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NRC ISSUES NOTICE OF VIOLATION FOR MISPLACED VERMONT YANKEE SPENT FUEL PIECES

The Nuclear Regulatory Commission has issued a Notice of Violation to Entergy Nuclear Operations, Inc., for temporarily losing track of two spent fuel rod pieces at the Vermont Yankee nuclear power plant. Following an intensive search for the pieces, measuring 9 and 17 inches respectively, Entergy found them in the spent fuel pool at the Vernon, Vt., facility last year.

Reviews determined the fuel pieces never left the pool but were in a location not consistent with plant records. The material remained in the pool at all times, and there were no impacts on plant workers or members of the public.

In a letter to Entergy announcing the enforcement action, NRC Region I Administrator Samuel J. Collins stated that losing track of the irradiated fuel pieces increased the possibility they could be mixed with other irradiated components and shipped offsite to a low-level radioactive waste burial site. "As such, the staff considers this to be a significant failure of the licensee's MC&A (Material Control & Accountability) program, designed to prevent or detect the theft, loss or diversion of strategic Special Nuclear Material," Mr. Collins wrote.

The NRC has Resident Inspectors assigned to each operating U.S. nuclear power plant. After two entire spent fuel rods could not be located in the spent fuel pool at the permanently shutdown Millstone 1 nuclear power plant in 2000, the Resident Inspectors carried out inspections of spent fuel MC&A programs at each plant. As a result of that inspection at Vermont Yankee in March 2004, Entergy confirmed on April 20, 2004, that two fuel pieces were not in a container on the bottom of the spent fuel pool, as plant records indicated.

Entergy promptly launched a wide-ranging investigation to search for the missing pieces. In addition, the NRC initiated a special inspection into the apparent loss of the material. On July 13, 2004, Entergy discovered the pieces were in a container known as a liner in a different part of the spent fuel pool.

Three issues were identified by the special inspection and are cited in the Notice of Violation. Specifically, beginning in January 1980 and continuing until July 13, 2004, Entergy and the previous

owner of Vermont Yankee failed to (1) keep adequate records of the location of the fuel pieces; (2) follow its “Special Nuclear Material Inventory and Accountability” procedure when transferring the pieces from the container to the liner in January 1980; and (3) conduct adequate periodic physical inventories since January 1980 of all Special Nuclear Material in its possession.

The NRC has characterized the violation as Severity Level III. (Severity Level I represents the greatest significance and Severity Level IV the lowest level.) While a civil penalty is a possibility for such infractions, the agency considers several factors when making that decision, including a review of what, if any, corrective actions have been undertaken by the company. In this case, Entergy took numerous steps to correct the violation and prevent a recurrence, which included performing a complete physical inventory of all Special Nuclear Material at the plant; conducting a corporate assessment of the Vermont Yankee MC&A process; revising the plant’s MC&A process; and establishing a multi-disciplinary team to evaluate and recommend future improvements to the facility’s MC&A process.

Entergy will have 30 days to respond to the notice.

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