

safety—that is, one based on the National Academy of Sciences recommendation of a peak dose compliance period, which figures from the Department of Energy (DOE) indicate is several hundred thousand years. The NAS study, issued in 1995, recommended “that compliance with the standard be measured at the time of peak risk, whenever it occurs.”

According to DOE’s projections, the peak risk to an individual from leaking radioactivity would occur about 300 000 years after closure of the dump. But recent research by the State of Nevada indicates that the metal storage containers can corrode and fail quickly in the Yucca Mountain environment. Without the estimated benefit of long-lived containers, the peak risk could occur in as little as 2000–3000 years.

EPA should revise its standard to encompass the time of peak dose. Limiting the compliance period to less than the time of peak risk threatens public health and safety for future generations. The Yucca Mountain project should not be continued if these standards cannot be met.

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July is becoming a tough month for nuclear waste. In July 2003, US District Court Judge Lynn Winmill in Idaho ruled that all of the approximately 90 million gallons of tank wastes at the Savannah River Site in South Carolina and Hanford Nuclear Reservation in Washington State are high level and must be buried in repositories. In July 2004, the US Circuit Court of Appeals for the District of Columbia ruled that a 10 000-year radiation standard for Yucca Mountain is inadequate. Congress will no doubt have to intervene to short-circuit the latter decision, or repositories in the US will never open.

Any geologic burial site will be fractured before—and especially after—tunnel boring. The very best that can be done is to supplement the rock’s containment ability with engineered barriers such as thick-wall steel casks and titanium drip shields.

The least the tank wastes weigh is 360 000 tons, or nearly five times the weight that’s slated to go in Yucca Mountain. The Department of Energy is committed to removing tank wastes from Savannah River and Hanford. In 1984, the department had potential crystalline repositories

in North Carolina, New Hampshire, Maine, and Wisconsin on its radar screen. Rocks in those states are granitic, which means each of the sites is already fractured and will be further fractured with drilling. Anyone wanting proof of that need only consult the Oskarshamn repository, a granite site about 150 miles south of Stockholm.

At some point, we’re going to have to be practical. We’ve enjoyed nuclear energy, and we’ve enjoyed our status as the world’s greatest nuclear power, but everything comes with a price. We now have 410 000

tons of spent-fuel rods and tank wastes spread all over the country, and all of us would breathe easier if they were out of sight, out of mind.

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Despite the astronomically long half-lives of fission products that will be contained in waste scheduled to be stored at Yucca Mountain, the politicking and debate over whether 10 000 years is a sufficiently long safety standard is absurd. It is

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