

## **Reprocessing is no solution**

Published: July 7, 2009

A June 25 opinion editorial by a vice president for Entergy Nuclear about nuclear waste reprocessing proposed that "reprocessing can reduce the amount of radioactive material."

Few countries in Europe and Asia have such programs because these have been financially and environmentally catastrophic.

The Bush administration began the new push for a Global Nuclear Energy Partnership. In 1979 a United States naval nuclear engineer and president, Jimmy Carter, ended this dangerous program.

Reprocessing spent nuclear fuel was supposed to be one alternative to lots and lots of mining forever and forever. The biggest experiment in reprocessing was at Sellafield in Britain. In 2005, after decades of contamination and leaks and general spewing of horrible matter into the ocean, air, and land around the reprocessing plant, Sellafield was shut down because a bigger-than-usual leak of fuel dissolved in nitric acid —some tens of thousands of gallons — was discovered. It contained enough plutonium to make about 20 nuclear bombs.

A nuclear dump site just six miles from the famous Champagne vineyards in France is leaking radioactive waste into the groundwater. According to the French nuclear safety authority, the "wall of a storage cell fissured" while concrete was being added to a recent layer of nuclear waste.

It showed levels of radioactivity leaking from another dump site run by the same company in Normandy — at up to 90 times above European safety limits.

That waste has seeped into underground water used by farmers, with contamination spreading into the countryside and threatening dairy production. The Champagne site will receive a total of 4,000 terabequerels of tritium — more than three times the amount of tritium waste as the dump site in Normandy.

Reprocessing is not a new idea. In fact, more than \$40 billion has been spent globally on reprocessing technologies that have never become commercially successful. A 1996 report by the National Academy of Sciences concluded that the costs of reprocessing and transmutation of irradiated fuel from waste produced by existing U.S. reactors alone easily could be more than \$100 billion, in the addition to the cost of a geologic repository.

The Department of Energy has not presented any estimate for the lifecycle cost of the

GNEP program, which also proposes reprocessing waste from new reactors and foreign waste.

Reprocessing will not solve our country's nuclear waste problem because it will make more waste streams that must be managed and cannot eliminate the need for a geologic repository.

The United States has not cleaned up the mess from past reprocessing. The only private commercial reprocessing facility in the United States, West Valley in NewYork, resulted in radioactive waste that is still threatening the Great Lakes watershed more than 30 years later and will cost \$5.2 billion to clean up.

Finally, if this had reduced the amount of material, then the U.S. taxpayers would not be on the hook for more than \$100 billion to clean up the reprocessing waste at the U.S. nuclear weapons sites that was reprocessed to get plutonium for nuclear weapons, as well as reprocessed naval fuel.

ROBERT LINCOLN

Rutland