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6 May 1996

The Honorable Hazel O'Leary
United States Department of Energy
1000 Independence Avenue SW
Washington, DC 20085

Dear Secretary O'Leary:

In February of 1996, the Department of Energy (DOE) released the Draft Programmatic Environmental Impact Statement (PEIS) on the Storage and Disposition of Weapons -Usable Fissile Materials. We are gravely concerned that the document itself, as well as several aspects of DOE's approach to disposing of weapons-usable fissile materials, is substantially flawed. We have outlined our primary concerns below, and request that DOE provide another opportunity for public comment after these concerns are addressed in a revised Draft PEIS. 1/08.03.01

Disposing of surplus plutonium and highly-enriched uranium is one of the most urgent and significant international security matters of our time. The National Environmental Policy Act (NEPA) dictates that DOE present a credible and accurate discussion of reasonable alternatives in its review of this issue. Further, the potential consequences of an inappropriate decision compel DOE to demonstrate better than its normal quality of NEPA performance - ensuring particularly that the nonproliferation and cumulative impacts of its decision are soundly addressed. The current Draft PEIS meets neither of these standards. 2/01.00.00

The most glaring lapse is the continuing confusion between the objectives of fissile materials disposition and nuclear industry subsidization. For environmental, nonproliferation, economic, and other policy reasons, the proposed use of mixed oxide (MOX) fuel as a means of plutonium disposition should be flatly rejected as unreasonable. In the presence of other means to safely dispose of excess plutonium, there is no sound reason whatsoever for giving as much credence to a MOX alternative(s) as DOE does in the Draft PEIS. 3/01.02.00 4/08.03.01

The only apparent reason for continuing to emphasize the use of MOX fuel is pressure from people who stand to gain economically and/or politically from its selection. The Draft PEIS is woefully inadequate in its consideration of the nonproliferation and cumulative impacts of this alternative. A more thorough analysis of MOX use would raise significant concerns about, for example, its link to future reprocessing and long -term US policy regarding reliance on a plutonium fuel cycle. Any analysis of MOX fuel for plutonium disposition which does not thoroughly and explicitly evaluate such related matters is insufficient and should not be the basis for decisions. 5/06.01.08

In addition to these far reaching policy concerns, the Draft PEIS fails to adequately discuss safety issues associated with the use of MOX fuel. The Draft PEIS, for instance, does not adequately consider the high thermal power of MOX spent fuel and the related implications for the cost and safety of a high-level waste repository. This issue was raised by the National Academy of Sciences in its 1995 reactor options study for 6/09.09.08

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08 03 01 Comment Number 1

As noted in presentations at the public meetings, DOE welcomes public input throughout the decisionmaking process, which includes the formal NEPA comment periods, scoping, and reviewing the Draft PEIS, as well as during the period of time after issuance of the Final PEIS leading up to the ROD. DOE believes that the Draft PEIS was adequate for the purposes of soliciting public comments, and does not intend to issue another draft.

01 00 00 Comment Number 2

The Final PEIS has been revised to reflect comments received, including revisions to cumulative impacts in Section 4.7. Analyses of nonproliferation impacts are presented in a separate document, *Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Plutonium Disposition Alternatives,* and will be considered in DOE's ROD. This document was available for public review in October 1996 and public meetings were held in October and November 1996 on this nonproliferation study.

01 02 00 Comment Number 3

The Department of Energy is complying with NEPA by analyzing a range of reasonable alternatives for implementation of the Proposed Action. Accomplishing nonproliferation and meeting the intent of the Spent Fuel Standard is not a subsidization of the nuclear industry. This can be achieved through any of three disposition categories; Reactors, Immobilization, or Deep Borehole.

08 03 01 Comment Number 4

The Department of Energy acknowledges the commentor's opposition to the Reactor Alternative using MOX fuel. Decisions on disposition of weapons-usable fissile materials will be made based upon environmental analyses, technical and economic studies, national policy considerations, and public input. The NAS considered the use of the Reactor Alternatives using MOX fuel as a disposition option. This was further considered and confirmed in the Screening Report. Therefore, the Reactor Alternatives using MOX fuel are reasonable alternatives under NEPA, and accordingly the PEIS provided a complete analysis of the reactor alternatives.

plutonium disposition. The Draft PEIS also inadequately addresses the potentially greater consequences of an accident in a reactor loaded with MOX fuel. 6/09.09.08 cont.

