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DOE

HANFORD PROGRESS MARCHES ON! END OF AN ERA AT PUREX: CRITICALITY SYSTEM SHUT DOWN AFTER 40 YEARS

Hanford clean-up progress took a dramatic, visual step forward today when an instrument technician at Hanford's Plutonium Uranium Extraction (PUREX) Plant, shut down its criticality alarm system, symbolically ending an era at the 40- year-old plant.

The Department of Energy's Richland Operations Office is entering the final phase of shutting down the facility forever. Within a year, the Richland Operations Office will have completed the project ahead of schedule and millions of dollars under budget. Now scheduled for completion by September 1997, the deactivation team is striving for an even earlier goal . . . May 1997.

"Today's symbolic event is a visual demonstration of the determination and dedication of Hanford employees who are committed to cleaning up the Hanford site," stated James Mecca, DOE's Director of Transition Programs.

The criticality alarm, used to alert plant personnel in the event of an accidental nuclear criticality, is no longer required. This hazard has been eliminated now that the PUREX deactivation team has completed the removal and stabilization of the remaining plutonium left from processing. Parts from the current alarm mechanism, operational since 1983, will be used by another Hanford facility, eliminating the cost of purchasing new equipment.

PUREX is one of several former production plants at Hanford that are no longer needed but require costly maintenance and monitoring as long as radioactive and hazardous materials remain inside. Hanford management and operations contractor, Westinghouse Hanford Company, is working with the Department of Energy to speed the cleanout and shutdown of plants, such as PUREX, into a completely deactivated safe storage mode.

Accelerated deactivation immediately reduces risks and reduces the "mortgage" on these obsolete, contaminated plants, that is, the day-to-day costs of safekeeping. For example, when the deactivation of PUREX is completed early next year, annual costs will drop from \$34 million annually to under \$2 million.

PUREX deactivation, expected to be a five-year job, is now 13 months ahead of schedule and \$69 million under budget. Recycling, waste minimization and innovation has helped achieve this. Early in the project 2.5 million pounds of excess chemicals were sold to industry rather than being disposed of as waste. And last year, nearly 190,000 gallons of nitric acid containing uranium was shipped to BNFL in England for reuse, shortening the deactivation schedule by 10 months and saving DOE approximately \$37 million.

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NOTE TO EDITORS: In addition to the cleanout of plutonium gloveboxes at PUREX, another completed deactivation step was the remote recovery of irradiated fuel elements from three dissolver cells and their transfer to the K Basins for storage. And, a major milestone to flush waste from PUREX canyon vessels and piping was completed on April 26 -- seven weeks ahead of schedule.

PUREX -- the world's largest chemical separations plant -- came on line in 1956 to recover uranium and plutonium fuel irradiated in Hanford reactors for the nation's defense program . At more than 1000 feet long, it's about the size of 3 1/2 football fields laid end to end.

HISTORICAL NOTE: The U.S. Department of Energy's Richland Operations Office owns the Hanford Site in Southeastern Washington state. Hanford was established during the Second World War as part of the secret Manhattan Project to produce plutonium for the United States' nuclear weapons. Weapons material production was halted in the late 1980s, and the site is now engaged in the world's largest environmental cleanup effort to deal with the legacy of radioactive and hazardous wastes that resulted from the plutonium production era.