



November 21, 2016

The Honorable Dr. Ernest Moniz
U.S. Department of Energy
1000 Independence Ave., S.W.
Washington, D.C. 20585

Re: Waste Isolation Pilot Plant

Dear Secretary Moniz:

This letter is sent on behalf of the Natural Resources Defense Council (“NRDC”) and Southwest Research and Information Center (“SRIC”), two environmental organizations that have decades of involvement in the proposal, planning, design, construction, and operation of the Waste Isolation Pilot Plant (“WIPP”). The purpose of this letter is to advise the Department of Energy (“Department” or “DOE”) of our view of the requirements of the National Environmental Policy Act (“NEPA”) with regard to any proposed reopening of the WIPP. We hope that we can reach a consensus with the Department about the nature of the analyses to be undertaken and, in that hope, set forth our understandings.

As you know, the circumstances of the February 2014 fire and radioactivity release are complex and involve several Department entities and contractors. The WIPP Recovery has also been time-consuming and expensive, and it will apparently take years longer to achieve something approximating the facility’s operational status, for example, the new permanent ventilation system and emplacing waste in uncontaminated rooms, before February 2014. However, the efforts at cleanup in the WIPP Recovery project, the proposal to re-open WIPP, and the requirements for its renewed operation have included no public NEPA process. We believe compliance with NEPA is necessary to bound the significant federal actions associated with the WIPP Recovery project and the efforts to re-open after both a major fire and radiation release that contaminated areas and off-site.

The present situation involves two major federal actions, both calling for NEPA analysis: (a) the operation of WIPP for waste disposal and (b) the WIPP Recovery program. Concerning WIPP’s initial operation, the Department issued the Final WIPP Environmental Impact Statement (“EIS”) in October 1980 (DOE/EIS-0026). The Final Supplement EIS was issued in January 1990 (DOE/EIS-0026-FS). The Final Supplemental Disposal Phase EIS was issued in September 1997 (DOE/EIS-0026-S-2). These dated NEPA documents are now known to be incomplete and, in some cases, erroneous, and they need to be supplemented. Among many other matters bearing upon the environmental impact of the operation of WIPP for disposal, none of those EISs included:

1. Analysis of the impacts of an underground fire that would shut down the facility for months, such as the fire that occurred on February 5, 2014. Previous analysis materially underestimated the probability and the environmental consequences of such a fire.
2. Analysis of the impacts of exothermic chemical reactions (in other words, explosions) in the mine that would release radionuclides and cause contamination throughout significant portions of the WIPP underground, such as occurred on February 14, 2014. Previous analysis materially underestimated the probability and environmental consequences of such an incident. Among the impacts not analyzed was radioactivity being released through leaking ventilation dampers to the atmosphere outside of the WIPP Exclusive Use Area
3. At the very least, NEPA calls for an analysis of the potential impacts of another low-probability, high-consequence occurrence like the February 14, 2014 event. This analysis could not be limited to the scope and impacts actually observed from that event, since it is known that the impact of that event was limited in ways that were not required by the physics of the situation. For example, the source term in the single drum was not consumed. Other drums did not catch fire. The EIS should analyze the potential impacts on the environmental and cultural resources and the socioeconomic conditions present near WIPP of such a catastrophic event. So much is called for by 40 CFR 1502.22 (“When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.”)
4. Analysis of the impacts of hundreds of containers being stored and, possibly, disposed in the underground that are not in compliance with the past or current WIPP Waste Acceptance Criteria (WAC), including the WAC limitations on liquids, ignitable, corrosive, and reactive materials, as is currently occurring at WIPP. Further, there has been no analysis of why the WAC and other institutional controls (e.g., WIPP Hazardous Waste Facility Permit (“HWFP”)) did not prevent the shipment of such wastes to WIPP.
5. Previous NEPA analyses assumed, largely or wholly, that management and contractors of WIPP and, to the relevant extent, of generator sites would enforce compliance with all applicable limitations and requirements. Experience has been to the contrary. A valid NEPA analysis must consider the likelihood and the impacts of failures of such enforcement. Events have shown some such failures and some of the possible impacts of such failures, namely: failures of generator sites and their contractors and WIPP and its contractors to adequately develop and implement repackaging and treatment procedures, as occurred at Los Alamos National Laboratory (“LANL”) on numerous occasions. For example:
 - a. The Department’s Accident Investigation Board (“AIB”) identified the systemic root cause of the February 14, 2014 radiation release as the Los Alamos Field Office (“NALA”) and National Transuranic Program (“TRU”)/Carlsbad Field Office’s (“CBFO”) failure to ensure that LANL had adequately developed and implemented repackaging and treatment procedures that incorporated effective hazard controls and a rigorous and

