December 9, 2008

Dear President-Elect Obama:

We are writing to urge you to eliminate both the Department of Energy's (DOE) Global Nuclear Energy Partnership (GNEP), which has focused on restarting nuclear waste reprocessing in the United States, and the reprocessing research program in the Advanced Fuel Cycle Initiative (AFCI). Reprocessing would cost taxpayers hundreds of billions of dollars, undermine U.S. nonproliferation policy, pollute the environment, and threaten public health. Moreover, reprocessing worsens the nuclear waste problem, rather than solves it. Instead, your administration should ensure that spent (irradiated) fuel at commercial reactor sites is better protected to make it less vulnerable to attack.

Reprocessing Would Cost Taxpayers Hundreds of Billions of Dollars
Worldwide, over $100 billion has been spent trying to commercialize reprocessing and transmutation technologies, without success. According to the National Research Council in 1996, a reprocessing and fast reactor program that would process only existing U.S. spent fuel would cost about $500 billion and require some 150 years. The analysis does not include U.S. waste produced after 2010, or any waste from foreign reactors that the United States might import for reprocessing under the GNEP proposal. Nuclear industry officials recognize these costs: the Keystone Center's 2007 *Nuclear Power Joint Fact-Finding* report concludes that "reprocessing of spent fuel will not be cost-effective in the foreseeable future" and "does not eliminate the need for a geologic repository." Not surprisingly, the nuclear industry is reluctant to provide financial support for reprocessing, leaving taxpayers to shoulder the costs of any U.S. reprocessing program.

Reprocessing Would Increase the Risks of Nuclear Proliferation and Terrorism
U.S. reprocessing would create stockpiles of nuclear weapons-usable material, as is the case in France, the UK, Japan, and Russia. Globally, commercial reprocessing has produced nearly 250 metric tons of separated plutonium – enough to make 30,000 nuclear weapons. This material is vulnerable to theft by terrorist groups. Moreover, rather than discouraging other countries from reprocessing, a U.S. program will provide political cover for countries seeking to obtain this dual-use technology. DOE has already backed down from its initial requirement that GNEP "partner" countries agree to forego reprocessing. According to a 2008 Government Accountability Office report, reprocessing irradiated fuel would pose a "greater risk of proliferation in comparison with direct disposal in a geologic repository." Direct disposal will always be more proliferation resistant than reprocessing, regardless of how "proliferation-resistant" it is.

Reprocessing Would Increase Environmental Contamination and Threaten Public Health
Reprocessing, the most polluting part of the nuclear fuel cycle, actually increases the number and complexity of the radioactive waste streams that must be managed. Reprocessing releases radioactive gases, and results in large amounts of liquid and solid radioactive waste. Moreover, separating, transporting and processing the plutonium into new fuel increases the risk of environmental contamination via an accident or terrorist attack. The only private U.S. commercial reprocessing facility, West Valley in New York State, was shut down after only six

years of operation, but its radioactive waste still threatens the groundwater and the Great Lakes watershed more than 30 years later and will cost $5.2 billion to clean up. The radioactive wastes from reprocessing for nuclear weapons production at Hanford, Savannah River Site, and Idaho National Laboratory also continue to threaten important water resources.

Reprocessing Does Not Solve the Nuclear Waste Problem—not even in France

The size of the geologic repository required to dispose of nuclear waste depends not on the volume of the waste, but on the amount of heat it generates. Because reprocessing does not reduce the level of heat, it does not affect the need for a repository or reduce its required size. Although France reprocesses all its spent nuclear fuel, it is faced with the same difficulties the United States has in siting a permanent geologic repository. The proposed permanent repository site in Bure, France faces overwhelming public opposition, similar to Yucca Mountain in Nevada. In addition, reprocessing has polluted the environment, including the ocean as far away as the Arctic Circle, and has created a stockpile of more than 80 metric tons of separated plutonium.

Reprocessing Would Not Make a Contribution to Decarbonizing Electricity

Despite highly skeptical Congressional appropriators, who have deeply cut the funds requested for GNEP and prohibited use of these funds for building demonstration or commercial-scale facilities, DOE recently released a Draft Programmatic Environmental Impact Statement (PEIS) for GNEP that outlines broad alternatives for large-scale commercial reprocessing. However, even under the most elevated scenarios for carbon emissions pricing, none of the reprocessing and plutonium fuel-burning options in the PEIS could plausibly advance to a stage of commercial viability for a half century or more, all the while incurring tens of billions of dollars in publicly-funded development costs that would rob nearer-term and more cost-effective decarbonization technologies of needed support.

Even the "No Action" alternative in the draft PEIS envisions continuing to ramp up the research and development for reprocessing, without offering any compelling argument that this research will make a contribution to the relevant and urgent task over the next several decades of decarbonizing the world's energy supply system. Massive progress on decarbonization needs to be implemented *immediately* – not 40 years from now. We have lost eight years in attacking this problem head on, and now we must move that much more quickly to make up lost ground. A half-century from now the uranium and plutonium locked up in spent fuel will still be there. But the climate that sustains life-as-we-know it on this planet will not be, unless we move into action using the many low-carbon energy technologies that are available now.

Focus should be on Securing Nuclear Waste at Reactor Sites

Under any of the current proposals for managing nuclear waste, irradiated fuel will remain at reactor sites around the country for at least several decades. Out of concern for public health and safety, public interest groups from around the country have developed *Principles for Safeguarding Nuclear Waste at Reactors*. These Principles are attached, along with the list of more than 150 national and local signatory organizations representing millions of members — citizens, taxpayers, and ratepayers. We urge your administration to focus on addressing the current security threats from waste at reactor sites, by ensuring that the waste is stored safely and securely on site.

We again urge you to eliminate both the domestic and international components of the Global Nuclear Energy Partnership, and the reprocessing research program in the Advanced Fuel Cycle Initiative. Reprocessing would increase the risks of nuclear proliferation and nuclear terrorism, be very expensive, and produce additional radioactive waste. It would not solve our nuclear waste problem. We urge you to focus instead on ensuring that nuclear waste is stored safely and securely at reactor sites.

We appreciate your serious consideration of this issue.

Respectfully,

National Organizations

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