



Anger Over Britain's Secret Nuclear Waste Dumping

LONDON, England—Tons of foreign radioactive waste—enough to fill a six-mile-long trench—has been secretly buried on England's west central coast at Drigg, 50 miles from Ireland. The secret dumping violates government promises that Britain would never become an international disposal site for radwaste.

The Aug. 31 *Guardian* newspaper revealed that the waste from overseas power reactors has been buried in several miles of trenches—60 miles west of Leeds—in breach of official policy. The report led to outrage in Ireland and charges of lawlessness against British authorities.

"The mind boggles that scientists and technicians ... have chucked highly active waste into silos with no thought how to get it out," said Laurence Williams, the chief health and safety inspector of Britain's nuclear sites. Mr. Williams told the *Guardian*, "This is what we now have to do, and it is no easy task."

The waste is left from reprocessing highly radioactive fuel rods from nine countries. Thousands of tons of the waste fuel, containing plutonium, cesium and other deadly, long-lived isotopes, are imported under contracts between governments and British Nuclear Fuels Ltd. (BNFL), which does the reprocessing at Sellafield. The dump at Drigg is 10 miles from Sellafield.

BNFL dissolves the fuel in acid to extract plutonium and uranium so it can be returned to those countries. However, "In practice not even this has happened and the plutonium and uranium remain at Sellafield under guard," the *Guardian* said.

Green Party leader Trevor Sargent voiced outrage at the deception by the government and industry. Mr. Sargent said, "The Irish Government was promised, as was the British public, that nuclear waste brought to Britain [for reprocessing] would be returned to its country of origin."

"The report reveals ... also that the British government plans to turn this practice into a money-spinner, which further increases the exposure of Ireland to nuclear contamination risks," Mr. Sargent said.

The *Guardian* said it learned from government documents that Britain is to announce a change in its official policy and start charging foreign governments for the service of storing their waste.

The disclosure, "now means that Britain is to become a nuclear waste dump for Japan, Germany, Italy and Switzerland," Mr. Sargent told the Irish political website *Politics.ie*. "Ireland must not tolerate pollution from the nuclear industry or deception from the British Government," he said.

BNFL said the dump at Drigg, Cumbria, was a repository for low-level waste and that high-level waste was held at Sellafield—the government's giant reprocessing complex. The decision to bury reprocessing waste at Drigg meant the number of international transports of waste returned to overseas customers would be dramatically reduced, BNFL said.

But the *Guardian* reported that the waste was dumped at Drigg because it is expensive to return to the countries that produced it. The waste is part of an ever-increasing mountain of radioactive material stored at more than 20 sites in Britain. According to the giant utility company British Energy, Drigg is the only licensed low-level waste repository in the UK.

The government has said that up to 20 billion cubic meters of the waste will accumulate in Britain in the coming years—and the country has no means of disposing of it.

In Ireland, Fianna Fail party chairman Seamus Kirk condemned government plans, "to establish a global nuclear dust bin on our doorstep." He said Ireland would have to "call on all other countries to boycott this underground environmental time bomb." —*JL*

Sources: *The Guardian* & www.politics.ie; Aug. 31 & *Belfast Telegraph*, Sept. 1, 2004.

Door Opens for New U.S. Nuclear Weapons

By John G. Duesler, Jr.

Now that the 1993 Spratt-Furse Amendment has been repealed by this year's Congress, the road is now clear for the Pentagon to begin their long-desired push to research and develop so called "mini-nukes" (i.e. nuclear weapons that yield less than 5 kilotons in explosive power). While many might be inclined to imagine a smaller version of the nuclear warheads that exist today, the lifting of the Spratt-Furse restriction now makes it possible for the most talented U.S. nuclear engineers to actually blur the line between nuclear and conventional weapons. And this, in turn, will provide the fodder for a possible United States withdrawal from the Comprehensive Test Ban Treaty, which prohibits nuclear testing by the nuclear-capable states.

Department of Defense rationale justifies the work on "mini-nukes" as a necessary component of "bunker-busters," since smaller nuclear explosives may be more able to survive the extreme impact of an earth-penetrating bomb and, therefore, make it more able to be detonated deeply enough to destroy hardened bunkers (i.e. 30 meters). There are non-nuclear alternatives to defeating these bunkers, and, interestingly enough, the two most visible U.S. nemeses in the War on Terror have shunned deep-and-hardened bunkers, opting instead for a very primitive hole in the ground and ancient cave-dwellings.

So what's really going on here? Where does DOD really want to go with their Advanced Nuclear Concepts?

In the short-term, we can still expect work on low-yield nuclear bombs and robust nuclear earth penetrators. In the longer-term, however, the plans are more exotic, with nuclear science meeting at the crossroads of high powered lasers, nanotechnology, and rare metallic isomers. Microfusion

weapons, in theory, will combine miniaturization know-how with the robustness of nuclear weapons to create fourth-generation fusion bombs. Even more disturbing is the notion that the nanotechnology employed in these next generation warheads will NOT require enriched uranium or plutonium triggering mechanisms, thereby allowing proponents of these weapons to label them as "clean" (i.e. not requiring fissile materials). In addition, scientists are already looking towards microfusion technology as a source of energy, as well, so research into this area is quickly gaining priority in the U.S.

