



Savannah River Site Watch

Comment of Tom Clements, Director, Savannah River Site Watch, www.srswatch.org, at Nuclear Regulatory Commission Meeting on MOX Plant Construction, Aiken, SC, January 15, 2015

Is the NRC's 10-Year License Extension for the MOX Plant Construction a Prelude for More Delays?

As most aspects of the U.S. Department of Energy's troubled MOX program are being hidden from the public, as part of an apparent cover-up by DOE's National Nuclear Security Administration and its contractors, a public meeting on the role of the NRC in regulating the MOX plant construction is welcome.

For Fiscal Year 2015, it is still unclear how much construction funding the MOX plant will receive, but the amount appropriated for MOX construction and "other project costs" is \$345 million. This figure is far below the approximately \$800 million needed from Congress every year for the next two decades to make the project viable. Likewise, the \$345 million is a defeat for Senator Lindsey Graham, who got a figure of \$400 million for MOX construction through the Senate Energy & Water Subcommittee in June 2014.

Senator Graham's defeat and the refusal of him and his NNSA and CB&I MOX Services allies to make any presentation that MOX can be made financially viable and how Congress can fund it out of a stressed DOE budget is a big red flag concerning the fate of the program. Given the funding problem, we can thus expect in the FY 2106 budget request that DOE will once again to attempt to put the MOX plant construction on "cold standby." Is the NRC prepared to monitor shut-down activities if it proceeds?

On January 12, 2015, DOE released a report entitled *Improving Project Management*, in which the MOX project was presented as a case study of a poorly managed DOE program. It is stated in the report that "The MOX project has expended approximately \$4 billion and is approximately 50 percent complete. Estimates for the capital work range from \$8-12 billion depending on the funding profiles." This amount for construction is higher than the \$7.7 billion reported in the FY 2015 budget request. The overall cost of the MOX project was reported by DOE in April 2014 to be over \$30 billion, far above the estimated cost of \$1.1 billion in FY 2001, as cited in the report. The "50% complete" figure differs from the NRC's "60% complete" language of January 15, 2015. Without documentation, the 60% figure has been presented many times over the last two years by some politicians and MOX boosters. This leaves one to conclude that construction progress is virtually frozen or not easily quantifiable and that any claims of percentage complete are suspect. Can the NRC demonstrate that the MOX project is indeed 60% complete?

The *Improving Project Management* report goes on to outline a number of problems faced by the project which has caused the cost to skyrocket and caused mounting schedule delays, including:

...that the design was significantly less mature than had been reported; the risks associated with meeting U.S. regulatory and building codes were not well understood; and the current state of the nuclear industry's supply chain in both labor and material procurements was significantly underestimated. Design costs continued to grow, construction and procurement bids greatly exceeded estimates, and technical staff turnover was much higher than anticipated. Insufficient

research into the supply chain's ability to meet the projects rigorous Nuclear Quality Assurance-1 (NQA-1) criteria limited available sources and significantly increased oversight and procurement costs. (page 22)

That CB&I AREVA MOX Services had to request the extension of the construction authorization (CA) period is an admission of the host of long-known problems faced by the project. In its slides of today on the construction authorization extension request, the NRC sites the usual list of reasons provided by the licensee for the need for construction authorization extension - including inadequate funding, shortage of qualified vendors, shortage of qualified workers and a "two-year delay between issuance of NRC CA and start of construction."

Should the NRC have taken into account things beyond its jurisdiction, competency or regulatory authority in considering the construction authorization request? Congressional appropriations for the MOX project is clearly not within the NRC's expertise or area of oversight. But, there are questions pertinent to the NRC concerning budget impacts. Given the reduced budget, have any safety-related jobs been eliminated or have construction activities been eliminated or modified which have safety impacts and are any short cuts being taken to avoid further delays to any project schedule (if such a schedule actually exists)?

Lack of qualified vendors and workers reflects poor planning on the part of the licensee and is not directly of regulatory concern to the NRC unless those issues impact ability to construct the facility according to regulations. Likewise, any claim of a "delay" in start of construction is not an NRC matter and any claimed "delay" may well have been due to internal matters with the contractor and DOE. That many problems were foreseen, yet ignored, by the licensee and the National Nuclear Security Administration does not lead to the apparent conclusion by the NRC that mismanagement and poor planning is a valid reason to issue a 10-year construction authorization extension, valid until 2025.

Though the DOE's April 2014 *Report of the Plutonium Disposition Working Group* says that "in August 2012, the MOX facility contractor submitted a baseline change proposal for the facility" by which hot start-up of the MOX plant would be extended "by 3 years to November 2019," there really is no firm publicly known schedule or cost for the MOX project. The current situation with the project leads to the conclusion that the schedule will be further delayed and that costs will continue to increase. The NRC's approval of the license extension essentially embraces the unfortunate situation of the poor project management by NNSA and CB&I AREVA MOX Services.

As the NRC has taken into account the problems outside its scope in reviewing the status of the license, it is incumbent upon the NRC to now reveal just when it thinks that the project will be concluded within the additional 10 years it has allotted for construction. At the outside, only a few years' extension was warranted and one must wonder why a full decade's extension was allowed when the project supposedly should be finished within 5 years from now. The NRC must have an idea that given the problems we have seen to this point that more such problems can be anticipated. The 10-year license extension thus appears to have put the NRC in the position of simply accepting that more construction delays are inevitable.

The Report to Congress: Disposition of Surplus Defense Plutonium at Savannah River Site dated February 12, 2002, cited a "Physical Construction Start date of FY2004, a Physical Construction Completion date of FY 2007, and the first fabrication of MOX fuel in FY2008." That presentation to Congress has proven to have been mere fantasy and misled congressional funders and the public about problems that were already developing. As NRC will have been aware of this as well, one can only wonder if the NRC has become complicit in further delays in the MOX project given the 10-year license extension that has been granted.