



October 27, 2016

Dr. Ernest Moniz  
Secretary, US Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

Via USPS and email to <The.Secretary@hq.doe.gov>

Dear Secretary Moniz:

On behalf of the Oak Ridge Environmental Peace Alliance and Nuclear Watch New Mexico, we hereby petition the Department of Energy and the National Nuclear Security Administration to prepare a new Site-Wide Environmental Impact Statement for the Y-12 National Security Complex in connection with the Amended Record of Decision for the Uranium Processing Facility.

The Amended Record of Decision for the Uranium Processing Facility (UPF) is a significant change from the National Nuclear Security Administration's July 2011 Record of Decision for the Final Site-Wide Environmental Impact Statement for the Y-12 National Security Complex in Oak Ridge, Tennessee. As an agency within the Department of Energy, NNSA is required under the National Environmental Policy Act (NEPA) to prepare a Supplemental Environmental Impact Statement if "there are substantial changes to the proposal or significant new circumstances or information relevant to environmental concerns." (10 CFR § 1021.314(a); 40 CFR § 1502.9(c)).

### **Substantial changes to the proposal**

The current implementation strategy for the UPF is a substantial change to the 2011 Record of Decision (ROD), which stated: "NNSA has decided to select Alternative 4, to continue operation of Y-12, and to construct and operate one new facility—a Capability-sized UPF" (FR Vol. 36, No. 139/Wednesday, July 20, 2011/Notices, p. 43320). In contrast, the NNSA's FY 2017 Congressional Budget Request explicitly states that several new facilities will be constructed. The Amended Record of Decision reflects the recommendations of the April 2014 "Red Team;" the UPF is now a multi-building project to house uranium operations, with plans for construction of multiple new facilities to varying levels of seismic qualification and the continued use of at least two existing facilities, Building 9202-2E and Building 9215.

### **Significant new circumstances relevant to environmental concerns**

The decision to press aging facilities into continuing service for the foreseeable future represents significant new circumstances relevant to environmental and safety concerns. The Y-12 Site-Wide Environmental Impact Statement (Y-12 SWEIS) provided only limited analysis of the continuing use of these facilities in its Upgrade-in-Place/No UPF alternative. It stated: "Although existing production facilities would be modernized, it would not be possible to attain the combined level of safety, security and efficiency made possible by the UPF Alternative." (Y-12 SWEIS, S-12, 13). The Amended Record of Decision affirms that the two facilities will not be retrofitted to meet current environmental and seismic standards, following the language of the Supplement Analysis that stated (p. 30):

With regard to seismic hazards, it would be prohibitively expensive to upgrade 50+ year-old fa-

cilities to current seismic standards. As such, the plan is not to bring the long-range Y-12 Enriched Uranium facilities to current seismic standards, but to improve worker safety and reduce mission risk.

Neither the 2011 SWEIS nor the Supplement Analysis gives any evidence of having taken a hard NEPA look at this. The public has a right to be fully informed of the risks being imposed on us, especially since the NNSA has declined to provide any opportunities for public engagement during the two year Supplement Analysis process that led to the Amended Record of Decision. What are the deficiencies at Buildings 9202-2E and 9215? What would the cost of bringing them up to code be? What are the added risks to the public of pressing them into service for 20-30 more years? If the facilities are not currently expected to be able to survive a design-bases earthquake, what level of seismic activity could they be expected to withstand—at what point will they collapse? What will be the impact of that—on workers, on the public, on the nation's nuclear mission capability?

### **Significant new information relevant to environmental concerns**

1. Since the 2011 ROD was published, significant new information relevant to environmental concerns has become part of the public record. In August 2014 the United States Geological Survey (USGS) published the results of its five-year update to the earthquake hazard maps for the United States. The new maps indicate an increase in the earthquake hazard risk for the East Tennessee Seismic Zone (ETSZ) which includes the Oak Ridge Reservation. The increase in risk indicated on the new hazard maps is among the greatest in the continental United States. Research at the University of Tennessee has also uncovered geologic evidence that historic earthquake activity in East Tennessee exceeds levels previously understood to be the maximum level of earthquake; at least two magnitude 6 earthquakes are now known to have occurred in the ETSZ. The Supplement Analysis dismisses this new information as “not relevant,” and says the UPF will be over-designed anyway. But the new data is relevant—and a full and thoroughgoing study should be conducted to determine the seismic history of the ETSZ. If greater than Magnitude 6 earthquakes are now known to have occurred in the relatively recent past, do we not need to know how much greater than Magnitude 6? As the federal agency responsible for fulfilling the mission-mandate at Y-12, doesn't the DOE want to know?

