

UNITED STATES OF AMERICA  
 NUCLEAR REGULATORY COMMISSION

In the Matter of )

TENNESSEE VALLEY AUTHORITY )

Browns Ferry Nuclear Plant )  
 Units 1 and 3 )

Docket Nos. 50-259 and 50-296

EXEMPTION

I.

The Tennessee Valley Authority (the licensee) is the holder of Facility Operating License Nos. DPR-33 and DPR-68, which authorize operation of the Browns Ferry Nuclear Plant (BFN) Units 1 and 3. The licenses provide, among other things, that the licensee is subject to all rules, regulations, and orders of the U. S. Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

These facilities are two boiling water reactors located at the licensee's site in Limestone County, Alabama. One other boiling water reactor at this site is not affected by this exemption.

II.

Title 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," paragraph (a), in part, states: "The licensee shall establish and maintain an onsite physical protection system and security organization which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety."



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Containment access controls specified by 10 CFR 73.55(d)(8) require that any time frequent access to the containment is required, positive controls are maintained by a guard or watchman to assure only authorized personnel or materials are permitted into the containment.

BFN Units 1 and 3 have been shut down since March 1985 for modifications required to put the units in compliance with applicable regulatory requirements. A substantial number of the required modifications require frequent containment access. Therefore, the licensee has maintained a guard at a controlled access location to fulfill the requirements of 10 CFR 73.55(d)(8).

BFN Units 1 and 3 have been defueled since September 1985 and February 1987, respectively. In a defueled condition, the potential radiological hazard associated with postulated accidents for these reactors is very low. Therefore, on September 2, 1993, the licensee requested an exemption from 10 CFR 73.55(d)(8) to eliminate the positive containment access controls until the reactors are refueled. In response to a request for additional information dated December 2, 1993, on December 17, 1993, the licensee provided information verifying the small radiological hazard for the defueled reactors.

### III.

Pursuant to 10 CFR 73.5, "Specific exemptions," the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest. Pursuant to 10 CFR 73.55, the Commission may authorize a licensee to provide alternate measures for protection against radiological



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sabotage provided the licensee demonstrates that the alternate measures have "the same high assurance objective" and meet "the general performance requirements" of the regulation, and "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

The licensee asserts that these criteria are satisfied and an exemption from 10 CFR 73.55(d)(8) requirements can be granted, given the unique status of BFN Units 1 and 3 and the other controls which are or will be exercised to ensure the reactors are returned to service in a safe manner. Presently, the reactors are defueled, which reduces the radiological hazard potential within the containment such that sabotage could not create a substantial public radiation dose. The licensee notes that it will perform extensive return-to-service testing on all safety-related systems. This testing ensures that plant components can properly perform their intended design functions. After modifications are completed, the licensee will also perform security inspections to detect sabotage or introduction of foreign material which may have occurred during the recovery effort.

The licensee's application also discusses measures such as access authorization controls, criminal background checks, and fitness for duty verification. However, the staff has found that these measures are consistent with minimum compliance with the regulations, and do not constitute compensatory actions which justify granting the exemption.

#### IV.

As documented in the staff's safety evaluation, given the fact that the Browns Ferry Nuclear Plant Units 1 and 3 are defueled for the duration of this exemption, and the licensee's plans for security inspections and return-to-



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service testing of equipment provide the same high assurance, meet the general performance requirements, and provide an overall level of radiological sabotage protection equivalent to continued conformance to the regulation. Accordingly, the Commission has determined that, pursuant to 10 CFR 73.5, an exemption is authorized by law, will not endanger life or property or common defense or security, and is otherwise in the public interest. Therefore, the Commission hereby grants the licensee an exemption from the requirements of 10 CFR 73.55(d)(8) for positive containment access controls on BFN Units 1 and 3 during periods of frequent access until immediately before fuel is loaded. Provisions of 10 CFR 73.55(d)(8) pertaining to other containment access controls shall remain in effect.

Pursuant to 10 CFR 51.32, the Commission has determined that granting this exemption will not result in any significant adverse environmental impact ( 59 FR 3881 , January 27, 1994).

This exemption is effective upon issuance. This exemption expires for the Browns Ferry Nuclear Plant Unit 1 when the licensee begins to load nuclear fuel in that reactor, and expires for the Browns Ferry Nuclear Plant Unit 3 when the licensee begins to load nuclear fuel in that reactor.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 1st day of February 1994