Hanford's Seven-Mile Radioactive Waste Transfer Line Inspected, Tests O.K.

RICHLAND, Wash., June 14 -- Westinghouse Hanford Company engineers succeeded in pressure testing a three-inch diameter, seven-mile-long line that will allow liquid high-level radioactive waste to be transferred from aging single-shell tanks to newer, safer double-shell tanks.

"The pipeline was inspected using a video camera and then filled with clean water and pressurized. It practically maintained constant pressure for the required full hour," said J. R. Biggs, Westinghouse Hanford Company's lead for this project.

Westinghouse Hanford Company is responsible for the safe operation and management of the 56 million gallons of radioactive waste in 177 underground storage tanks at the U.S. Department of Energy's Hanford site in southeastern Washington state.

The objective is to transfer all liquids into Hanford's 28 double-shell tanks because 68 of its 149 single-shell tanks are known or suspected to have leaked. Most of the single-shell tanks are in the West Area, and most of the double- shell tanks -- and the site's only operating evaporator -- are seven miles away in the East Area. Biggs says that by processing the waste through the evaporator, the waste volume in double-shell tanks will be considerably reduced.

Of the three one-million-gallon, double-shell tanks in the West Area, two are on the safety watch list and cannot be used. Only double-shell tank 102-SY is capable of receiving and transferring waste from the the West Area. So the first activity for the pipeline will transfer 500,000 gallons of radioactive liquid from tank 102-SY to a double-shell tank in East Area. By freeing up half of the available volume of tank 102-SY, it can be used as a transitional holding tank for liquids being pumped from single-shell tanks in the West Area en route to the evaporator in the East Area.

The transfer line was built in 1950-1952 and was last used in 1989. It is the only functioning pipeline available to transfer wastes between the West and East Areas until a new, state-approved line is built.

The Tri-Party Agreement, the federal facilities consent agreement between Washington state, the U. S. Department of Energy and the Environmental Protection Agency, calls for a double-wall pipeline system to replace the old one. Final design efforts are in progress with construction expected to begin in late 1995.

The old cross-site transfer line was built with six three-inch pipes in a covered, concrete reinforced trench. It was designed to prevent either groundwater leaking into it or waste leaking out of it. The line is buried under 10 feet of soil, so for inspection and other work, test risers (the access tubes) are located approximately every 100 meters.

Minor repairs will make it ready within a week, and following required administrative approvals, pumping of tank 102-SY will begin.

Photo available upon request. # # #

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