effective review and approval process. NA-LA and CBFO did not ensure the adequate flow down of the Resource Conservation and Recovery Act (“RCRA”) and other upper tier institutional requirements, including the WIPP HWFP, Attachment C, Waste Analysis Plan, WIPP WAC, and the LANL HWFP requirements into operating procedures at LANL.

b. “Failure of Los Alamos National Security, LLC (“LANS”) to implement effective processes for procedure development, review, and change control. Preparation, amendment, review, approval, and execution of the Waste Characterization, Reduction, and Repackaging Facility (“WCRRF”) glovebox procedure resulted in documentation that authorized a combination of incompatible materials and the generation of an ignitable, noncompliant waste.”

c. Failure of LANS to develop and implement adequate processes for hazard identification and control. As a result, an incompatible absorbent was specified and used during nitrate salt bearing waste processing.

d. Failure of the LANS Contractor Assurance System (“CAS”) to identify weaknesses in the processes for operating procedure development; hazard analysis and control; and review that resulted in an inadequate, noncompliant, and hazardous glovebox operation procedure for processing the nitrate salt bearing waste.

e. Failure of the Central Characterization Program (“CCP”), under management by TRU and CBFO, to develop an Acceptable Knowledge (“AK”) for the mixed inorganic nitrate waste stream (LA-MIN02-V.001) that adequately captured all necessary and available information regarding waste generation and subsequent repackaging activities to prevent the generation, packaging, shipment, and emplacement of corrosive, ignitable, or reactive waste. Specifically, the AK Summary Report did not capture changes made to the WCRRF glovebox procedure. The addition of a secondary waste material was not adequately considered.

f. Failure of NA-LA and the TRU/CBFO to ensure that the CCP and LANS complied with RCRA requirements in the WIPP HWFP and the LANL HWFP, as well as the WIPP WAC. Examples include the unapproved treatment (neutralization and absorption of liquids) and the addition of incompatible materials. As a result, waste containing incompatible materials was generated and sent to WIPP.

g. Failure of LANS, Energy *Solutions*, LLC (ES), and the NA-LA to ensure that a strong safety culture existed within the Environmental and Waste Management Operations organization at LANL. “As a result, although there was a questioning attitude, there was a failure to adequately resolve employee concerns which could have identified the generation of noncompliant waste prior to shipment.

h. Failure of the execution of the LANL Unreviewed Safety Question (“USQ”) process to identify the lack of a hazard analysis of the proposed changes to the WCRRF glovebox waste repackaging procedure (i.e., consistent with Integrated Safety Management core functions), and to recognize that an incompatible reactive nitrate salt bearing waste would be created by using “organic” absorbents. As a result, the USQ determination did not ensure that nuclear safety basis documents, including the WCRRF and Area G Basis for Interim Operation, were updated to

evaluate hazards associated with material incompatibility in the nitrate salt-bearing waste stream and to specify preventive or mitigative controls.

i. Failure of NA-LA to establish and implement adequate line management oversight programs and processes in accordance with DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*. As a result, weaknesses in LANS/ES programs and waste operations procedures were not identified and corrected, thus allowing an ignitable, noncompliant nitrate salt-bearing waste to be generated, shipped, and emplaced at WIPP.

j. Failure of DOE Headquarters to perform adequate or effective line management oversight required by DOE Order 435.1, *Radioactive Waste Management*, dated July 9, 1999. As a result, waste containing incompatible materials was generated and sent to WIPP.

