

Savannah River Site Watch https://srswatch.org/
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Public Interest Group Requests DOE Prepare "Programmatic Environmental Impact Statement" on Plutonium Disposition, in Support of Recommendation by National Academies of Sciences Panel

Plutonium Disposition via "Dilute & Dispose" to Bring at Least 22.5 Metric Tons More of Plutonium to Savannah River Site, On Top of 11.5 MT of Pu Already at SRS, Must Not be Stranded if Project Changes

Link to SRS Watch's August 11 Letter to DOE on Plutonium Disposition and Need for PEIS

Columbia, SC – The U.S. Department of Energy must prepare an overarching environmental analysis of slow-moving plans to process and dispose of surplus weapons plutonium at Savannah River Site and other DOE sites, according to a request made by Savanna River Site Watch, a public interest group providing oversight of SRS and DOE.

The August 11, 2020 letter to key DOE officials highlights reasons for preparation of a "Programmatic Environmental Impact Statements" (PEIS) on plutonium disposition and affirmed support for a recent recommendation by a panel of the National Academies of Sciences (NAS). A PEIS, prepared under the National Environmental Policy Act, would review the need for the project, assess DOE system-wide plutonium-disposition impacts and would analyze various sites to be utilized, including SRS, Los Alamos National Lab in New Mexico and the Pantex site in Texas (where more than 15,000 plutonium pits removed from weapons are stored).

The NAS panel recommended on April 30, 2020 in a document entitled *Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant* that "The Department of Energy should implement a new comprehensive programmatic environmental impact statement (PEIS) to consider fully the environmental impacts of the total diluted surplus plutonium transuranic (DSP-TRU) waste inventory (up to an additional 48.2 MT) targeted for dilution at the Savannah River Site and disposal at the Waste Isolation Pilot Plant (WIPP)." In its letter, SRS Watch affirmed the recommendation of the NAS panel, which SRS Watch believes that DOE is considering.

"DOE can now put plutonium management on a better track by agreeing to prepare a Programmatic EIS on its slow-moving and ill-defined plutonium-disposition plan," said Tom Clements, director of Savannah

River Site Watch. "While DOE is performing poorly in managing plutonium, one thing is very clear: the citizens of South Carolina do not want another gram of plutonium brought in to SRS until the 11.5 metric tons stored at the site are removed and the PEIS would have to address that controversial matter," said Clements.

Currently, DOE is pursuing a process called "dilute and dispose," whereby an initial 6 metric tons of plutonium would be mixed with a secret inert material (previously called "stardust") at SRS, for disposal as transuranic waste in the DOE's Waste Isolation Pilot Plant in New Mexico. DOE has said that it would dispose of a minimum of 34 MT of plutonium via "dilute and dispose" (D&D) yet environmental analysis of that option for such a large amount of plutonium is lacking. SRS already stores 11.5 MT of plutonium in the old K-Reactor and some of that material is slowly being processed via D&D. (See SRS Watch letter for details about the D&D processing rate.)

As DOE made a costly mistake in 2002 in cancelling the program to immobilize surplus plutonium in high-level nuclear waste at SRS, the agency eventually hit upon the D&D technique when it was clear that the mismanaged plutonium fuel (MOX) project was stumbling and would fail. MOX was formally terminated in October 2018 and DOE has proposed turning the abandoned MOX building into a facility to make plutonium "pits" (triggers) for nuclear warheads. DOE is refusing to prepare the mandated PEIS on the pit project, which would have to be prepared in parallel with the PEIS on dilute & dispose. SRS Watch and sister organizations in the Alliance for Nuclear Accountability – Nuclear Watch New Mexico and Tri-Valley CAREs – have repeatedly called on DOE to prepare the required PEIS on plutonium pit production.

The U.S. Senate, in a recent report to accompany the current defense bill (National Defense Authorization Act for Fiscal Year 2021) has suggested that plutonium purification, needed to supply a pure plutonium form to the D&D process, be moved from Los Alamos to SRS or another site. The Pantex site has also been suggested for plutonium purification as well as D&D activities, which would mean a shift in D&D activities from SRS, where D&D has been moving at a glacial pace, to Pantex.

SRS Watch highlighted in its letter that the U.S. Senate recently recommended that purification of plutonium at the Los Alamos National Lab, via the Actinide Recovery and Integrated Extraction System (ARIES), should be reviewed for relocation to another site, possibly SRS. DOE's Pantex site is a likely choice for plutonium disposition activities as that's where the plutonium supply is located and utilizing Pantex would mean far less transportation and the risks associated with it.

"DOE's chronic inability over the last 25 years to manage the plutonium stockpile in a holistic, coordinated way underscores deep-seated management problems within DOE that could result in additional failures, including yet more plutonium being stranded at SRS," said Clements. "Preparation of a PEIS on plutonium disposition and a PEIS on plutonium pit production could help DOE get out of the plutonium-management crisis in which they now find themselves," added Clements.

Once the PEIS was prepared then site-specific Environmental Impact Statements could proceed.

Notes:

SRS Watch letter to DOE on "Need for Programmatic EIS on Plutonium Processing and Disposition via Dilute & Dispose; Must be Coordinated with PEIS on Plutonium Pit Production for Nuclear Weapons," August 11, 2020:

https://srswatch.org/wp-content/uploads/2020/08/Letter-SRS-Watch-to-DOE-on-need-for-PEIS-on-plutonium-disposition-August-11-2020.pdf

National Academies of Sciences report Review of the Department of Energy's Plans for Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant, April 30, 2020:

https://srswatch.org/wp-content/uploads/2020/05/Downblending-report-April-30-2020.pdf

Senate report language to go with National Defense Authorization Act for Fiscal Year 2021, calling for a review of "alternative locations" for plutonium processing, see section entitled *Responsibility for Los Alamos Plutonium Facility 4 and Technical Area 55* on page 416:

https://www.congress.gov/116/crpt/srpt236/CRPT-116srpt236.pdf

News release on required PEIS on plutonium pit production: *Groups Petition DOE to Stop Stalling on Pit Production Legal Requirements; Stage Set for Environmental Lawsuit*, June 24, 2020:

https://srswatch.org/groups-petition-doe-to-stop-stalling-on-pit-production-legal-requirements/