GlobalResearch
Center for Research on Globalization

# The Nuclear Madness Of George Bush

By Jon Lamb
Global Research, March 22, 2006
Green Left Weekly 22 March 2006

Region: USA
Theme: Oil and Energy

On February 6, US President George Bush confirmed his intention to commit the US to a program of reprocessing nuclear fuel. Touted as a key measure in the ”Advanced Energy Initiative‘‘, outlined in Bush’s January State of the Union speech, the plutonium extracted from spent fuel is allegedly to be used as a fuel source for a new generation of nuclear power plants across the US and elsewhere.

The proposal will overturn a 29-year ban in the US on reprocessing spent nuclear fuel to extract plutonium, implemented in 1977 by President Jimmy Carter as a gesture of the US’s commitment to reduce nuclear weapons proliferation. The ban was also motivated by the failure of the West Valley reprocessing facility in New York, which was closed down in 1972 after six years of operation and only processing a fraction of the nuclear waste sent there. The clean-up of this site continues, at a cost in excess of US$5 billion.

Bush has requested that Congress approve $250 million in the 2007 budget as the first instalment on a program to develop the technology and facilities for reprocessing spent nuclear fuel. Through the establishment of the Global Nuclear Energy Partnership (GNEP), Bush claims that the threat of nuclear weapons proliferation will be significantly reduced and that the program will facilitate “the expansion of civilian nuclear power in the United States and encourage civilian nuclear power in foreign countries to evolve in a more proliferation-resistant manner”.

Despite the massive environmental dangers associated with reprocessing spent nuclear fuel, and the potential for this program to significantly expand Washington’s capabilities for waging nuclear warfare, Bush said in his weekly radio broadcast on February 18: “As America and other nations build more nuclear power plants, we must work together to address two challenges: We must dispose of nuclear waste safely, and we must keep nuclear technology and material out of the hands of terrorist networks and terrorist states.”

Bush explained that the US plans to begin the construction of new reactors for power generation by the end of the decade. US undersecretary of state for arms control and international security Robert Joseph was reported in the Pakistan Daily Times on February 18 as stating that the GNEP aims to “prevent future Iran”, a reference to the hyped-up claims of Iran’s alleged nuclear weapons production capabilities.

According to the US Department of Energy (DOE) GNEP website, the process will go something like this: the US, along with advanced nuclear countries such as Russia and Japan (“fuel supplier nations”), will enrich uranium and provide it to developing countries (“user nations”), who will commit to not develop their own enrichment programs. The supplier nations will also provide technology in the form of new generation reactors or small-scale

reactors.

The spent fuel will be returned by the user nation for reprocessing, where the plutonium will be extracted and used in fuel for (the yet to be developed) advanced burner reactors and waste will be stored in waste depositories in the supplier nations. The DOE has already set aside 17.4 tonnes of highly enriched uranium to establish the “fuel bank” for the GNEP.

**Windfall for nukes industry**

In addition to the GNEP funding, Bush has requested that $347 million be made available for nuclear power research and development, an increase of 55% on the 2006 budget. The spending boom earmarked for nuclear technology will give a leg-up to the ailing nuclear power industry in the US, where 103 reactors currently generate 20% of electricity. Bush wants the US to emulate France, where nuclear reactors generate 78% of electricity needs.

“We didn’t think nuclear was going to come this hard and fast”, Andrew White, chief executive of General Electric Nuclear, stated in an article in the Qatar-based Gulf Times on February 18. According to White, GE Nuclear, a division of the GE Energy unit, is expected to double or treble its income within the next decade.

White believes that as many as 200 reactors will be built in the US within the next century, to replace the current reactors and meet the expected increase in demand for electricity. The nuclear slush fund provided by the White House has given greater certainty to GE and other companies that build reactors.

Bush’s latest pro-nuclear proclamations follow the energy bill passed last August, which committed $2 billion and tax-break incentives to assist energy companies develop the first six next-generation nuclear reactors.

It is estimated that between 1948 and 1998 more than $66 billion was spent on nuclear energy research and subsidies. The bill for the reprocessing component of GNEP is likely to rapidly grow — in 1996 the National Academy of Sciences estimated that the cost of reprocessing irradiated fuel from US reactors would easily exceed $100 billion.

