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October 30, 1996

Mr. Bruce L. Nicoll
U.S. Department of Energy
P.O.Box 550 - S7-53
Richland, WA 99352

Dear ~~Mr. Nicoll~~ Bruce:

Re: The Initial Single-Shell Tank Retrieval System (ISSTRS) and Tri-Party Agreement Milestone M-45-04.

I am writing you to provide clarification of Ecology's position on the completion of the M-45-04 series milestones, and it's relation to the ISSTRS. According to the ISSTRS Mission Analysis Report (WHC-SD-WM-MAR-009, Rev. 1), the removal of any tank waste heel is outside the scope of ISSTRS. Heel removal activities will be performed with additional technologies provided by the Acquire Commercial Technology for Retrieval (ACTR) project. While I recognize that the Systems Engineering work done to date on tank waste retrieval clearly identifies the need for heel removal, I have the following concerns regarding the ISSTRS and M-45-04.

First, I want to make it clear that successfully providing the first retrieval systems for the SSTs must include all activities necessary to mobilize, retrieve, and transport the waste into the Double-shell Tank system. The ISSTRS alone, as currently envisioned, will not achieve all of these goals. Therefore, it is vital that the ISSTRS allow for the addition of heel removal technologies, and that, to the extent possible, the ISSTRS be made flexible and adaptable to these potential technologies. In other words, let's not build two separate retrieval systems, one for limited waste retrieval and one for completion of waste retrieval. The design of the ISSTRS will be occurring simultaneously with the demonstration of heel removal technologies under the Hanford Tank Initiative and ACTR. Integration of the potential design requirements of any candidate heel removal technologies with the final design of the ISSTRS must occur during this time, so that the retrieval systems installed for the initial four tanks will be completed in a single action where possible.

Second, the construction of the retrieval systems required by M-45-04 must include a complete retrieval system in order for this series of milestones to be considered complete. It should include both the Remove Limited SST Waste functions and the Remove Remaining SST Waste functions. There may be some changes made to the retrieval systems during retrieval operations, but in order

for a complete retrieval system to be in place, and M-45-04-T03 to be considered met, all systems should be designed, purchased, contracted, and or constructed prior to June 30, 2003.

Third, the ISSTRS identifies past-practice sluicing as the 'baseline' technology for retrieval. Past-practice sluicing (PPS) will likely prove to be a successful retrieval method for some of the SST wastes. However, the potential for leakage during PPS is high. With half of the 100 series tanks being assumed leakers, and more likely to follow in the years ahead, it is imperative that DOE seek alternate retrieval systems for the SSTs. The ACTR project has already identified promising technologies which could significantly reduce the potential for leakage during retrieval. The ISSTRS and subsequent retrieval systems for the balance of the SSTs, should be prepared to utilize these alternative technologies. Ecology believes that between now and the time full-scale retrieval operations begin significant progress can be made towards utilizing systems in addition to PPS, and retrieval program planning should adopt these alternate systems as they are demonstrated and become available. The PPS will continue to be useful for tanks which have a low risk of leakage, but every effort should be made to identify retrieval technologies which minimize the potential for leakage, and retrieval program planning should be prepared to implement promising components and systems.

Finally, I am encouraged by the changes in retrieval program planning, which are moving us towards a simpler, lower-cost system. In these times of increasing budget constraints, innovation and accomplishing more with less are necessary elements of a successful program. Ecology will continue to work with you and your staff to develop retrieval systems which accomplish the Tri-Party Agreement objectives as efficiently as possible.

Sincerely,

Scott E. McKinney
Nuclear Waste Program

SEM:djb

cc: Wendell Wrzesinski, DOE-RL
Gary Meyer, Lockheed Martin Hanford, Corp.
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