

Savannah River Site Watch
https://srswatch.org/
Columbia, South Carolina
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Contact: Tom Clements, director, SRS Watch, 803-834-3084, srswatch@gmail.com

DOE Oversight Board Releases Critical Assessment of SRS Plutonium Pit Plant, Presents Safety
Observations in Advance of Facility's "Preliminary Design,"
to "Ensure Adequate Protection of Public Health and Safety"

Ruling by Federal Judge on Public Interest Lawsuit on the Plutonium Pit Issue Expected Soon

Columbia, SC -- The Defense Nuclear Facilities Safety Board (DNFSB), an independent agency that conducts oversight of Department of Energy projects and operations, has prepared its first initial review of the proposed plutonium pit plant slated for the Savannah River Site. Finding DOE plans lacking, the board has presented eight substantive recommendations.

The DNFSB report, titled <u>Conceptual Design Review of the Savannah River Plutonium Processing</u>
<u>Facility</u>, was dated November 5, 2021 and was quietly posted on the board's website in late January.

The DNFSB has committed in the board's 2021 report to Congress that the independent review of the "conceptual design" of the SRS Plutonium Bomb Plant would be completed in 2021.

DOE's National Nuclear Security Administration (NNSA) has proposed converting the partially finished Mixed Oxide Fuel Fabrication Facility (MFFF) at SRS into a bomb factory capable of producing 50 or more plutonium pits per year. A pit is the core of a nuclear weapon and DOE wants new pits to initially fuel two new types of nuclear weapons, both designed to keep the US on the dangerous footing to fight a full-scale nuclear war.

The DNFSB report addresses areas of major concern with the pit plant preliminary design, including worker safety, seismic events, explosion events, release of radiological materials (e.g. plutonium powder) and proper application of design standards to key systems, structures and components.

Areas of particular concern covered in the report include *Portions of the Accident Analysis Underestimate the Radiological Release from a Seismic Event* and *Safety Analyses Inadequately Document Potential Explosion Events*.

The report cites a number of "explosion event" possibilities, and says that "the current safety analyses provide insufficient documentation of assumptions supporting the...overall accident progression for

some explosion events, [or the] resulting amount of radiological material released. Explosions reviewed include a hydrogen or steam explosion and "several explosion events involve furnaces containing molten plutonium." The pit plant could use molten plutonium to cast the pits.

The public interest group Savannah River Site Watch notes that the DNFSB review did not include the status of the engineering and construction of the partiality constructed plutonium fuel (MOX) building, which is being proposed to be converted to the plutonium pit plant. SRS Watch and other sister groups with the Alliance for Nuclear Accountability (ANA), which has meet with the DNFSB commissioners on a host of issues, including pit production, will raise this matter in future meetings with commissioners and staff.

"Given DOE's failure to properly design and carry out construction of the MOX plant, the role of the DNFSB in providing oversight of the facility into a plutonium pit factory is vitally important," said Tom Clements, director of the public interest group Savannah River Site Watch. "As DOE is self-regulating and provides minimum information to the public about details of its constructive activities, the DNFSB will play a critical role in providing information to the public about DOE's challenging pit project."

The DNFSB prepared the report after NNSA reached "Critical Decsion-1" for the pit plant, on June 24, 2021. CD-1 is when a conceptual design and initial cost estimate are prepared. On-going involvement by the DNFSB in the pit issue will continue and SRS Watch will monitor those efforts, according to Clements.

The most recent cost estimate was about \$11 billion to convert the MOX plant into a pit plant, but this ignores the sunk cost of about \$8 billion wasted on the construction of the MOX plant. This means that the cost for construction and conversion of the pit plant is pushing a stunning \$20 billion. Congress has so far refused to investigate the mismanagement by NNSA and contractors of the failed MOX project through request for that continue to be directed to Representative Adam Smith, chair of the House Armed Service Committee.

SRS Watch currently awaits a response from NNSA to a Freedom of Information Act request on "lessons learned" from NNSA's mismanagement of the bungled MOX project. The NNSA FOIA office has indicated a target date for a response is March 28, 2022. SRS Watch was recently stunned to learn, in response to another FOIA request, that the US Nuclear Regulatory Commission had conducted no lesson learned review of its regulation of the botched construction of the MOX plant, raising questions about preservation and archiving of key documents related to oversight of construction of the facility.

SRS Watch, Nuclear Watch New Mexico and Tri-Valley Cares (all members of ANA) - represented by the South Carolina Environmental Law Project (SCELP) - filed a federal lawsuit against DOE and NNSA on June 29, 2021 for the failure to prepare a comprehensive environmental review, a Programmatic Environmental Impact Statement (PEIS), on the impacts of pit project at all DOE sites. The federal court in Columbia, SC is expected to rule any day of the case, with three possible outcomes: ruling in favor of the plaintiffs, in favor of DOE/NNSA, or a requirement for a hearing on the matter.

Notes:

1. DNFSB's report on Conceptual Design Review of the Savannah River Plutonium Processing Facility, posted January 24, 2022:

https://www.dnfsb.gov/sites/default/files/document/25101/Conceptual%20Design%20Review%20of%20the%20Savannah%20River%20Plutonium%20Processing%20Facility%20[2022-100-015].pdf

2. DNFSB reports, including weekly SRS reports, posted here:

https://www.dnfsb.gov/documents/reports

3. DNFSB 31st Annual Report to Congress, March 23, 2021,

https://www.dnfsb.gov/sites/default/files/document/23071/31st%20Annual%20Report%20to%20Congress%20[2021-100-009].pdf

Page 4: "In 2020, the Board's staff closely followed the development of the conceptual design of the Savannah River Plutonium Processing Facility. The Board's staff also observed numerous meetings between NNSA's review team and the NNSA contractors. The Board's staff plans to complete an independent review of the conceptual design in 2021."

4. SRS Watch news, December 20, 2021: Stunning Admission by the NRC: No Review of its Regulation of Failed Plutonium Fuel (MOX) Project at SRS!,

https://srswatch.org/stunning-admission-by-the-nrc-no-review-of-its-regulation-of-failed-plutonium-fuel-mox-project-at-srs/

5. SRS Watch FOIA request (FOIA 21-00282-R) to DOE's National Nuclear Security Administration for NNSA's "lessons learned" on mismanagement of the bungled plutonium fuel (MOX) project, NNSA acknowledgment letter dated August 3, 2021; on Feb. 22, 2022, NNSA said an Estimated Time of Completion" (to provide documents) was March 28, 2022:

https://srswatch.org/wp-content/uploads/2022/03/ACK-LTR-from-NNSA-MOX-lessons-learned-to-SRS-Watch-August-3-2021.pdf

6. South Carolina Environmental Law Project (SCELP) webpage on plutonium pits and the federal lawsuit (case number 1:21-cv-01942-MGL):

https://www.scelp.org/cases/plutonium-pits