October 24, 2003

Carol Borgstrom, Director
Office of NEPA Policy and Compliance (EH-42)
U.S. Department of Energy
1000 Indiana Avenue N.W.
Washington, D.C. 20585-0119

SUBJECT: *Need for Draft Supplemental SPDEIS on Plutonium Disposition*

Dear Ms. Borgstrom,

On behalf of Blue Ridge Environmental Defense League ("BREDL") and Greenpeace International, I am writing to request that the U.S. Department of Energy ("DOE") prepare and circulate for public comment a draft Supplement to the Surplus Plutonium Disposition Final Environmental Impact Statement, DOE/EIS-0283 ("SPDEIS"), in order to address new information and changed circumstances that have arisen since DOE published the SPDEIS in 1999.

As discussed below, new information has emerged which demonstrates the heightened vulnerability to accidents and containment rupture of ice condenser reactors, which are analyzed in the SPDEIS for plutonium-based mixed oxide ("MOX") fuel use. Moreover, circumstances have changed significantly since 1999, such that DOE now plans to ship plutonium oxide to France for fabrication into lead test assemblies ("LTAs") rather than producing them in the United States. We believe that the new information and changed circumstances meet the Supreme Court's test for re-publication, for public comment, of the DOE's Surplus Plutonium Disposition Final Environmental Impact Statement, DOE/EIS-0283 (1999). *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 373 (1989) (agencies are required to supplement an EIS where there "are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.")

BREDL has intervened in the U.S. Nuclear Regulatory Commission's ("NRC's") adjudicatory proceeding regarding Duke Energy Corporation's ("Duke's") LTA license amendment application, in order to ensure that these environmental issues are adequately addressed by the NRC and/or DOE. A copy of our Supplemental Petition to Intervene (October 21, 2003) is attached. Because our concerns directly impact decisions about supplements to the SPDEIS that you may be considering now, we are forwarding them to you. We hope that by sharing our concerns with you at this early juncture, we can resolve them without resort to litigation.

In summary, the new information and changed circumstances that concern us consist of the following:

1. Two unique features of ice condenser plants, which have come to light since publication of the SPDEIS, show them to be more vulnerable to accidents and containment rupture than other plant designs:

a. A recent NRC-sponsored study shows that in the event of an accident involving hydrogen ignition, the containments of ice condenser plants like Catawba and McGuire will fail with near certainty. NUREG/CR-6427, Assessment of the DCH [Direct Containment Heating] Issue for Plants With Ice Condenser Containments (April 2000). Of the hundred-plus operating nuclear power plants in the United States, there are only a handful for which that statement can be made. Moreover, measures to increase protection against hydrogen ignition, proposed by the NRC Staff in GSI-189, have not been implemented. Given that the radiological consequences of an accident involving MOX fuel will be higher than accidents involving only low-enriched uranium ("LEU") fuel, it would be foolhardy to use MOX fuel in plants with such vulnerable containments. Yet, this issue has not been addressed in the SPDEIS.

b. New information also shows that ice condenser plants are particularly vulnerable to containment sump clogging, because ice condenser plants need to go to sump recirculation in small break LOCAs, which is seldom the case for most other pressurized-water reactors. *See* Arthur Buslik, "Risk Considerations Associated with GSI-191, "Assessment of Debris Accumulation on PWR Sump Performance," Attachment 2 to Memorandum from Michael E. Mayfield to John T. Larkins, "RES's Proposed Recommendation for Resolution of GSI-191" at 6 (August 29, 2001). Again, this issue has not been addressed in the SPDEIS.

Taken together, consideration of these vulnerabilities could have a significant impact on the outcome of the SPDEIS, by demonstrating that the risk of using MOX fuel in ice condenser plants is unacceptable. Therefore, the risk analysis in the SPDEIS should be re-evaluated. The revised SPDEIS should also examine whether radiological impacts of accidents could be avoided or mitigated by using MOX fuel in plants with alternative designs.

2. Circumstances have changed significantly since publication of the SPDEIS, in that fabrication of test fuel assemblies is now planned to take place in France rather than the United States. On October 1, 2003, the DOE filed an export license application with the NRC to ship 140 kilograms of plutonium oxide to France for processing, and then ship the LTAs back to the U.S. According to Duke Energy Corporation's February 27, 2003, license amendment for testing of MOX fuel at the Catawba nuclear power plant, the DOE plans to address the environmental impacts of these overseas shipments in a supplement to the SPDEIS. We support the DOE's plan, but wish to make clear our expectation that this significant change to the DOE's plans for fabrication of MOX fuel requires that the supplement be published in draft form and circulated for public comment.

Please inform me of your plans to consider these new developments in further revisions to the SPDEIS. In addition, with respect to these topics and any other topics, please inform me of any supplements that the DOE issues to the SPDEIS, and any decisions that it makes not to supplement the SPDEIS.

Please call me if you have any questions about this letter.

Sincerely,

/s/
Diane Curran

cc w/o enclosures: Janet and Louis Zeller, BREDL
Tom Clements, Greenpeace International
Dr. Edwin S. Lyman, Union of Concerned Scientists