



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

APR _ 2 2018

OFFICE OF
AIR AND RADIATION

Mr. Rick Lee, Chairman
Governor's Nuclear Advisory Council
1200 Senate Street
460 Wade Hampton Building
Columbia, South Carolina 29201

Dear Mr. Lee,

Thank you for your letter of February 22, 2018 to Environmental Protection Agency Administrator Scott Pruitt regarding the Department of Energy's (DOE) intention to use the Waste Isolation Pilot Plant (WIPP) for the disposal of plutonium currently intended for conversion to mixed oxide (MOX) fuel. I am responding for the Administrator.

You raise several issues in your letter, including concerns about a possible "dilute and dispose" method that a DOE representative discussed with the Governor's Nuclear Advisory Council. I will address your issues generally in this response.

It is our understanding that Congress has directed the DOE to study the viability of the dilute and dispose process as a potential approach for the disposal of 34 metric tons (MT) of plutonium identified through the Plutonium Management and Disposition Agreement between the United States and Russia. The EPA is not aware of any other Congressional decision or definitive DOE action that would indicate that a final decision has been made to use a "dilute and dispose" approach for the 34 MT of plutonium.

There would be many steps and some time before the EPA formally becomes involved in exercising its regulatory responsibilities associated with the possible disposal of the 34 MT of plutonium at the WIPP. This includes the National Environmental Policy Act activities that the DOE would be required to do, in addition to the separate studies directed by Congress. As these different studies and analyses would be expected to take many years, it is premature for the EPA to address the issue of the disposal at WIPP of the 34 MT of plutonium.

You note that the EPA recently recertified that the WIPP is in compliance with the final disposal regulations at 40 CFR Part 191 and express the view that the DOE's March 2014 Compliance Recertification Application (CRA) did not fully address a number of issues related to the potential disposal of an additional 6 MT of surplus non-pit plutonium (which is separate from the 34 MT of plutonium currently intended for conversion to MOX fuel). At the time of the March 2014 CRA, the DOE had not completed the process (e.g., the Environmental Impact Statement) necessary for the DOE to include the material in the WIPP waste inventory.

Under the Land Withdrawal Act, the DOE is required to submit to the EPA, every 5 years, documentation of the WIPP's continued compliance with the EPA's final disposal regulations at 40 CFR

Part 191. *See* Pub. Law 102-579, Section 8(f) (Oct. 30, 1992). Based on the DOE's submission, the EPA then determines whether the DOE continues to be in compliance with those regulations. *Id.* Each CRA addresses changes and updated information from the period between the previous CRA and the new CRA. Because the final status of that material had not yet been determined, the DOE's March 2014 CRA did not address the 6 MT of surplus plutonium.

With the inclusion of the 6 MT of surplus plutonium in the 2016 WIPP inventory, the DOE determined that the surplus plutonium, after downblending, is defense related transuranic waste and is eligible for disposal at the WIPP. As a waste going to the WIPP, the DOE will need to appropriately incorporate the 6 MT of surplus plutonium in its CRA 2019 performance assessment and provide the EPA with the information necessary to evaluate its impacts on compliance with the applicable regulations. The EPA is working with the DOE to determine how the 6 MT and other issues will be addressed in the 2019 CRA.

I appreciate your bringing your concerns to the EPA's attention, and I want to assure you that the EPA will continue to fulfill its regulatory responsibilities relating to the WIPP. If you have any follow-up questions on this matter, please contact Lee Ann B. Veal, Director of the Radiation Protection Division, at veal.lee@epa.gov or 202-343-9448.

Again, thank you for your letter. I appreciate the opportunity to be of service and trust the information provided is helpful.

Sincerely,



Jonathan D. Edwards
Director

Office of Radiation and Indoor Air

cc: Lee Ann B. Veal, EPA/ORIA
Tom Peake, EPA/ORIA
Ray Lee, EPA/ORIA
Jack Bowles, EPA/OCIR
Wren Stenger, EPA/Region 6
Beverly Banister, EPA/Region 4
John Kieling, NMED
Todd Shrader, DOE/CBFO
Jeff Carswell, DOE/CBFO
Betsy Forinash, DOE/HQ



Savannah River Site Watch

South Carolina Nuclear Advisory Council, May 21, 2018

Tom Clements, Director, Savannah River Site Watch, www.srswatch.org

Mismanaged MOX Project at Savannah River Site: Time for Termination & Investigations

The welcome termination of the badly mismanaged MOX project comes as no surprise to those watching how the program has continuously stumbled since the start of construction on August 1, 2007 and fallen apart since then step by painful step.