The particular relevance of the Amended Record of Decision for the Y-12's continuing uranium operations is underscored by the concerns expressed by the Defense Nuclear Facilities Safety Board about the seismic vulnerability of aging facilities at Y-12, as captured in the February 2015 staff review:

Building 9204-2E and the 9215 Complex have known structural performance deficiencies and do not meet modern structural design requirements. These deficiencies result in an increased potential for structural collapse and release of radiological material following certain seismic events. NNSA accepted this risk for near-term mission work with the intent of replacing the capabilities in these facilities with the planned Uranium Processing Facility (UPF). However, following an evaluation of alternative approaches for the UPF project in early 2014, NNSA removed the capabilities of Building 9204-2E and the 9215 Complex from the UPF project scope. (DNFSB correspondence between Vice-chairperson Jesse Roberson and NNSA Production Office Manager Steven Erhart, February 4, 2015)

2. The discovery in February 2014 of a heretofore unknown field of radioactive debris during site preparation activities for the UPF presents new information relevant to environmental concerns and questions raised by the public during the Y-12 SWEIS process. Public concerns were addressed by NNSA with a plan to perform site characterization activities (soil sampling and analysis) which have now been proven inadequate, re-opening the concerns raised by the public.

Subsequent news reports indicate workers involved in site preparation have encountered unexpected contaminated debris on at least fifty occasions; in many instances the contamination was radioactive. This

history should be considered predictive, and the NNSA has a responsibility to take a hard look at the issue of discovered contamination (there will likely be more as construction begins) before proceeding. Failure to do so could lead to significant worker exposure. Short of that, though, NEPA requires a thorough analysis of this question.

These concerns are significant and relevant and go to the heart of the purpose of the National Environmental Policy Act. It is incumbent upon NNSA to re-engage the public to address these elevated concerns.

### **Additional Considerations**

The Y-12 SWEIS was not limited to consideration of the environmental impacts arising from the construction of the UPF; its purpose was to “assess alternatives for the modernization of Y-12” (Y-12 SWEIS, S-3). Incorporated into this analysis for the future Y-12 were significant environmental, security and cost benefits to be derived from the consolidation of operations into one new Uranium Processing Facility. This included reduction of the high security footprint, allowing cleanup of legacy sites currently inside the security fence. Specifically, the Y-12 SWEIS anticipated a 90% reduction of the high security zone (from 150 acres to 15 acres), security staff reductions of up to 60%, and a reduction in the site’s total building footprint of 3.1 million square feet.

Shrinking the Personnel Intrusion and Detection Assessment System (PIDAS) perimeter would have had a significant environmental impact because it would have made possible the decontamination, decommissioning and demolition of dozens of facilities and the remediation of the soils beneath the facilities and surrounding areas. Recent photographs of the conditions at Building 9201-5 indicate the dramatic environmental hazards that exist when structures are allowed to fail.

In 2015, the Inspector General of the Department of Energy released a report examining “Excess High-Risk Facilities” across the nuclear weapons complex. The top three facilities on the list were at Y-12. They present, in the remarkable words of the IG report, “an ever-increasing risk to workers and the public.” The remediation of these facilities is significantly inhibited by the cost of trying to work inside the PIDAS. The 2011 SWEIS did not examine the environmental impacts resulting from the neglect of these facilities as a “Site-Wide” EIS should have. The Amended Record of Decision attempts to skirt this question altogether by carving out only the environmental considerations directly related to the construction of the UPF facilities. This may constitute improper segmentation of a NEPA analysis; at the very least, it requires a re-opening of the 2011 SWEIS to address and analyze the now-clear reality of Y-12 for the foreseeable future, and questions about the risks to workers at the UPF from further degradation at the excess high-risk facilities, including Alpha-5, must be discussed.

Alpha 5 is not the only problematic structure. Building 9201-4, which is reported to contain between 150,000 and 300,000 pounds of mercury, cannot be remediated as long as it remains inside the boundaries of the PIDAS.

The new implementation strategy will block these previously declared environmental benefits from being realized. The current Y-12 SWEIS does not include any analysis of the environmental impacts, hazards or risks of allowing these facilities to continue to deteriorate unabated, which would almost certainly have adverse environmental impacts. A new SEIS is required to consider the site-wide impact of these changed circumstances.

### **NNSA required to prepare a Supplemental Environmental Impact Statement**

Given significant changes from the 2011 ROD’s formally declared path of action, the potential for significantly different and likely adverse environmental impacts, and the availability of new, relevant environmental information, the Department of Energy’s National Nuclear Security Administration may not

excuse itself from the legal requirement to prepare a Supplemental Environmental Impact Statement. The SEIS must include a full analysis of the new “preferred option” for continuing uranium enrichment operations—the new UPF and the continued use of aging facilities which fail to meet current safety standards—and the foreseeable consequences arising from the failure to implement the decision formally recorded in the 2011 ROD and published in the Federal Register.