The consideration of MOX fuel is not the only deficiency in the Draft PEIS. The document fails to consider all reasonable alternatives for the long-term storage of weapons-usable fissile materials, particularly plutonium pits. The Pantex Site-Wide Environmental Impact Statement acknowledges that interim storage of pits at Department of Defense (DOD) facilities, specifically at Kirtland Air Force Base's Manzano Weapons Storage Area, is a reasonable alternative. Accordingly, the DOD is a cooperating agency in that Pantex EIS. The Draft PEIS rejects this alternative for long-term storage without adequate explanation. Among the potential advantages of using an existing facility which should be better evaluated in the PEIS are cost savings from avoiding new construction and faster implementation. 7/01.05.00

Further, the Draft PEIS fails to consider alternatives for plutonium storage containers. Only one container is analyzed despite the fact that this container is not yet certified and is admittedly not appropriate for storage of plutonium in all the variety of forms in which it currently resides throughout the complex. A range of adequate containers and storage conditions should be examined in order to ensure that plutonium stabilization and storage can be done safely. 8/02.00.08

The Draft PEIS should also more fully consider activities associated with the processing and interim storage of plutonium and highly enriched uranium that will be required to transition this material from its current status at various sites around the complex to the preferred form(s) for long-term storage. The draft PEIS seems to presume that such processing and repackaging receives comprehensive NEPA coverage in some other document(s). That is not the case. Instead, existing NEPA documents considering interim stabilization and storage are incomplete. All related issues have not been addressed separately and certainly not comprehensively. Moreover, there are numerous outstanding safety concerns (e.g., seismic safety at the Savannah River Site reprocessing canyons) which raise questions about the adequacy of those NEPA documents which have been completed. 9/11.01.08

Finally, the Draft PEIS contains no cost estimates and no detailed design information on buildings and facilities. Such information is necessary to identify reasonable alternatives and evaluate their environmental impacts. But that information will not be available to the public until some time after the comment period. Such information is essential to the public discussion and should be made available for public review and comment. 10/08.00.00

These concerns make clear that the Department has much work to do before it can produce an adequate Draft PEIS on the storage and disposition of weapons-usable fissile materials. The public should expect no less that a fully sufficient NEPA analysis for this very important issue.

In conclusion, we want to emphasize that completing an adequate Draft PEIS should not be an excuse for failure to take appropriate action in several areas of disposition policy. Construction of a pilot vitrification plant to demonstrate the safe stabilization of plutonium residues, for example, would not foreclose any options considered in the PEIS. Moving forward with a pilot vitrification plant will instead signal the Department's resolve to safeguard plutonium rather than to stockpile it, as well as to address some existing environmental, health, and safety issues. Moving forward will also provide additional information about the details of immobilization of plutonium in glass - information that would be useful in preparing an adequate PEIS. 11/15.00.00

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06 01 08 **Comment Number 5**

Comment noted. The President's Nonproliferation Policy says that the United States will not recycle Pu. Burning weapons Pu in reactors does not utilize the recycling process because the Pu in the spent fuel from this process will not be extracted for reuse in new fuel. This is consistent with U.S. policy since no Pu is being recycled. After a once-through cycle, the Pu would be converted to a nonproliferation form as spent reactor fuel. This would not be a subsidization of the nuclear industry. As noted in response to Comment Number 2, DOE has prepared both cost and nonproliferation analyses for public review; in the ROD, DOE will consider the cost and nonproliferation information along with environmental analyses, schedule and technical analyses, and public comments.

09 09 08 **Comment Number 6**

The human health and safety impacts from normal operations and facility accidents for all three Reactor Alternatives, existing LWRs, partially completed LWRs, and evolutionary LWRs using MOX fuel are evaluated and documented in the Final PEIS. Appendix H, *High-Level Waste Forms Comparative Analysis*, provides an analysis of the thermal and radiation conditions of the waste form's performance in the repository.

