



Savannah River Site Watch

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For Immediate Release

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Redacted DOE Plutonium Disposition Report Obtained, Gives Details of \$47.5 Billion to \$110.4 Billion Yet to be Spent on Plutonium Fuel (MOX) Boondoggle, Finished in 2059 to 2115

Aerospace Report Affirms that MOX Project at SRS Not Sustainable at Current Funding Level

“Plutonium Disposition Study Options Independent Assessment” linked here:

http://www.srswatch.org/uploads/2/7/5/8/27584045/aerospace_final_redacted_plutonium_disposition_tor_april13_final_release_050815.pdf

Columbia, SC -- A long-awaited report commissioned by the U.S. Department of Energy (DOE) on costs for two methods of plutonium disposition was released to some members of the public by Congress late on Friday afternoon, May 8. The redacted report provides details on the skyrocketing cost estimate for the problem-plagued plutonium fuel (MOX) project now under construction at DOE's Savannah River Site (SRS) in South Carolina, one of the costliest U.S. Government construction projects ever undertaken.

The report confirms what Savannah River Watch has been saying - that the current funding level of \$345 million per year has placed the project on a shut-down track. The report, using the term “real year” (RY) for equivalent cost in future years, states that the MOX plant “construction cannot be completed at current (FY14) funding level (350M RY\$/year cost cap on construction/capital) and the assumed escalation rates (4% construction and capital, 2% labor).”

“The information in the report is another huge blow to the mismanaged MOX project, which was already suffering from a DOE decision made earlier on the same day to back away from its preference to dispose of surplus weapons plutonium as MOX fuel,” said Tom Clements of Savannah River Site Watch. “Congress must pay close attention to the conclusions in the report and realize that the last justifications to continue wasting money on the MOX boondoggle have ended. MOX is proving to be like an ever-weakening boxer losing round after round but still managing to stagger back onto its feet for yet more punishing blows that in the end will only lead to a loss. MOX is severely damaged and bleeding heavily and no amount of care by its political minders can patch together a way forward to survival.”

The redacted report states at the top that it has been “APPROVED FOR PUBLIC RELEASE BY NNSA, MAY 8, 2015. PROPRIETARY / SENSITIVE INFORMATION HAS BEEN REDACTED” but it is unknown if the DOE's National Nuclear Security Administration (NNSA) distributed the report in any public way. Key public interest groups did not receive the document directly from NNSA.

The report was released on the same day that a DOE environmental process on MOX formally concluded with MOX no longer being the “Preferred Alternative” for plutonium disposition. SRS Watch supports immobilization of plutonium in high level waste as the best option.

The report was prepared for NNSA by Aerospace Corporation, a Federally Funded Research and Development Center (FFRDC) chosen by DOE to do the report after it was required to do so by Congress in the Omnibus spending bill passed in mid-December 2014. Congress required a review of costs of two plutonium disposition options: MOX fuel fabrication and irradiation and the “Downblend Option.” The National Defense Authorization Act of Fiscal Year 2015 also requires a second plutonium disposition report on more plutonium disposition options to be released in September of this year.

The report states (on page 24) that approximately \$9.4 billion are required to complete the MOX plant (“at 85% confidence”). With \$4 billion sunk, thus putting the cost of the mismanaged MOX plant near the \$12.3 billion figure reported by NNSA in the DOE’s Fiscal Year 2016 budget request. The MOX plant is under construction by CBI AREVA MOX Services and the company faces construction problems, admitted by the NNSA on March 25, as well as fraud allegations for improper approval of construction work orders. Aerospace avoided discussing those serious and potentially costly matters.

There is no indication that Congress has interest in increasing the \$345 million level or has money to do so and, according to SRS Watch, the MOX project has thus been debilitated and is not viable. On April 28, the Obama Administration objected to the \$345 million funding level by the U.S. House and maintained its opposition “to language in the bill that requires the Secretary of Energy to continue construction of the Mixed Oxide Fuel Fabrication Facility.”

The Aerospace report confirms figures included in a summary of the document obtained by the Union of Concerned Scientists on April 22 – that the “to go” cost of the MOX project looking forward, not including the prior year expenditure of about \$4 billion on the MOX plant, is from \$47.5 billion (at a \$500 million/year funding level) to \$110.4 billion (at a \$500 million/year spending level).

