



## **Regulatory Rollbacks at Yucca Mountain: A Dangerous Precedent**

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Three key regulations were inappropriately weakened by the Bush administration to enable Energy Secretary Spencer Abraham to recommend that a dangerous high-level nuclear waste dump be established at Yucca Mountain, Nevada. Unless the Senate intervenes, the downgrading of environmental standards at Yucca Mountain will set a dangerous precedent of sacrificing public health and environmental safety to nuclear industry interests.

### **Environmental Protection Agency Radiation Standards**

The Energy Policy Act of 1992 directed the Environmental Protection Agency (EPA) to establish a site-specific rule for Yucca Mountain, although a generic standard for radiological disposal (40 CFR 191) was already in place. Environmental and public interest groups pressed for stringent standards, given the unprecedented nature of the Yucca Mountain Project and the long-lived and intense radioactivity of high-level nuclear waste. However, the final Yucca Mountain rule (40 CFR 197), issued in June 2001 by EPA Administrator Christine Todd Whitman, is more lenient than the generic standard. Environmental and public interest groups, as well as the State of Nevada, are challenging EPA's Yucca Mountain rule in court.

The Natural Resources Defense Council, lead attorneys in the case, has called the EPA's site-specific rule "scientific fraud." Whereas the generic standard features a compliance point 5 kilometers in any direction from the repository footprint, 40 CFR 197 extends this unregulated sacrifice zone to 18 kilometers in the direction of groundwater flow at Yucca Mountain. This unacceptably allows for reliance on dilution and dispersion of radionuclides from the repository, rather than containment, thereby undermining individual exposure limits and groundwater protection standards important to public health and the environmental protection.

### **Nuclear Regulatory Commission Licensing Rule**

The Energy Policy Act of 1992 directed the Nuclear Regulatory Commission (NRC) to make its repository licensing rule (10 CFR 60) consistent with the EPA's site-specific radiation standards. The NRC finalized its Yucca Mountain rule (10 CFR 63) in November 2001. The new rule incorporates the weaknesses of EPA's site-specific standard, wrongly establishing licensing criteria based on delaying and diluting the release of radionuclides rather than isolating the waste. The inherent weaknesses of this

rule would allow a Yucca Mountain repository to be licensed to leak, threatening drinking water supplies in the area.

### **Department of Energy Siting Guidelines**

The Department of Energy's (DOE) original repository siting guidelines (10 CFR 960) were established in accordance with Section 112(a) of the 1982 Nuclear Waste Policy Act to specify geologic factors such as hydrology, geophysics, seismic activity and others that would qualify or disqualify a site for development as a repository. Under this rule, the DOE should have disqualified Yucca Mountain on the basis of ground water flow time alone. Instead, the agency finalized revised siting guidelines (10 CFR 963) in November 2001 to permit Energy Secretary Spencer Abraham's February 2002 Yucca Mountain site recommendation, although there was no statutory basis or regulatory need for this change. In a dangerous departure from the concept of geologic isolation, the new siting guidelines do not specify qualifying or disqualifying geologic features but defer to projected compliance with the inadequate EPA standard. The DOE's current repository proposal relies heavily on engineered barriers to mask the known geologic deficiencies of the Yucca Mountain site. This unforeseen dependence on engineered barriers has contributed to a high level of technical uncertainty in the DOE's repository performance assessments, as highlighted by the Nuclear Waste Technical Review Board.