Another approach towards developing new families of nuclear bombs employs the use of rare metals that can exist in an excited, high energy state and, therefore, be quite potent as a fuel for explosives. One gram of a rare metal like Hafnium, for example, could theoretically yield explosive power up to 50,000 times that of one gram of TNT. Even more crucial to its military applications, Hafnium could be excited into releasing enough gamma rays to penetrate bunkers and kill humans, as well as any other biological weapons contained in that buried facility.

In each case, the brilliance of these nuclear scientists is dwarfed only by the measure of their work's destructiveness. Sadly, we are only left to imagine the good that could come from the hundreds of billions of dollars and superior brainpower diverted away from new agricultural techniques to feed the starving, new educational methods to teach the impoverished, and new medical advancements to diminish the suffering by the sick.

Instead, these national resources are targeted towards unnecessary Advanced Nuclear Concepts. Sad indeed.

Dr. John G. Duesler, Jr. wrote this analysis for the Nuclear Policy Research Institute's Nuclear Week in Review.

Appeals Court Dumps EPA's Lax 10,000-Year Containment Plan for Fuel Rods

By John LaForge

Proponents of the Yucca Mountain site near Las Vegas, Nevada for a national radioactive waste dump were handed a setback July 9, by the DC Circuit U.S. Court of Appeals.

The appeals court rejected a 10,000-year containment limit proposed by the Environmental Protection Agency (EPA) for high-level radioactive waste, calling it "entirely unreasonable" and "wholly inconsistent" with scientific recommendations.

At the controversial site, the government intends to bury 77,000 tons of intensely radioactive waste fuel rods from commercial power reactors—after moving the material through 40 states for 25 years.

The appeals court found that the often repeated 10,000-year containment plan violates the 1992 Energy Policy Act (EnPA), which requires that the time-line for long-term isolation of radioactive waste be "based upon and consistent with" the findings of the National Academy of Sciences (NAS), the country's most prestigious group of scientists. The three-judge panel found that "EPA wholly rejected the Academy's recommendations."

"Only in a world where 'based upon' means 'in disregard of' and 'consistent with' means 'inconsistent with' could EPA's adoption of a 10,000-year compliance period be considered ... permissible ..." the court said. Quoting the NAS report on the project, the Court said containment of the waste, "... should extend over the period of duration of hazard ... which is on the order of [one million] years."

The court noted that the NAS found "no scientific basis" for limiting the time period of the individual-risk standard to 10,000 years, and "unequivocally recommended a standard pegged to the time when radiation doses reach their peak ... after several hundred thousand years" (emphasis added).

The EPA, DOE and the Nuclear Regulatory Commission (NRC) had all defended the arbitrary 10,000-year limit, admitting that a "significantly longer time period for assessing compliance would be ... unworkable, and probably unimplementable." But the appeals court said, "We think it entirely unreasonable for EPA to have acted inconsistently with NAS findings and recommendations."

The court concluded that the EPA must either issue a revised standard that is "consistent with" the NAS peak dose standard "or return to Congress and seek legislative authority to deviate from the NAS report."

The court's opening remarks put the issue of radioactive pollution into perspective:

"Having the capacity to outlast human civilization as we know it and the potential to devastate public health and the environment, nuclear waste has vexed scientists, Congress, and regulatory agencies for the last half-century.... At lower doses, radiation can have devastating health effects, including increased cancer risks and serious birth defects such as mental retardation, eye malformations, and small brain or head size."

In view of the hundreds of thousands of years that its radiation will threaten the gene pool, nuclear waste will indefinitely remain a vexing issue.

In another potential derailing of the Yucca Mt. project, the National Atomic Safety and Licensing Board ruled Aug. 31, that the DOE failed to make available on the internet all documents related to licensing a Yucca Mt. dump as required by law, the watchdog group Public Citizen announced. Posting all relevant Yucca Mt. documents online allows the public to participate effectively in licensing proceedings.

The DOE admitted to the licensing board that out of an estimated 2.1 million documents related to the project, only half were posted online as of June 30.

Under law, the NRC cannot accept the DOE's licensing application for Yucca Mt. until six months after all the documents have been made available. The project will be delayed indefinitely until the documents are posted.

"Together with the recent court ruling that the U.S. EPA illegally set a 10,000-year compliance period for groundwater radiation release standards at Yucca Mt., it is clear that the project is flawed both in its science and in its management and should be abandoned," said Winona Hauter, Director of Public Citizen's Critical Mass Energy and Environment Program.

Nukewatch Staffer Wins Social Courage Award

Nukewatch staffer and *Pathfinder* editor John LaForge has been named co-recipient of this year's Social Courage Award by the Peace and Justice Studies Association, the organization of university peace studies programs in the U.S. The Association will recognize scholarship, lifetime achievement, a student thesis and social courage at its October 15 national conference in San Francisco.