**Next generation nukes**

The reprocessing of nuclear fuel from other nations and from within the US means that the US government will have access to (and control over) an exceptional amount of plutonium, with the potential for use in next generation nuclear weapons (like the “bunker-buster”) that Bush and Pentagon officials are keen to develop. Bush has requested $27.7 million to be spent on the Reliable Replacement Warhead program. A January 31 press release by the Union of Concerned Scientists (UCS) notes that “reprocessing just the spent fuel rods produced by US reactors in one year would result in some 20 metric tons of plutonium — enough to build over 3000 nuclear weapons”.

Wherever reprocessing has taken place, it has resulted in huge amounts of radioactive waste and major environmental degradation in and around the facilities involved. The Sellafield plant in Britain is responsible for converting large parts of the Irish Sea into a biologically dead body of water. Another infamous example is the Hanford Nuclear Reservation located in south-central Washington. Established in the 1940s as part of the Manhattan Project for the creation of the world’s first nuclear weapons, a large quantity of

weapons-grade plutonium was produced at the site for decades.

The 1518 square kilometre site is a toxic contaminated wasteland of immense proportion. Fifty-three million gallons of highly radioactive and chemical waste are stored in 177 underground tanks, each the size of a three-storey building. At least 70 of the tanks have ruptured, leaking an estimated 1 million gallons of waste into the surrounding soil and groundwater. The adjoining Columbia River is considered to be the most nuclear-polluted river in the Western hemisphere.

The cost of cleaning up radioactive waste at Handford has been revised upwards in the last five years from $4.3 billion in 2000 — when the contract was awarded to Bechtel (which plans to vitrify the waste into glass logs) — to a massive $50-$60 billion, with completion of works by 2035.

Bush administration and DOE representatives claim that the Uranium Extraction Plus (or Urex+) method of reprocessing will reduce the volume of radioactive waste produced by nuclear power plants. Yet this is strongly contested by US scientists and anti-nuclear advocates. According to the UCS, “reprocessing does not reduce the need for storage and disposal of radioactive waste, and a geological repository would still be required. Plutonium constitutes only about one percent of the spent fuel from US reactors. After reprocessing, the remaining material will be in several different waste forms, and the total volume of nuclear waste will have been increased by a factor of twenty or more, including low-level waste and plutonium contaminated waste.”

Furthermore, “to make a significant reduction in the amount of high-level nuclear waste that would require disposal, the used fuel would need to be reprocessed and reused many times with an extremely high degree of efficiency — which is very expensive and would take years. For example, in 1999, the Department of Energy estimated it would cost $279 billion over a 118-year period to fully implement a reprocessing and recycling program for the entire inventory of US spent fuel.”

The UCS also points out that previous research by DOE scientists Dr E. D. Collins and Dr Bruce Godwin contradict the claim that the Urex+ method is “proliferation resistant”. Collin’s research for the DOE’s Advanced Fuel Cycle Initiative highlights that the plutonium mixture produced by a process like Urex+ generates a much lower dosage rate of radiation than the conventional Purex method used elsewhere, making it easier to handle and thus easier to steal.

Godwin explained in a workshop in 1999 on nuclear fuel that “Examination of various cycles and the opinions of weapons-design experts lead to the conclusion that there is no ‘proliferation-proof’ nuclear power cycle”. According to UCS senior scientist Dr Edwin Lyman, the research of Collins and Godwin “clearly demonstrates that the administration’s new reprocessing program will pose a serious risk that terrorists could acquire the material needed to make a nuclear weapon from a US facility”.

**A mountain of waste**

The DOE plans to consolidate all of the stockpiled nuclear waste in the Yucca Mountain waste disposal site located in Nevada. With the prospect of a large number of new nuclear reactors being built in the US in the next 90 years, there will be even more pressure to dispose of the nuclear waste from power plants — presently around 55,000 tonnes of waste

and quickly approaching the legally allowable limit for Yucca Mountain (which at the earliest will be operational in 2015).

Philip Finck, the deputy associate laboratory director for Argonne National Laboratory, told a Congressional hearing last year that he expected the increase in the number of nuclear power plants would mean that the "US will need up to nine Yucca Mountain-type repositories by the end of this century".

Environmental activists and Nevada state officials strongly oppose the Yucca Mountain facility and are worried that the GNEP and reprocessing plan for spent fuel will further increase the risks of accidents and radioactive pollution. Bob Loux, who heads up the Nevada Commission on Nuclear Projects also believes that "the only reason that they're proposing reprocessing is Yucca Mountain is failing".



---