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Lack of Nuclear Safety Culture to Blame for Vit Plant Costs and Delays

Today the Department of Energy announced that Hanford's Waste Treatment Plant, being built to treat Hanford's inventory of 56 million gallons of high-level nuclear waste, is going to suffer more significant delays and cost overruns. This is but the latest round of such announcements, with the costs skyrocketing from an estimated \$4.3 billion to the current \$12.3 billion. Today, the costs are expected to increase by another \$800 to \$900 million. Instead of opening in 2009, the plant was predicted to begin operations in 2019. There was no word from DOE on how much of a delay to expect this time around.

Just 13 months ago, the DOE signed a Consent Decree agreement with the State of Washington setting forth new deadlines, which DOE now admits will be broken.

Management of this project has been under increasing criticism from several quarters, including the GAO, the Defense Nuclear Facilities Safety Board, and internal critics. Two high-level engineers and one senior scientist have gone on record with very serious concerns about the technical viability of the design of the plant, especially in relation to the pretreatment of waste portion of the facility. The concerns of these senior officials has been suppressed and ignored, and the officials have alleged reprisals against them.

Improvements needed

Improvements in several key areas needed before work at the Waste Treatment Plant moves forward.

The Mixing Issue

Hanford Challenge urges that the DOE put more focus on the issue of mixing of the high-level nuclear waste in order to prevent hydrogen gas buildup (which creates a risk of a fire or explosion). There needs to be a system demonstration of all components at a large scale. If this is not done, the cost to correct the plant or live with the inadequate plant will dwarf any current cost increase.

Data to back up assertions

The public needs more information on the alleged 80% of the waste that can be treated. We have been told that the Waste Treatment Plant will treat 80% of the 56 million gallons of high level nuclear waste. Where did this number come from, and what is the basis for it? All waste will contain solids and become non-Newtonian in pretreatment. Less than .0001% of the waste has actually been analyzed and tested. More testing is needed to verify that the costly systems being built will work.

Safety Culture

All personnel at the Waste Treatment Plant need assurances that raising technical and safety concerns is an expected part of a strong safety culture. The Department of Energy and contractor can send a signal of a vibrant safety culture by ceasing to punish whistleblowers who have come forward in the past, and put in place safety culture systems that are independently assessed. Also, a recently touted survey purportedly showing a healthy safety culture is misleading. ...Bechtel is conflating occupational safety culture with nuclear safety culture. All the more reason for a truly independent review, not conducted by hand-picked consultants anxious to serve their customer.

Tom Carpenter, Executive Director of Hanford Challenge, stated, "DOE needs to change its management structure to focus on nuclear safety, engineering quality and design, and establishing a rigorous nuclear safety culture. This means empowering the scientists and engineers who foresaw the dangers some time ago, yet were suppressed and punished for raising their concerns. It also requires that DOE identify and deal with those who engaged in such suppression and retaliation, and take steps to assure that such behaviors are prevented."

Hanford Challenge also believes that DOE needs to take the time necessary to assure that the Waste Treatment Plant will operate safely and effectively. To that end, the DOE should stand down all work relating to fabrication and construction of the pretreatment portion of the plant until a thorough, independent technical review is undertaken.