k. Failure of Nuclear Waste Partnership LLC (“NWP”) to ensure that the WIPP Fire Hazard Analysis recognized the potential for a fire starting within the waste array as well as the potential for propagation within the array. As a result, fire protection controls focused on prevention of propagation to the array from external sources (e.g., vehicles) and did not consider the magnitude of the combustible material hazard.

l. Failure of LANS/ES to adequately train and qualify ES operators and supervisors in the identification and control of incompatible materials during waste processing. As a result, ES personnel did not question the instruction to add organic absorbent and other secondary waste items to the nitrate salt bearing waste.

m. Failure of ES operators and LANS/ES supervisors to effectively execute the stop work process when unexpected conditions, including foaming reactions and smoke during waste processing, were encountered at WCRRF. This resulted in waste containing incompatible materials being generated and sent to WIPP.

6. Under NEPA, where an agency proceeds with a major federal action based upon a mistake of fact, it acts arbitrarily and capriciously. *NRDC v. U.S. Forest Service*, 421 F.3d 797 (9th Cir. 2005). Reliance on a misinterpretation that is material to the federal action is a clear error of judgment under the arbitrary and capricious standard. (at 806). NEPA requires that the EIS contain complete and accurate information. (at 813). Inaccurate information can mean that the EIS did not provide the correct range of alternatives. (at 814). In *Wildlands v. U.S. Forest Service*, 791 F. Supp. 2d 979 (D. Ore. 2011), the court held that, where “the errors subvert NEPA’s purpose of providing decision makers and the public with an accurate assessment upon which to evaluate the proposed project” (at 990), the agency must prepare a supplemental EA or EIS before proceeding. (at 985, 990, 992). Further: “Central decisions affecting the analysis and approval of the Trapper Timber Sale were based on a factual inaccuracy and the public has yet to be informed of the actual findings . . . so it can engage in meaningful input.” (at 991).
7. The second major federal action calling for NEPA analysis is the WIPP Recovery program, which is a term that describes several coordinated and interrelated actions, under Departmental management, which have the common purpose of restoring WIPP to operational status for waste disposal. The WIPP Recovery has as its central purpose to

change the environmental impact of WIPP operation. However, such impacts have not been analyzed, as NEPA requires.

8. NEPA analysis is required of remedial actions, including Corrective Action Plans, intended to preclude future fire and radiation release events at WIPP and changes in the characterization, packaging, and treatment processes at the generator sites. *People Against Nuclear Energy v. NRC*, 678 F.2d 222 (D.C.Cir. 1982), *rev'd on other grounds, Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983). The case of an accident followed by remedial measures and renewed operation necessarily presents a situation of new information about environmental impacts, calling for a supplemental EIS. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989). Also required is analysis of the impacts of greatly changed operations of the facility, including major changes in the ventilation systems, as is being proposed. The Department has published a Recovery Plan (September 30, 2014). The plan includes, inter alia, the resumption of ground control activities, including rockbolting, initial closure of Panel 6 and Panel 7 Room 7, decontamination of the underground, and several readiness reviews. The Department also plans to replace the WIPP ventilation system with an Interim Ventilation System and Supplemental Ventilation System and to install a new permanent ventilation system that will include an additional exhaust shaft and drifts. The Recovery Plan states that WIPP will operate with contaminated and uncontaminated sections of the underground—a major departure from previous principles. DOE now intends to not follow the Recovery Plan and not install the Supplemental Ventilation System before re-opening. In any case, such operation calls for analysis of the impacts on operations and on workers in the underground doing waste handling and maintenance in a contaminated area that requires Personal Protective Equipment, including self-breathing apparatus.
9. These changes are all centrally managed and require high-level review and approval before operations may resume: The Department has stated that “[t]hese [upgrades] will be validated in accordance with Departmental directives through the conduct of Operational Readiness Reviews [“ORRs”] at the contractor and federal levels.” (at iii). Further, a new Documented Safety Analysis (“DSA”) must be implemented. (at 13). The Recovery Plan emphasizes that the DSA and ORRs must be completed before operations resume:

