

January 19, 1994

Docket Nos. 50-259
and 50-296

Dr. Mark O. Medford, Vice President
Technical Support
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Dr. Medford:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR AN
EXEMPTION FROM 10 CFR PART 73, SECTION 73.55(d)(8) - BROWNS FERRY
NUCLEAR PLANT UNITS 1 AND 3 (TAC NOS. M87709 AND M87711)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" related to a request dated September 2, 1993 by the Tennessee Valley Authority (TVA) for an exemption from requirements in Section 73.55(d)(8) of 10 CFR Part 73 for the Browns Ferry Nuclear Plant, Units 1 and 3. In response to a request by the NRC staff on December 2, 1993, additional information was provided by TVA on December 17, 1993. TVA is seeking exemption from this section's requirements for positive containment access controls during periods of frequent access, to be effective until fuel loading begins in the respective reactors.

This assessment has been forwarded to the Office of the Federal Register for publication.

Please contact me at (301) 504-1470 if you have any questions regarding this issue.

Original signed by
Joseph F. Williams, Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment

cc w/enclosure:
See next page

OFC	PDII-4/LA	PDII-4/PM	PDII-4/PM	OGC	PDII-4/D	
NAME	BClayton <i>BC</i>	JWilliams <i>JW</i>	DTrimble <i>DT</i>	<i>JFW</i>	FHebdon <i>FH</i>	
DATE	1/5/94	1/6/94	1/5/94	1/9/94	1/19/94	

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UNITED STATES NUCLEAR REGULATORY COMMISSION
TENNESSEE VALLEY AUTHORITY
DOCKET NOS. 50-259 AND 50-296
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from certain requirements of its regulations to Facility Operating License Nos. DPR-33 and DPR-68 issued to the Tennessee Valley Authority (the licensee) for operation of the Browns Ferry Nuclear Plant (BFN) Units 1 and 3, located in Limestone County, Alabama.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed action is in response to the licensee's application dated September 2, 1993, with additional information provided on December 17, 1993, for exemption from certain requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." Under the proposed exemption, the licensee would be relieved of requirements to provide positive containment access control by a guard or watchman during periods of frequent access. 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. The proposed exemption would be in effect until immediately before the licensee loads fuel in the reactors when the required modifications are completed.

The Need for the Proposed Action:

Pursuant to 10 CFR 73.55, paragraph (a), the licensee shall establish and maintain an onsite physical protection system and security organization. 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 defueled since September 1985 and February 1987, respectively. These reactors 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).

The licensee believes that the 10 CFR 73.55(d)(8) requirements are too restrictive, given the unique status of Browns Ferry 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 offsite radiation dose. The licensee 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.

An exemption from 10 CFR 73.55(d)(8) is required to permit the licensee to relax containment access controls during the recovery of Browns Ferry Units 1 and 3. The proposed exemption will not reduce requirements for containment access controls for Browns Ferry Unit 2.

Environmental Impacts of the Proposed Action:

The licensee has indicated that during the period of the exemption, the reactors will be maintained in a defueled condition. Postulated radiological sabotage within the containment in this condition cannot result in significant offsite radiation doses. Therefore, the environmental impact of this sabotage is negligible. There is no other change in environmental impact while the reactors are defueled.

The licensee has also indicated that, as the reactors are refueled and returned to service, it will perform extensive testing and inspections which will detect latent sabotage which could adversely impact plant operations. The licensee will test safety-related systems as they are returned to service to assure they are capable of fulfilling their design functions. The licensee will also perform security inspections to determine if unauthorized and potentially dangerous materials such as explosives have been introduced. These measures provide confidence that the reactors will operate as intended by their design. Therefore, the environmental impact of plant operations after the period of the exemption is unchanged from normally anticipated conditions.

Accordingly, the Commission concludes that granting the proposed exemption would result in no significant radiological environmental impact. With regard to potential non-radiological impacts, the proposed exemption does not affect non-radiological plant effluents and has no other environmental

impact. Therefore, the Commission concludes that there are no significant non-radiological impacts associated with the proposed exemption.

Alternative to the Proposed Action:

Because the staff has conclude that there is no significant environmental impact associated with the proposed exemption, any alternative to the exemption will have either no significantly different environmental impact, or greater environmental impact.

The principal alternative would be to deny the requested exemption. Denial of the exemption would result in no change in current environmental impacts. The environmental impacts of the proposed exemption and this alternative are similar.

Alternative Use of Resources:

This action did not involve the use of any resources not previously considered in the "Final Environmental Statement, Browns Ferry Nuclear Plant Units 1, 2, and 3," dated September 1, 1972.

Agencies and Persons Contacted:

The NRC staff has reviewed the licensee's request dated September 2, 1993, as supplemented on December 17, 1993. The NRC staff did not consult with other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

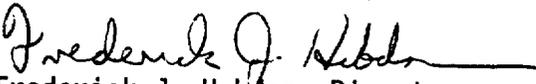
The Commission has determined not to prepare an environmental impact statement for the proposed exemption. Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For details with respect to this action, see the licensee's request for the exemption dated September 2, 1993, as supplemented on December 17, 1993,

which is available for public inspection at the Commission's Public Document Room, Gelman Building, 2120 L Street, N.W., Washington DC, and at the Athens Public Library, South Street, Athens, Alabama 35611.

Dated at Rockville, Maryland this 19th day of January 1994.

FOR THE NUCLEAR REGULATORY COMMISSION


Frederick J. Heddon, Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation