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U.S. Department of Energy
Office of Fissile Materials Disposition
P.O. Box 23786
Washington, D.C. 20026-3786

re: Storage & Disposition of Weapons-Usable Fissile Materials DPEIS

Gentlemen:

As a retired Systems Engineer and having worked in the water and waste treatment industry, 20 years at the INEL CPP plant, taught chemical engineering, and developed a Process Technology program at EITC, my judgement of the DPEIS document is that it does not consider the real final solution to the destruction of weapons-usable fissile materials. The only probable answer to this problem that I have seen is the IFR (Integral Fast Reactor) developed at ANL because it is the only option I know of for providing a closed-loop system to destroy Pu and other actinides by recycling them back to a fast reactor, using an electrometallurgical process to separate fissile materials from fission products. The recycled fissile materials are so radioactive and the Pu so impure as to be non-proliferable. The by-product stream contains a lower volume of radioactive fission products and other materials than the original fuel elements, with a lower heat load for final disposition. The side advantage of providing additional power, using a passively safe reactor that can't undergo devastating environmental consequences of Chernobyl or TMI are powerful reasons to consider the IFR for this and for the even more extensive Pu/SNF problem coming up in the near future. 1/14.00.00

To merely convert this fissile material into a form for burial either as glass or ceramic logs or as SNF from a LWR does not render it permanently free from proliferation at some future date. The President's Non-Proliferation Policy is inconsistent in stopping all Pu processing in the U.S. while supporting it in western Europe and Japan; also in seeking to eliminate accumulation of HEU and Pu, yet stopping further development of newer, safer nuclear power reactors such as the IFR, which would reduce HEU and Pu inventories. The IFR appears to me to be the only currently valid way to meet the President's Non-Proliferation Policy. Yet I find no mention of the rest of the 37 alternatives for Pu disposition referred to on p. S-6 of the Summary document, nor in Vol.I, as referred to in its Foreward. Western Europe, Russia and Japan have given no indication of backing down from their use of Pu or the PUREX method of reprocessing, which produce Pu for nuclear weapons. 1/14.00.00 cont.

Thus, I place little credence in this Draft PEIS for solving the real problem of destroying Pu, let alone maximizing power generated from this resource and enviromental protection from the by-products. To not do so is immoral, illogical, and is a symptom of the worst of our throw-away culture; total systems thinking is required for the best interests of the U.S. and the world.

For what could possibly be used from this DPEIS as a reasonable alternative, I consider the ANL Electrometallurgical Alternative as being the most cost effective of any alternative, since it requires the least area, equipment, personnel of any; it showed up as best in the comparative tables on most items. The equipment and information might be usable if the U.S. wakes up to its real responsibilities; let science & engineering make the decisions. 2/08.03.01

Respectfully submitted:

Lowell A. Jobe

M-186

14 00 00 Comment Number 1

During the screening of alternatives for inclusion in the PEIS, a Reactor-Burning concept was evaluated involving a variation of the Integral Fast Reactor concept. However, this concept, which would use a reactor fuel cycle design still under development, would be more costly and less timely than other mature reactor options. The development program was recently terminated by the Administration and Congressional action. Since Pu disposition can be accomplished using existing technologies, there is no justification for developing this advanced technology for Pu disposition.

08 03 01 Comment Number 2

The Department of Energy acknowledges the commentor's support for the Electrometallurgical Treatment Alternative. Decisions on disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, existing agreements, and public input.