The implementation of a revised Documented Safety Analysis and implementation of new and enhanced Safety Management Programs will be independently verified by an Independent Verification Review and confirmed through Operational Readiness Reviews by both the contractor and the Department, a key element to resumption of operations. These reviews will be completed prior to resumption of waste emplacement operations and again prior to the commissioning of the permanent ventilation system and the associated operations it will support. (at 15)

10. DOE Order 425.1.C, concerning Readiness Reviews, states that completion of such a review is required for the start or restart of a nuclear facility:

The requirements specify a readiness review process that must, in all cases, demonstrate that it is safe to start (or restart) the applicable facility. The facility must be started (or restarted) only after documented independent reviews of

readiness have been conducted and the approvals specified in this Order have been received.

11. The Recovery Plan also observes that DOE may need to make submissions to EPA, modifying its recertification application, concerning changes in the facility or its operation that may affect its long-term performance: “Any recovery activities that affect long-term performance of the WIPP repository will be coordinated with the EPA and be factored into their ongoing review of the WIPP Recertification Application, a five year review that must be completed by March 2015 in order for WIPP to operate.” (at 16) It seems clear that, *e.g.*, installation of an additional shaft, linking the WIPP underground with the surface, would bear upon the long-term performance of the site and needs to be submitted to and approved by EPA.
12. NEPA requires the Department to conduct an environmental analysis in connection with the several actions that law and regulations require before the resumption of operations at WIPP, including the implementation of corrective action plans, the issuance of approvals based upon readiness reviews, and the obtaining of new authority to operate under modifications. Agency action to continue the operation of a facility without altering the status quo does not generally require NEPA examination, but when the action in issue involves material modifications in the scope or manner of operation of a facility, NEPA review applies. *People Against Nuclear Energy v. U.S. NRC*, 678 F.2d 222 (D.C. Cir. 1982), *rev'd on other grounds*, 460 U.S. 766 (1983). The issuance of a permit is typically the occasion for NEPA review. See, *e.g.*, *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d 581646 (9th Cir. 2014); *compare: Grand Canyon Trust v. Williams*, 2015 U.S. Dist. LEXIS 45325 (D. Ariz. 2015).
13. NEPA requires, upon the disclosure of new information about environmental impacts, such as the fire and radiation release, the Department must at least take a hard look at the new information in considering whether to issue a SEIS. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989).
14. NEPA analysis requires the identification and analysis of alternatives to the proposed action. The February 2014 incidents have revealed, upon examination, failures of management, oversight and compliance with regulatory requirements at numerous points in the WIPP program and in the Department generally. Further, the impacts of these incidents upon the WIPP facility are multiple, costly, and, in some instances, may be permanent. Human injuries in these instances may be minor—to all initial appearances—but in another incident they might be much more significant. Clearly, the development of a coherent and effective path forward from these incidents requires examination of alternatives at several levels. NEPA requires no less. There is no indication that the Department has undertaken the analysis of alternatives that is called for here.
15. For example, the Department plans to operate WIPP as a partially contaminated facility, with workers operating with Personal Protective Equipment in some parts of the site, including for waste emplacement. In such configuration, ventilation exhaust must be filtered, at least from part of the facility. We see no analysis of the risks, radioactive and otherwise, to workers or the public of such a decision and of alternatives, such as a cleanup or abandonment and closure of all contaminated parts, together with the possible

excavation of additional disposal areas in locations that would not be contaminated. Another alternative, of course, is the closure of WIPP with its present waste inventory. An analysis must necessarily examine questions like the projected disposal capacity and cost of operating WIPP, operated with partial contamination, compared to WIPP operated in clean configuration. In addition, the way in which the incorrectly packaged waste drums, some still at LANL and some now at Waste Control Specialists in Texas, are managed presents obvious alternatives that should be analyzed. NEPA requires such analysis.

