Bill Would Require Tighter Tracking Controls for Spent Nuclear Fuel Rods

Daily Report for Executives

The Bureau of National Affairs, Inc.
Publication Date: 2006-07-13

Nuclear Waste

Bill Would Require Tighter Tracking Controls for Spent Nuclear Fuel Rods

Sen. James Jeffords (I-Vt.) introduced legislation July 11 that would require the Nuclear Regulatory Commission to enact more stringent tracking controls over individual spent fuel rods stored at commercial nuclear power plants.

Jeffords, the ranking member of the Senate Environment and Public Works Committee, said the bill is in response to an April 2005 Government Accountability Office (GAO) report that said federal oversight over individual spent fuel rods has been inconsistent (69 DER A-33, 04/12/05).

“We must increase the scrutiny on the tracking of this material and ensure that spent nuclear fuel remains safely stored in appropriate facilities and does not end up in the wrong hands,” Jeffords said in a statement.

The NRC requires nuclear power plants to control and account for fuel assemblies, which consist of anywhere from 36 to 289 fuel rods, but it does not specify how individual rods or rod segments should be tracked.

The legislation (bill number unavailable) would require the NRC to report when loose fuel rods and fragments result from the loading or dismantling of a fuel assembly. It also would require the NRC to conduct annual inspections to make sure that plants are complying with waste tracking requirements.

The bill also instructs the NRC to develop best management practices for the safe storage of individual rods and fragments and for the inventory of spent nuclear fuel. The legislation would require the NRC to modernize its data management systems by developing an updated electronic system for storing data and for tracking spent nuclear fuel.

In addition, the measure would track the movement of spent nuclear fuel on-site at nuclear power plants and off-site to other facilities by requiring that manifests indicate whether shipments contain fuel rods or fragments.

After they are used in reactors, nuclear fuel assemblies are stored in large pools of water, which absorb much of their heat and radioactivity. After three to five years, the spent fuel is less radioactive and can be transferred to concrete and steel canisters for dry storage.

The April 2005 GAO report noted that three nuclear power plants have reported missing or unaccounted-for rods or portions of rods since 2000.

The most recent incident involved two unaccounted-for rod segments, dating back to 1979, at Entergy Corp.'s Yankee nuclear power plant in Vermont. After a three-month search, the fragments were found in a container in the plant's spent fuel storage pool.

The Jeffords bill was cosponsored by Sen. Patrick Leahy (D-Vt.); a House version was introduced July 11 by Rep. Bernie Sanders (I-Vt.).

July 12, 2006 09:43 PM EST