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WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM

January 26, 2006

**Re: Reprocessing Irradiated Commercial Nuclear Fuel is Expensive and a Proliferation Risk**

Dear Member of Congress:

Representing arms control, consumer, environmental, and public health organizations, we are writing to express our deep concern that the United States is moving toward reviving domestic reprocessing of commercial irradiated nuclear fuel. Recent press reports indicate that a new international reprocessing initiative, called the Global Nuclear Energy Partnership, will be announced in February. While this initiative is being couched as a “non-proliferation” program and a radioactive waste “recycling” program, reprocessing will perilously undermine U.S. nonproliferation efforts and will only exacerbate our nuclear waste problems.

***Reprocessing poses a serious risk to the global non-proliferation regime.*** Over \$100 billion has been spent globally in an attempt to commercialize plutonium, resulting in 250 metric tons of separated plutonium that remains vulnerable to theft—equivalent to more than 30,000 nuclear bombs. In addition to its proliferation risks, the reprocessing technology and plutonium fuel that France currently uses will not significantly reduce the radioactivity of the waste, and thereby will not ultimately solve the waste dilemma. Meanwhile, the much touted technologies for “proliferation-resistant” reprocessing, as well as for transmutation, are not yet in sight and remain decades away, at best, from commercialization. Significantly, the “proliferation-resistant” reprocessing technologies currently being researched by U.S. Department of Energy (DOE) are not sufficient to prevent theft by terrorists, while the plutonium mix that results from these technologies could be used to make a nuclear weapon.

A push for reprocessing would also further undermine global efforts, including proposals from President Bush and International Atomic Energy Agency Director Mohamed ElBaradei, to restrict the spread of uranium enrichment and plutonium separation technologies which can be used to produce nuclear bomb material. Such a proposal would promote an ineffective "Do as we say not as we do" approach, undermining US credibility on non-proliferation. It would also reverse thirty years of non-US reprocessing practice that helped keep many countries including South Korea and Taiwan from reprocessing. Finally, a US or international reprocessing

partnership relies on the assumption that states that wish to acquire bomb-grade material will be willing to forgo acquiring plutonium separating technology.

***Reprocessing is extremely expensive.*** According to a 1996 report by the National Academy of Sciences, costs of reprocessing and transmutation of irradiated fuel that has already been discharged by existing U.S. reactors “easily could be more than \$100 billion” (1996 dollars).<sup>1</sup> Additional waste from license extensions and any new reactors will add to the total bill, which will fall to the federal government given that the U.S. nuclear industry has no interest in paying for domestic reprocessing. Since FY 2001, more than \$416 million have been appropriated to the DOE for reprocessing research and development, a mere drop in the bucket when considering the total cost of developing reprocessing technology. In addition, the FY 2006 Energy and Water Appropriations conference report included \$50 million for DOE to develop a plan for reprocessing commercial irradiated fuel and to begin the siting process for one or more reprocessing facilities in June 2006, with FY2007 as the target for site and technology selection. Clearly, without a proposed technology that is economically viable and truly proliferation-resistant, the plan to begin siting a facility this summer is putting the cart well before the horse.

The only private commercial reprocessing facility in the United States, West Valley in New York State, was an economic and environmental disaster, resulting in radioactive waste that is still threatening the groundwater and the Great Lakes watershed more than 30 years later. A 1996 estimate on the cost for cleaning up the part of the site that did reprocessing is \$5.2 billion.

It has been reported that the Office of Management and Budget (OMB) has initially approved a request of \$250 million in FY2007 for the new global nuclear energy initiative that includes reprocessing. An additional \$150 million may also be allocated for research and development of reprocessing and transmutation technologies. These proposed expenditures, especially at a time of significant budget constraints, are a misguided diversion of federal resources and risk seriously undermining U.S. national security.

The attached fact sheets provide additional information about the proliferation, cost, and environmental problems resulting from reprocessing, and address the reasons why it will not solve our nuclear waste problem. The contents of the fact sheets are solely the responsibility of the organization that produced them. Please contact any of the organizations if you need further information.

Sincerely,

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<sup>1</sup> U.S. National Research Council, Committee on Separations Technology and Transmutation Systems, *Nuclear Wastes: Technologies for Separations and Transmutation*, National Academy Press, Washington DC (1996)

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