



Plutonium Dreams: Making Plutonium a Commercial Fuel

By Arjun Makhijani

Making [plutonium](#) a commercial fuel has been a dream of nuclear advocates for decades. Atomic reactors would convert uranium-238, which is not a reactor fuel, to [plutonium](#)-239, which is. Breeder reactors would make more fuel than they consumed. It would be “magical.”

This dream gave rise to messianic pronouncements of paradise on Earth. Science writer David Dietz said in 1946 that the “day is gone when nations will fight for oil.” Cars would run for a year on a single pellet of nuclear fuel. Looking back on all this excitement, Alvin Weinberg, the first director of Oak Ridge National Laboratory, wrote in 1981 that the nuclear power proponents of the 1940s and 1950s had “a little bit of the same spirit as the Ayatollah [Khomeini] has at the moment.”

Well, the effort to commercialize plutonium fuel has so far cost the world’s taxpayers and electricity ratepayers a hundred billion dollars. That’s real money even in Washington, London, Paris, and Tokyo. They haven’t succeeded yet. Prototypes of the main reactor design they’ve tried have more often than not turned out to be costly lemons. And you can’t even make lemonade out the hulks of the shutdown reactors, because these are highly radioactive.

This is more than a nuclear waste mess. It’s dangerous for proliferation. Plutonium that was destined to be used a fuel is piling up at several sites around the world – more than 200 metric tons of it. Some politicians are having ideas that may be this could be used to make bombs. For instance, the leader of the Liberal Party in Japan, Ichiro Ozawa, said in April 2002 that “We have plenty of plutonium in our nuclear power plants, so it’s possible for us to produce 3,000 to 4,000 nuclear warheads.”

The United States has had a cautious and sensible policy regarding commercial plutonium for over 25 years, over five presidential administrations from both parties starting with President Ford. It forswears the use of commercial plutonium as a fuel, because of proliferation risks. The fact that it is costly and environmentally messy has helped sustain this policy.

None of the facts have changed. But the Bush administration is proposing to encourage commercial plutonium fuel use. The policy was proposed in Vice-President Cheney’s energy plan in May 2001. Shockingly, this dangerous, proliferation-prone idea has not been revisited since the terrible tragedy of 9/11. On the contrary, it’s being pushed, even now.

It is time to consign the idea of plutonium fuel to the dust bin of history. That dust bin is already dangerous and radioactive enough from past efforts. If the nuclear boys want to breed, they should just have kids. It’s more fun.

For more information on the failure of commercial plutonium, see my report, [Plutonium End Game](#), on the website of the Institute for Energy and Environmental Research, www.ieer.org. This is Arjun Makhijani.



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