



## Summary of the Department of Energy's Proposal to Amend the Consent Decree

The Department of Energy has proposed a phased approach to completing the objectives of the Consent Decree by beginning to vitrify tank waste as soon as practicable, continuing progress on resolving technical issues related to the Pretreatment and High Level Waste Facilities, and completing Consent Decree single-shell tank waste retrievals by the current 2022 deadline.

### Begin Waste Vitrification By December 31, 2022

- DOE's proposal re-envision how the Waste Treatment and Immobilization Plant will operate. Currently all waste must be processed through the Pretreatment Facility, which has major unresolved technical issues.
- Rather than wait for technical issues to be resolved prior to making progress on any of the waste streams, DOE developed a new approach called Direct Feed Low Activity Waste, which requires a new capability known as the Low Activity Waste Pretreatment System (LAWPS).
- LAWPS will allow DOE to begin feeding some of the low activity, liquid waste directly to the Low Activity Waste Facility for vitrification.
- The proposal includes certain fixed milestones for implementing this approach, including milestones related to LAWPS and hot commissioning by December 31, 2022, when glass containing low activity waste will first be made.





### **Resolve Remaining Technical Issues**

- Significant technical issues remain unresolved for the Pretreatment and High Level Waste Facilities, including issues associated with inadequate mixing, erosion and corrosion of key components, the potential for nuclear reactions within the vessels, and potential for hydrogen buildup that could lead to combustion within the vessels.
- The Department has made substantial progress establishing a robust path forward for resolving these issues, but more analysis and testing is needed to fully resolve the issues.
- DOE believes that a simpler design for the Pretreatment Facility will significantly decrease the time for the testing needed to resolve the mixing concerns within the pulse jet mixed vessels. Replacing larger vessels that had multiple designs with smaller, standardized vessels is expected to improve operability and maintain the same level of throughput.
- The proposal includes fixed milestones associated with the process for resolving these technical issues and for developing a new capability called the Tank Waste Characterization and Staging (TWCS) facility.
- The TWCS facility will help resolve technical issues by ensuring waste fed to the Pretreatment Facility is properly mixed and has physical characteristics that can be safely processed by the Pretreatment Facility and the High Level Waste Facility.

### **Increase Efficiency in Single-Shell Tank Retrievals and Complete Next 9 Tanks by 2022**

- The Department has also proposed adjusting some of the tank retrieval milestones in the Consent Decree to maximize the efficiency in the retrievals by establishing the above-ground infrastructure for the retrievals to be constructed prior to beginning retrieval operations for the next nine tanks.
- The September 30, 2022 completion date for Consent Decree single shell tank retrievals remains unchanged.

### **A Defined Process for Setting Future Milestones**

- The proposal embodies a hybrid approach by providing a set of near-term, fixed deadlines, along with a commitment by DOE to propose and establish future milestones within specified time periods once sufficient information is available on which to base those milestones.
- Achievement of these events will be fully transparent to Washington State officials, as will be the associated establishment of binding milestones.