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DIST: Docket File	NRC PDR	LPDR	ORB#2 Rdg	DEisenhut	ORAB
SNorris RClark	OELD	ELJordan	TBarnhart-4	ACRS-10	OPA-CMiles
NSIC JMTaylor	SECY	RDiggs	JHeltemes	XTRA-5	Gray

Docket No. 50-259

April 8, 1983

Mr. Hugh G. Parris
 Manager of Power
 Tennessee Valley Authority
 500 A Chestnut Street, Tower II
 Chattanooga, Tennessee 37401

Dear Mr. Parris:

SUBJECT: EXEMPTION REQUEST - 10 CFR 50 APPENDIX J

Re: Browns Ferry Nuclear Plant, Unit No. 1

The Commission has issued the enclosed Exemption to the test interval requirements of Appendix J to 10 CFR Part 50 for the Browns Ferry Nuclear Plant, Unit No. 1 in response to your request of March 29, 1982. For the eleven isolation valves identified in the exemption, the two-year test interval for performing the Type C tests is hereby extended to coincide with the scheduled refueling shutdown of Browns Ferry Unit 1; this extension, however, shall not extend beyond May 6, 1983.

We have concluded that: 1) because the exemption does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the exemption does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) pursuant to 10 CFR Section 50.12, the exemption from the requirements of Appendix J of 10 CFR Part 50 for Type C testing is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest.

A copy of the Exemption is being filed with the Office of the Federal Register for publication.

Sincerely,

ORIGINAL SIGNED BY

Domenic B. Vassallo, Chief
 Operating Reactors Branch #2
 Division of Licensing

Enclosure:
 Exemption

cc w/enclosure

See next page

OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:AD:OR	OELD	DL: D
SURNAME	SNorris	RClark	DVassallo	GLainas		DEisenhut
DATE	4/1/83	4/1/83	4/1/83	4/1/83	4/1/83	4/1/83

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April 8, 1983

Distribution
Docket File
NRC PDR
Local PDR
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DEisenhut
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Manager of Power
Tennessee Valley Authority
500 A Chestnut Street, Tower II
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Enclosure:
Exemption

cc w/enclosure
See next page

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AG - conducted on valves in transmission letter of standard type procedure

OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:ORB#2	OELD
SURNAME	SNorris	DClark	DVassallo	GLinas	DEisenhut	J.R. GRAY
DATE	4/7/83	4/7/83	4/7/83	4/7/83	4/8/83	4/7/83

Mr. Hugh G. Parris

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UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION

In the Matter of)	Docket No. 50-259
TENNESSEE VALLEY AUTHORITY)	
(Browns Ferry Nuclear Plant,)	
Unit 1))	

EXEMPTION

I.

The Tennessee Valley Authority (TVA/licensee) is the holder of Facility Operating License No. DPR-33 which authorizes the operation of the Browns Ferry Nuclear Plant, Unit 1 (the facility) at steady-state power levels not in excess of 3293 megawatts thermal. The facility is a boiling water reactor (BWR) located at the licensee's site in Limestone County, Alabama. The license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

II.

Section 50.54(o) of 10 CFR Part 50 requires that primary reactor containments for water cooled power reactors be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J contains the leakage test requirements, schedules, and acceptance criteria for test of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. Section III.D.3 of Appendix J requires that Type C tests - which are defined as "tests intended to measure containment isolation valve leakage rates" - "shall be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years". Appendix J was published on February 14, 1973. At that time, all light water reactors were on a nominal annual

refueling cycle. However, most light water reactors are now on an 18-month or two-year refueling cycle.

By letter dated March 29, 1983, TVA requested an exemption from the Type C test interval requirements of 10 CFR 50, Appendix J for eleven isolation valves at Browns Ferry Unit No. 1 to permit continued operation until Unit 2 is ready to restart following an extended outage. Unit 1 is currently scheduled to shut down for the Cycle 5 refueling outage on April 15, 1983. For the eleven isolation valves, the two-year test interval specified in Appendix J expires on April 11, or April 12, 1983. To account for a possible delay in returning Browns Ferry Unit 2 to power following the torus load tests now scheduled to be completed on April 10, 1983 (and which in turn is responsible for the postponement in shutting down Unit 1), TVA has requested an extension to the two-year test interval to May 6, 1983 (i.e., a maximum extension of 25 days for any isolation valve).

The Browns Ferry units are on a nominal 18-month refueling cycle. During the past several years, the refueling outages have extended over a period of six to eight months. The extended outages have resulted from the various modifications being performed, the most significant of which has been the Mark I torus modifications. Browns Ferry Unit 1, which is the subject of this exemption, was scheduled to shutdown for refueling on March 1, 1983. However, the outage of Browns Ferry Unit 2 which shutdown on July 30, 1982, extended to March 18, 1983 - over two months beyond that which had been projected. To avoid simultaneous multi-unit outages, TVA has been operating Unit 1 in a coastdown mode and rescheduled the refueling outage to April 15, 1983 - about the time the startup tests are

expected to be completed on Unit 2.

Browns Ferry Unit 1 shutdown for the last refueling modification in April 1981. The eleven isolation valves which are covered by this exemption were individually leak tested in accordance with Appendix J on April 11 and 12, 1981. Unit 1 did not startup until October 1, 1981, so there was a period of almost six months - about 25% of the two year Appendix J test interval - during which the valves were not exposed to any significant temperature, pressure or conditions which would likely degrade the valves.

We have determined that the exemption from the Type C testing frequency of Appendix J requested by the licensee for the eleven isolation valves identified in TVA's letter of March 29, 1983 should be granted on the following bases:

1. The condition of the eleven isolation valves is not expected to change significantly during the requested extension period, which is short in comparison with the two-year test interval specified in Appendix J. The extension in the test interval is for a maximum of 25 days for any valve; if Browns Ferry Unit 1 shuts down for refueling as presently scheduled on April 15, 1983, the extension in time for testing any valve would be a maximum of four days.
2. The intent of Appendix J was that isolation valves be tested during refueling outages. It was not the intent of Appendix J to require a shutdown solely to test isolation valves. The reason for the request by the licensee is to extend the test interval to coincide with the scheduled shutdown for refueling.

3. None of the eleven isolation valves are located on major primary systems; in the event of an accident, they would not constitute a significant leakage pathway to the environment.
4. The two-year test interval specified for Type C tests in Appendix J was based on two years of expected exposure of valves to service. However, for about one quarter of the two-year period since the eleven valves were tested, Browns Ferry Unit 1 was in an extended outage during which the valves were not exposed to an operating environment. This should reduce any potential degradation of the valves.

III.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. Therefore, the Commission hereby approves the following exemption request:

Exemption is granted from the requirements of Section III.D.3 of Appendix J pertaining to the test frequency for conducting Type C tests on the eleven isolation valves identified in TVA's letter of March 29, 1983. The test interval may be extended to the next refueling outage of Browns Ferry Unit 1 but in no case shall extend beyond May 6, 1983.

The NRC staff has determined that the granting of this exemption will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4), an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

FOR THE NUCLEAR REGULATORY COMMISSION



Division of Licensing
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 8th day of April, 1983