications and schedule for re-submitting RPP-RPT-62098.

If you have any questions or concerns, please contact me at jeff.lyon@ecy.wa.gov or (509) 372-7914.

Sincerely,



Digitally signed by
Lyon, Jeffery (ECY)
Date: 2020.12.08
12:16:59 -08'00'

Jeffery J. Lyon
Tank Systems & Operations Project Manager
Nuclear Waste Program

kr/aa

References:

1. Document RPP-RPT-62098, Revision 0, dated May 2020, *Single-Shell Tank Liquids Retrieval Study*
2. Document ORP-11242, Revision 8, dated October 2017, *River Protection Project System Plan*

cc electronic:

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