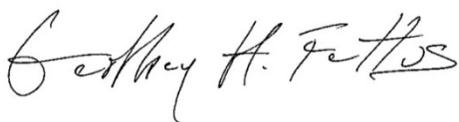
16. Other alternatives include new packaging methods so that drum combustion is minimized or prevented. Such methods might restrict containers larger than 55-gallon drums, or might prohibit RH waste in shielded containers so that they would not be exposed to combustion, or might incorporate fire barriers so that combustion could not spread. NEPA requires an analysis of several basic alternatives that illustrate the costs and advantages for the decisionmaker.
17. There are certain management alternatives that might be examined for their environmental impacts. For instance, the provision of incentives for waste glovebox operators who achieve fault-free performance may reduce adverse consequences.
18. NEPA requires that the Department not predetermine the decision to re-open WIPP without first conducting required environmental analysis. Predetermination is found when the agency has committed itself to a course of action that is dependent upon the outcome of an environmental analysis, before it has completed such analysis. *Forest Guardians v. U.S. Fish & Wildlife Service*, 611 F.3d 692, 714 (10th Cir. 2010). The remedy for predetermination is to start a fresh new NEPA process. (611 F.3d at 710).
19. The Department has disclosed little about its plans to undertake NEPA analysis of the various actions planned in connection with the recovery of WIPP. Indeed, it appears that the Department has planned, committed to, and has commenced various actions that comprise elements of a major federal action—WIPP recovery and a planned reopening of the facility—without undertaking the identification of alternatives at WIPP, generator sites, and in the TRU waste program and comparison of impacts that NEPA calls for.
20. We note with disappointment that the Department has invoked a categorical exclusion (titled “facility safety and environmental improvements”) for an element of the Recovery Plan, *viz*: upgrades to the underground ventilation system (November 2014). Probably every individual part of the Recovery Plan can be labeled a facility safety and environmental improvement, yet the approach under which the plan can be segmented and each such part can be excluded from NEPA review was long ago disallowed. 40 CFR 1502.4(a). “A project has been improperly segmented, on the other hand, if the segmented project has no independent utility, no life of its own, or is simply illogical when viewed in isolation.” *Hudson River Sloop Clearwater, Inc. v. Dep't of Navy*, [836 F.2d 760, 763-64 \(2d Cir. 1988\)](#); *Westbury v. Dept of Transp.*, [75 N.Y.2d 62, 69, 549 N.E.2d 1175, 550 N.Y.S.2d 604 \(1989\)](#).” *Stewart Park & Reserve Coalition, Inc. v. Slater*, [352 F.3d 545, 559 \(2d Cir. 2003\)](#).

21. The presence of hydraulic fracturing or “fracking” near the WIPP site is a new activity, the effects of which on current and long-term operations of the facility have not been analyzed in the WIPP EISs.
22. We look forward to discussion of approaches that would satisfy the congressionally-directed requirements of NEPA, including scoping options. Our interest is a matter of long public record. NRDC is a national environmental organization which has observed and analyzed the planning, construction and operation of WIPP for more than 30 years. NRDC has an active component that oversees and addresses the risks presented by DOE nuclear facilities. NRDC has commented on and litigated about the risks presented by DOE nuclear facilities, and specifically WIPP. Members of NRDC reside in every state where WIPP transportation corridors run and in New Mexico, where WIPP disposal takes place. NRDC members are also exposed to risks of accidental releases from WIPP both during the disposal phase and after closure. SRIC is a New Mexico-based community organization which has observed and analyzed the planning, construction and operation of WIPP for more than 40 years, has commented publicly on every stage, and has engaged in litigation about the risks presented by WIPP. SRIC has board members and contributors throughout the State, including persons residing near the WIPP disposal site itself and along transportation corridors within and without New Mexico. SRIC board members and contributors are exposed to risks of accidental releases from WIPP both during the disposal phase and after closure.

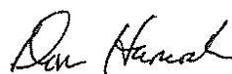
We would be pleased to discuss our concerns with you and your staff. Given current plans to re-open WIPP in the next several weeks, we believe that such discussions should occur in the near future.

Thank you for your careful consideration of, and response to, these matters.

Sincerely,



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