The NNSA decision to not prepare a SEIS or new SWEIS falls short of the legal requirement in the ways we enumerate above. The Amended Record of Decision, by its self-declared limitation of scope to the UPF, reveals NNSA’s exposure on this matter. The 2011 SWEIS, which included the UPF, does not thoroughly or adequately analyze the Y-12 we now contemplate. It is not enough to say the current plan is a hybrid of previously analyzed alternatives. The new plan for the UPF impacts the rest of Y-12, and the space in which it resides is fundamentally changed. We understand more about the risks and challenges than we did in 2011, and that new environment must be subjected to more thorough scrutiny than that demonstrated in the Supplement Analysis and the Amended Record of Decision.

### **Precedent**

The NNSA faced an analogous situation at the Los Alamos National Laboratory (LANL), where a similar decision to abandon the “big box” approach for the Chemistry and Metallurgical Research Replacement-Nuclear Facility (CMRR-NF) led to the preparation of a Supplemental Environmental Impact Statement (SEIS). As you know, the formally modified CMRR-NF was subsequently cancelled in 2012 because of budget constraints. Regardless, we believe NNSA’s decision at the time to complete a CMRR SEIS was absolutely correct, and provides strong precedent for why NNSA should prepare a Supplemental Y-12 SWEIS as well.

### **The importance of public participation**

The National Environmental Policy Act places a high value on public participation. Since 2013, when the “big box” UPF as described in the 2011 Record of Decision was abandoned, the NNSA’s planning process has assiduously excluded the public. As the Department of Energy contemplated the formation of a Red Team there was no effort to solicit nominations from the public; when the Red Team was formed, it did not conform to the balancing requirements of the Federal Advisory Committees Act; the Red Team held no public hearings or information sessions; it met in secret. The Red Team report, when completed, was not released to the public; OREPA and NWNM were forced to file a Freedom Of Information Act (FOIA) request on April 24, 2014 for the Red Team Report.

When some details of the Red Team report were released and it became clear that the NNSA was pursuing a radically different path forward, OREPA and NWNM joined with other members of the Alliance for Nuclear Accountability to write a letter to then NNSA Administrator Frank Klotz on July 8, 2014. Our letter expressed our view that NNSA was required to prepare a new EIS; we received no reply to our letter. Similarly, OREPA wrote to NEPA officer Jim Sanderson on July 30, 2014 citing concerns about elements of the Red Team plan that required further environmental analysis in a new EIS; we received no reply to our letter.

Finally, after noting a reference to a July 2014 Draft Supplement Analysis in a separate NNSA document, OREPA and NWNM filed a FOIA request for the Supplement Analysis on March 2, 2015, followed by a FOIA request for the Highly Enriched Uranium Implementation Plan.

This chronology demonstrates three things: the persistent efforts of the public to communicate concerns to NNSA (which were met with silence); the complete failure of DOE and NNSA to provide any opportunity for public input during a three-year process; and the failure of DOE and NNSA to provide any information about its planning process to the public without being compelled by FOIA. No draft documents

were provided to the public for comment; no hearings were held.

This was not simply the unfolding of a course of events; it was a consistent and concerted effort by the NNSA to avoid public scrutiny and to exclude the public from the planning process. The entire Red Team process, the development of an HEU Implementation Plan, the revisiting of the 2011 SWEIS, the preparation of the Supplement Analysis and the publication of the Amended Record of Decision were conducted entirely without public involvement of any kind, despite repeated efforts of the public to engage DOE and NNSA. This exclusion of the public, while it may not have run afoul of the letter of NEPA, falls far short of the spirit of the law.

In conclusion, we formally request that NNSA prepare a new Y-12 SWEIS. We look forward to your timely response and request that you respond to this petition by November 27, 2016. If we receive no response by that time we will assume that this petition is being denied and will proceed accordingly.

Thank you in advance for your careful consideration.

Sincerely,



Ralph Hutchison, Coordinator  
Oak Ridge Environmental Peace Alliance



Jay Coghlan, Executive Director  
Nuclear Watch New Mexico

cc: Mr. Frank Klotz, Administrator, National Nuclear Security Administration  
Sen. Lamar Alexander, Chair  
Senate Energy and Water Development Appropriations Subcommittee  
Sen. Dianne Feinstein, Ranking Member  
Senate Energy and Water Development Appropriations Subcommittee  
Ms. Mary Martin, NNSA NEPA Compliance Officer  
Ms. Carol Borgstrum, DOE NEPA Compliance Officer  
Mr. Eric Glitzenstein, Meyer Glitzenstein & Eubanks, LLP

Enclosures:

8 July 2014, Letter from Alliance for Nuclear Accountability to NNSA Administrator Frank Klotz

30 July 2014, Letter from Oak Ridge Environmental Peace Alliance to Jim Sanderson, NNSA NEPA officer

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