The problems with the unsustainable MOX project have been many:

- Acquisition from AREVA of an out-of-date design based on the MELOX plant;
- Start of construction long before the MOX plant design was sufficiently complete;
- Massive cost overruns that took the cost estimate of around \$1 billion in 2000 to \$17.2 billion;
- Chronic schedule delays which have resulted in a completion date of 2048, 32 years beyond the target in 2007 – guaranteeing that no workers on the project today would be aware of construction history and would be less equipped to track paperwork;
- Large amounts of construction problems requiring “rework,” a situation that the contractor CB&I AREVA MOX Services never properly addressed – some of the incorrect installations may have been deliberate in order for contractors to falsely claim production goals had been met;
- Questions about proper documentation of construction activities and inspections, leading to the nagging possibility that the project could never get a final authorization from the U.S. Nuclear Regulatory Commission;
- Large staff turnover and hiring of workers who appear less qualified and less motivated;
- Aging of stockpiled equipment, leading to diminishment in quality and obsolescence;
- Reports by workers of poor management, lack of proper sequencing of work and continuous and uninvestigated accusations that the project was a “dog and pony show” or a “fake project” that was enriching contractors.

Based on my closely following this project since its inception in 1995 with the publication of the books by the National Academies of Sciences on approaches to disposition of surplus weapons plutonium, it was apparent that the project ceased years ago to be sustainable. It appears that the project may have been doomed from the start. Design of the MOX plant to meet U.S. standards and operational regulations may have been unworkable and its construction could never be completed.

With the issuance to Congress of Secretary of Energy Rick Perry’s letter on May 10 to “waive” spending of construction on the MOX project, as authorized by Congress and embraced by the Trump Administration and DOE, the project has now entered the long-awaited shut-down phase. Secretary Perry’s monumental step met the requirements outlined in the National Defense Authorization Act of Fiscal Year 2018, which was passed into law in December 2017. The termination approach was

likewise affirmed in the Omnibus spending bill of March 21, 2018, bringing the two Appropriations Committee on board for the first time with project termination.

Language in the legislation requires a 30-day period before Secretary Perry can halt construction spending after he exercises his waiver and delivers to Congress a report on the alternative to MOX. That report was also delivered on May 10.

The report, entitled *Surplus Plutonium Disposition Dilute and Dispose Option Independent Cost Estimate (ICE) Report*, appears to meet a congressional requirement for MOX termination and demonstrates, according to DOE, that the “dilute and dispose” (D&D) option is less than half the cost of MOX. That reports indicates that the life-cycle cost of MOX is about \$57 billion and the “dilute and dispose” option between a\$17.2 billion and \$19.9 billion. A termination plan is required by the contractor within 90 days and termination could take 3 or more years and cost \$1 billion. Construction spending could halt on June 10 or extend until the end of the current fiscal year.

Already, there are clear signs that termination is being implemented. Posting of new job hires by MOX Services has abruptly ceased. Workers, who have been leaving the failed project in large numbers, have been instructed not to install new components and are engaging in “make work.” Workers deserve to be informed about next steps. But that may not come until an all-hands meeting later this week. For one thing, workers must be treated with respect and we do not want to see a repeat of the V.C. Summer situation where thousands of workers were terminated with no notice and no severance pay. Why are politicians so silent about protection of workers and their families?

Work on the project should now immediately be shifted to what is needed to protect and secure the building, such as finishing the roof and closing the Temporary Construction Openings. Inventory of the vast amounts of equipment and components must be done and that material safely stored, sold or scrapped. Reuse of the MOX plant for plutonium “pit” nuclear bomb production has not been embraced by Congress, which is questioning the need for such a facility (a bone thrown on MOX termination to politicians wanting new, capital-intensive missions at SRS).

How did the MOX fiasco happen? Where was proper oversight and management of the project, both by the National Nuclear Security Administration and CB&I AREVA (Orano) MOX Services? The Government Accountability Office has indicated that this project had risks of fraud waste, abuse and mismanagement. There must be investigations to determine how the project failed and who at DOE and with the host of contractors is accountable.

Lack of intellectual curiosity about what was going on, lack of critical questioning and acceptance of reports by NNSA and MOX Services without ample review have been part of the project’s demise, a dead-end approach that came to be set in stone. This body, the Nuclear Advisory Council, shirked its responsibility to the citizens and taxpayers in South Carolina by not being a positive force asking probing questions and demanding answers about the project as it fell apart. The failure of the MOX project will ever serve as a reminder to you that blind acceptance of what DOE and contractors say about of mismanaged and misguided nuclear projects could come to ill, as we have seen with the MOX boondoggle and the V.C. Summer fiasco. Will you now exercise caution or again fall into the trap of those advocating for expensive, questionable projects?