

**ALLIANCE FOR NUCLEAR ACCOUNTABILITY
GREENPEACE INTERNATIONAL
NATURAL RESOURCES DEFENSE COUNCIL
NUCLEAR CONTROL INSTITUTE
NUCLEAR INFORMATION AND RESOURCE SERVICE
PEACE ACTION
PHYSICIANS FOR SOCIAL RESPONSIBILITY
SAFE ENERGY COMMUNICATIONS COUNCIL**

October 3, 2002

Re: Oppose nuclear reprocessing provisions in H.R.4

Dear Energy Conferee:

As national public interest, environmental, and public health organizations actively engaged in nonproliferation issues, we urge you to reject provisions in H.R. 4 (research and development) that would promote nuclear fuel reprocessing and initiate a dangerous reversal of U.S. nonproliferation policy. The House-passed energy bill authorizes \$10 million towards this effort, while the Senate amendment establishes an Office of Spent Nuclear Fuel Research within the Department of Energy.

Reprocessing irradiated fuel yields plutonium, which is vulnerable to theft or diversion by terrorists, running contrary to the post-9/11 efforts to improve national security. Rejected by U.S. non-proliferation policy since the Ford and Carter Administrations, reversing the U.S. ban on reprocessing would set a dangerous precedent, encouraging other countries to create plutonium industries and adding hundreds of tons to global plutonium stockpiles that already pose serious proliferation and security risks. The attached Wall Street Journal lead editorial of October 2, 2002, highlights the risks involved. Though primarily focused on the problems associated with plans to process weapons plutonium into nuclear fuel, the authors correctly connect these issues and call for an immediate end to the commercial use of plutonium.

Reprocessing and other “spent fuel technologies” will not solve the nuclear waste problem.

These costly technologies separate weapons-usable plutonium from high-level waste for use as nuclear fuel, in spite of the increased risk of reactor accidents and high costs associated with plutonium fuel. But plutonium constitutes only about one percent of high-level nuclear waste, so most of the deadly radioactive poisons would remain as waste. In addition, these messy processes create their own hazardous, radioactive and mixed waste streams that, as liquids and gasses, are even more difficult to manage than waste that has been left in solid form. In the case of conventional reprocessing, the volume of unusable waste that would require permanent isolation from the environment would be greater than the original amount of irradiated nuclear fuel *by at least a factor of ten*. The “spent fuel technologies” proposed in H.R.4 would not alleviate the controversy over federal nuclear waste policy; high-level nuclear waste storage/disposal facilities would still be needed to support any reprocessing or transmutation scheme.

So-called advanced technologies, such as accelerator transmutation of waste, would require numerous reprocessing cycles, each stage increasing risks of accident and theft. These technologies would also necessitate construction of an entirely new generation of reactors and reprocessing plants, which would cost billions of dollars and take decades to accomplish - *if* they proved technically feasible. DOE estimates that using accelerators for transmutation of nuclear waste would require 118 years and \$279 billion to treat the entire U.S. irradiated fuel inventory.

At West Valley, New York, **the only commercial reprocessing plant in this country failed miserably**, reprocessed only one years' worth of irradiated fuel in the 6 years it operated (1966-1972), and was plagued with fuel cladding fires, high worker exposures and environmental contamination. The uranium recovered was contaminated and unable to be used for reactor fuel. In 1996, DOE projected the cost to clean up the mess at up to \$8.3 billion. US and NY taxpayers are spending about \$100 million a year to clean up and prevent further environmental damage from the eroding and deteriorating site.

Elsewhere, in Britain, France, Japan and Russia, the reprocessing of irradiated fuel has resulted in massive stockpiles of weapons-usable plutonium that presents a formidable disposition challenge. The amount of plutonium accumulated in those countries will soon rival the entire amount of plutonium stockpiled during the Cold War by U.S. and Soviet military operations, continually increasing the global nuclear weapons proliferation risk.

Reprocessing irradiated nuclear fuel is an economic, security, environmental and health mistake that should not be repeated in the United States. We urge you to use your influence to ensure that these provisions do not become law.