At the \$375 million per year funding level, the MOX plant would start operation in 2100 and the project would conclude in 2115, with a MOX plant operating cost of greater than \$3 billion per year.

At the \$500 million per year level the MOX project would start operation in 2044 and be finished with its mission in 2059, with an annual operating cost of between \$1.1 billion and \$1.3 billion.

The annual operating cost figures for both options are well beyond the figure of around \$800 million per year that SRS Watch has been saying would be needed yearly for all phases of MOX plant operation and support activities. The Aerospace estimates do not include MOX plant decommissioning, demolition and return to green field, costs that would be substantial. Likewise, the report only mentions problems posed by lack of reactors to use MOX. The report does not discuss potential design issues or technical problems with the MOX construction, start-up or operation.

Despite requests by SRS Watch, AREVA, CB&I AREVA MOX Services and political boosters of MOX (Senators Lindsey Graham and Tim Scott and Representative Joe Wilson) have refused to release their cost estimates for the MOX project, leaving them with little basis for complaining about the Aerospace cost estimates or its methodology.

Costs for blending down and disposing of plutonium in the now closed Waste Isolation Pilot (WIPP) in New Mexico is determined by Aerospace to be \$17.2 billion and the project would end around 2049. The report goes on to recognize that WIPP poses challenges given that it is currently shut down, that it has capacity limits and that the law governing WIPP – the Land Withdrawal Act – would face opposition if it had to be changed. The report affirms that “In the absence of WIPP, another facility would need to be constructed and certified for use, which would add significant time and cost to the Downblend Option.” (p. 33)

In a nod to SRS Watch, the report acknowledges “that Nuclear activist groups are highly active in South Carolina” on the MOX issue and may have qualitative impacts on the project. (page 33)

Aerospace commented in the report about a meeting at SRS on January 27-29, 2015 in which they met with a host of SRS officials and contractors about plutonium disposition. (page 7)

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Notes:

Aerospace Corporation redacted report entitled “Plutonium Disposition Study Options Independent Assessment,” April 13, 2105, linked here on SRS watch website:

http://www.srswatch.org/uploads/2/7/5/8/27584045/aerospace_final_redacted_plutonium_disposition_tor_april13_final_release_050815.pdf

NNSA Final Supplemental Environmental Statement of plutonium disposition website, May 8, 2015 – NNSA reverses position in support of MOX option in reactors owned by the Tennessee Valley Authority

<http://nnsa.energy.gov/aboutus/ouroperations/generalcounsel/nepaoverview/nepa/spdsupplementaleis>

“TVA awaits decision on getting fuel made from surplus nuclear warheads,” Chattanooga (TN) Times Free Press article, May 6, 2015 – linked here:

<http://www.timesfreepress.com/news/business/aroundregion/story/2015/may/06/mixed-oxide-fuel-plant-loses-doe-urgency/302627/>

SRS Watch news release on plutonium disposition environmental process that ended with MOX as no longer being the “preferred alternative,” May 4, 2015 – with links to MOX plant photos that can be used with credit

http://www.srswatch.org/uploads/2/7/5/8/27584045/srs_watch_seis_terminated_no_mox_may_4_2015.pdf

Union of Concerned Scientist news release with link to 1-page Aerospace cost summary:

http://www.ucsusa.org/news/press_release/doe-mox-report-summary-0492#.VU1hjJNRLnl

Obama Administration position against House Energy & Water language to continue MOX plant construction, April 28, 2015 – linked here:

https://www.whitehouse.gov/sites/default/files/omb/legislative/sap/114/saphr2028r_20150428.pdf

April 28, 2015

STATEMENT OF ADMINISTRATION POLICY

H.R. 2028 — Energy and Water Development and Related Agencies Appropriations Act, 2016

Disposition of Weapons-Usable Plutonium. The Administration objects to language in the bill that requires the Secretary of Energy to continue construction of the Mixed Oxide Fuel Fabrication Facility. This language is unnecessarily restrictive and would preclude alternative, and potentially more cost-effective, approaches to implementing U.S. commitments in the 2000 Plutonium Management and Disposition Agreement and its 2010 annex to dispose of excess weapons plutonium. DOE contracted for an independent validation of costs for plutonium disposition alternatives in accordance with congressional mandates. The results of that analysis will inform the Administration's approach to plutonium disposition. Information on the first phase of that analysis was provided to the Congress on April 21st.

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