

Hanford's Newest Filling Station on the Way

George Grant Construction Company of Richland has been awarded a contract to build a new breathing air filling station adjacent to the Hanford Fire Station between 200 East and 200 West Areas. The facility will fill breathing air bottles for Self Contained Breathing Apparatus (SCBA) applications.

Construction of the 36' X 46' building will begin later this month. It will house two separate air compressors and be able to fill up to 600 air bottles per day.

“This is a big step forward in meeting the needs of CH2M HILL and the rest of the Hanford Site at a single location,” said Project Manager Greg McLellan. Right now, air bottles are filled at the Hanford Fire Station and at the HAMMER training facility, but neither of these locations was designed to handle the volume of bottles currently in demand at Hanford.

CH2M HILL is providing one of the two compressors to be installed in the facility. Total cost to CH2M HILL will be about \$700,000, but McLellan said the savings in transportation costs alone will more than pay for the facility in the first 24 months of operation.

“This is a win-win for all of us. Our demand for breathing air is about three times higher than the rest of the Hanford Site combined. Not only will this facility meet our daily requirements, it will also provide enough reserve capacity to meet the demand when existing equipment is shut down for maintenance,” McLellan said.

The new facility is scheduled to be completed in late January.

New Waste Retrieval Technology Explored

A new tool is being tested at CH2M HILL's Cold Test Facility that may be used to help retrieve some of Hanford's most stubborn tank waste. Known as the hydrolaser, the non-descript device is the heart of a project that will soon be demonstrated in single-shell tank S-112 in the 200 West Area.

The hydrolaser is a sophisticated nozzle system on a small track that shoots about six gallons of water per minute at a pressure of 30,000 pounds per square inch. It is manufactured by TMR Incorporated in Denver Colorado, and was originally designed for the nuclear industry to be used in the decontamination of contaminated buildings. It was brought to Hanford under a special contract to test its effectiveness for use in tanks.

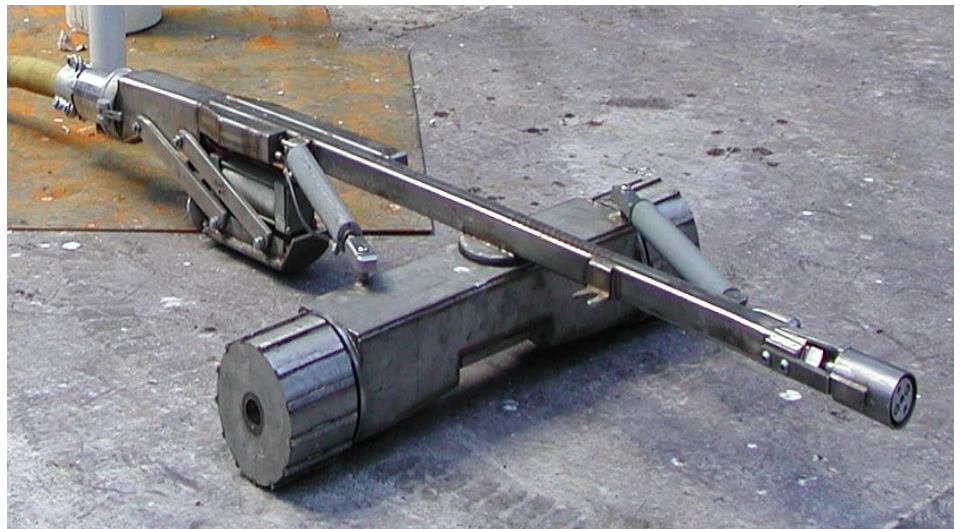
“This high pressure, low-volume tool holds promise in helping to break up and mobilize the hardest waste inside some of our tanks without adding a lot of water that would then have to be stored and treated,” said Rick Raymond, Director of S-Farm Retrieval Operations. He said the high-pressure, low-volume features are expected to help improve the effectiveness of retrieval, while at the same time, reducing the cost.

Approximately 96 percent of the waste in tank S-112 has been removed using a technique known as salt cake dissolution, but the remaining four percent will not dissolve readily, so new techniques will be used.

Both the Office of River Protection and the Washington State Department of Ecology have agreed to the use of the hydrolaser in tank S-112 as a demonstration project to determine its viability for broader use in Hanford tanks.

“Waste differs from tank to tank and we need a variety of tools at our disposal to keep our retrieval program moving forward. If it proves successful, the hydrolaser will take its place among our other technologies already in use,” Raymond said.

Tank S-112 is a 758,000 gallon single-shell tank built in 1950. Waste retrieval began in S-112 in September 2003 and was recently halted when the limits of retrieval technology were reached.



The high pressure, low volume hydrolaser will soon be tested in single-shell tank S-112 to determine its effectiveness in breaking up and mobilizing some of Hanford's most stubborn tank waste.