Sincerely,

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With the support of the following regional and local organizations:

Action for a Clean Environment – Alto, GA
Blue Ridge Environmental Defense League – Glendale Springs, GA
Central Pennsylvania Citizens for Survival - State College, PA
Citizen Alert – Las Vegas, NV
Citizens Awareness Network – Vermont, Connecticut, Massachusetts, New York
Citizens' Resistance at Fermi Two - Monroe, MI
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Snake River Alliance – Boise, ID
Southwest Research and Information Center – Albuquerque, NM
Tri-Valley CAREs – Livermore, CA
Western NC Physicians for Social Responsibility – Asheville, NC

*cc. The Honorable Tom Daschle, Senate Majority Leader
The Honorable Trent Lott, Senate Minority Leader
The Honorable Dick Armey, House Majority Leader
The Honorable Dick Gephardt, House Minority Leader*

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Playing With Plutonium

The weekend's scare over smuggled uranium in Turkey turned out to be a false alarm. But the danger of nuclear-weapons fuel falling into the hands of terrorists remains clear and present. All of which makes even stranger the Bush Administration's growing enthusiasm for using plutonium as fuel for commercial nuclear reactors.

The Bush-Clinton policy on nuclear reactor fuel is a gift to terrorists.

Unlike the cheaper, safer low-enriched uranium that has become the staple of nuclear power generation, plutonium is the pure stuff of bombs. It is user-ready and compact enough to stash under a taxi seat; only a small amount could yield several nukes on the order of the one that destroyed Nagasaki.

That's why plutonium—a primarily man-made material extracted from spent reactor fuel—has for years been restricted in the U.S. to national defense uses. Going back to the mid-1970s, these columns fought an effort to commercialize plutonium use, and our allies included Dick Cheney, then President Ford's Chief of Staff.

In 1976, Mr. Ford stopped the use of plutonium for commercial-reactor fuel in the U.S. He argued that not only was plutonium a big money-loser, but its commercial use entailed far too great a risk of bomb material straying into rogue hands. In 1983, the U.S. wisely scrapped its biggest commercial R&D plutonium project, the Clinch River Breeder Reactor.

Well, here we go again. Under a deal signed between the U.S. and Russia during the Clinton years, and continued by the Bush Administration, all sorts of new plans for plutonium are afoot. The original aim was to get rid of plutonium from the decommissioned arsenals of the Cold War by using it up as fuel in nuclear reactors.

But that brings us right back to the risk of theft along the way. To feed today's reactors, which are geared for uranium, plutonium must first be fabricated into mixed-oxide fuel, or MOX. That means shipping it in weapons-

ready form to MOX fabrication plants, then dispersing it among the reactors themselves. Even after it is blended into MOX fuel, plutonium is still relatively easy to separate out.

The amounts involved here are staggering, with the U.S. and Russia each pledging to run through 34 metric tons of plutonium, enough to make thousands of bombs. The

whole process would take at least 20 years. We are somehow supposed to believe that even in Russia—not famous for top-flight inventory control—nothing would go astray.

Nor would this come cheap. Neither Russia nor the U.S. has facilities for turning plutonium into commercial fuel. So to show the Russians we're serious, the Bush Energy Department has ordered up a MOX plant to be built in South Carolina, over the protests of Governor Jim Hodges, with plans to haul the plutonium-based fuel to reactors in North Carolina. Russia, pleading a shortage of funds, is looking to the U.S. for billions of dollars in subsidies to build its own MOX plant and possibly a fast-breeder reactor run on almost pure plutonium.

Like all bad ideas, this one is also getting worse. With the old taboo on commercial use of plutonium now gone, creative bureaucracies are proposing a whole new generation of plutonium-based reactors. Energy Secretary Spencer Abraham has been talking up the idea, and none other than National Security Adviser Condoleezza Rice—too young, perhaps, to recall the 1970s debate—enthused recently to the Financial Times about the vision of helping Russia develop a generation of fast-breeder (plutonium-fueled) reactors.

It's problem enough for the world that a number of nations still engage in commercial reprocessing of plutonium, including France, Britain, India and Japan. These programs have been struggling due to high costs. The sooner they're gone, the better.

Commercial use of plutonium is a gift to the world's terrorists and rogue states. It would be folly for the U.S. to head any further down this path, and it is twice nuts to even think of subsidizing Russia for any such project.