



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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September 7, 2001

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Mr. James E. Rasmussen  
United States Department of Energy  
Office of River Protection  
P.O. Box 450, MSIN: A5-15  
Richland, Washington 99352

Dear Mr. Rasmussen:

Re: Secondary Containment for Transfer Lines SN-277 through -280, and LIQW-702

On October 3, and November 13, 2000, representatives of the United States Department of Energy's Office of River Protection (ORP), the Washington State Department of Ecology (Ecology), and CH2M HILL Hanford Group, Inc. (CHG) met in Ecology's offices to discuss secondary containment of four (4) pipelines in the 241-SY Tank Farm and one pipeline in the 204-AR Unloading Facility. During these meetings, and in associated documents, ORP and CHG presented the following information:

- The transfer lines (SN-277, SN-278, SN-279, SN-280, and LIQW-702) are double walled lines, with the exception of a one-foot concrete encased section that penetrates a pit or building wall. The secondary containment for the lines stops at the outer pit or building wall surface. This results in twelve (12) inches of primary (inner) transfer line being directly buried in the concrete.
- The secondary containment is attached to the wall by a flange. The secondary containments have directly buried drain lines that penetrate the pit or building wall allowing the secondary containment to drain should the primary transfer line develop a leak.
- The hydraulic profile of each line is designed to allow drainage of the secondary containment to the pit or building which, in turn, provides drainage to compliant waste storage tanks; this configuration normally results in an extremely low risk to the environment should the primary transfer line leak.
- Two (2) of the lines have been used to transfer waste recently, while three (3) have not been used in the past decade. The status of each line is shown in Table 1 below.

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**Table 1. Use of Transfer Lines SN 277 through -280 and LIQW-702**

<b>Line Number</b>	<b>Recent Transfer History</b>	<b>Leak Test Method</b>	<b>Can Encasement be Inspected?</b>
SN-277	All 244-S and 244-TX transfers (30 since 1995)	Pit entry required	Possible
SN-278	Last used before 1990	Same	Same
SN-279	Same	Same	Same
SN-280	Same	Same	Same
LIQW-702	19 transfers (1996 to present)	Same	Same

Source: Handout, "241-SY Tank Farm and 204-AR Unloading Facility Transfer Lines Whose Secondary Containment Does Not Penetrate the Pit Wall," provided by P.C. Miller, 11/13/2000

Based on this information, Ecology has determined, per Washington Administrative Code Chapter 173-303, Section 640(4)(b), that with the exception of the down gradient portion of LIQW-702, the installed sections of the five (5) pipes that traverse the valve or pit walls do not meet the requirements for containment or detection of releases. Ecology has chosen to exercise enforcement discretion, and has declined, at this time, to take enforcement action with respect to these lines. Ecology urges ORP to expend its fiscal resources to support completion of existing legal commitments, consistent with Ecology's basis for exercising enforcement discretion in this instance, in lieu of upgrading these pipe sections.

Ecology may reverse this decision should new information become available, or if any changes to the pipelines in question are made that would materially alter the basis for it.

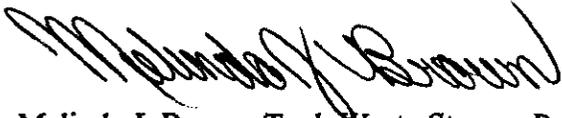
Also, Ecology will require that the closure plan for double shell tanks address these lines. It should specifically include a visual examination for any evidence of leaks around the pipe directly embedded in concrete, and chemical sampling of any potential leak points where the secondary containment flange abuts the outside of the pit or building.

In addition, because lines SN-278, SN-279, and SN-280 have not been in use during the last decade, Ecology is requesting that a hydraulic leak test be performed prior to any transfer through the lines. This leak test should include, at a minimum, a pressure at least 150% of the maximum operating pressure during liquid transfer and system flushing, for a minimum of one (1) hour, with less than a 5% pressure drop in each thirty (30) minute interval.

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If you have any questions or concerns regarding this letter, please feel free to contact me at (509) 736-3027.

Sincerely,



Melinda J. Brown, Tank Waste Storage Project Manager  
Nuclear Waste Program

MJB:BBK:sb

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