01 05 00 **Comment Number 7**

Combined storage of pits and non-pit Pu at the Manzano WSA was originally eliminated as a reasonable alternative in the Draft PEIS. After considering separate storage of pits from non-pit Pu, the option to store these pits at the Manzano WSA no longer appears unreasonable. The Manzano WSA was evaluated in the Pantex EIS and Section 2.1.3 of the Final PEIS. The Final PEIS was revised to clarify the consideration of the Manzano WSA for combined storage, and a description of the WSA was included in Appendix P.

02 00 08 **Comment Number 8**

The PEIS assumes that all surplus Pu at Hanford, INEL, Pantex, SRS, RFETS, and LANL has been transformed to a stable form that meets the DOE *Standard Criteria for Safe Storage of Pu Metals, and Oxides* (DOE-STD-

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If you have questions or would like to further discuss our concerns, please contact either Ralph Hutchison at (423) 483-8202 or Brian Costner at (803) 256-7298. We appreciate your attention to our concerns and look forward to hearing from you soon.

Sincerely,

Ralph Hutchison

Ralph Hutchison, on behalf of:

American Friends Service Committee, Denver, CO
Citizen Alert, Las Vegas, NV
Concerned Citizens for Nuclear Safety, Santa Fe, NM
Economists Allied for Arms Reduction, New York, NY
Energy Research Foundation, Columbia, SC
Enviornmental Defense Institute, Troy, ID
Institute for Energy and Environmental Research, Takoma Park, MD
Nashville Peace Action, Nashville, TN
Native Americans for a Clean Environment, Tahlequah, OK
Oak Ridge Environmental Peace Alliance, Oak Ridge, TN
Panhandle Area Neighbors and Landowners, Panhandle, TX
Peace Farm, Amarillo, TX
Physicians for Social Responsibility, Washington, DC
Rocky Mountain Peace Center, Boulder, CO
Serious Texans Against Nuclear Dumping, Amarillo, TX
Snake River Alliance, Pocatello, ID
Southwest Research and Information Center, Albuquerque, NM
Tri-Valley CAREs, Livermore, CA
Western States Legal Foundation, Oakland, CA

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3013-94) for materials greater than 50-percent Pu or the *Criteria for Interim Safe Storage of Pu-Bearing Solid Materials* (draft in preparation by DOE) for material with less than 50-percent Pu. Stabilization of the material and the impacts are not within the scope of this PEIS, but have or will be analyzed in other NEPA documents, as appropriate. The material would be stored in containers consistent with the transportation of the materials on or to the site. Containers analyzed for storage of pits include the FL container (currently certified) and the AT-400A (currently under review for certification). Material would not be moved and stored in the AT-400A container without proper certification. Other containers were analyzed for the transportation of other Pu materials (for example, the BUSS R-1 cask for cesium (Cs) and the MO-1 for MOX fuel). Appendix G, "Intersite Transportation," provides the analysis of the containers used for transportation and storage for Pu and HEU.

11 01 08 Comment Number 9

The Department of Energy has an ongoing materials stabilization program under the Office of Environmental Management (EM), to stabilize, process, and package various materials including weapons-usable fissile materials. The NEPA coverage for stabilization of the weapons-usable fissile materials is beyond the scope of this PEIS. Appropriate NEPA documents have or will be prepared, as necessary, for the stabilization of various materials, including weapons-usable fissile materials, under DOE's Materials Stabilization Program. This PEIS analysis begins at the point that the surplus weapons-usable fissile materials are in a form suitable for storage or disposition.

08 00 00 Comment Number 10

In the interest of openness and more informed decisionmaking, DOE released Technical Summary Reports to the public as soon as they became available. Cost data, along with technical and schedule data, were provided in Technical Summary Reports of both storage and disposition in late July 1996. Final Summary Reports reflecting public input were made available to the public in October and November 1996. Results of the nonproliferation analysis were made available in October 1996. Each of these analyses, along with the environmental analysis and public input, will be integrated into the DOE's decisionmaking process.

15 00 00 **Comment Number 11**

Comment noted. DOE will include pilot and demonstration projects, as appropriate, in moving toward implementation of the disposition technologies.