

January 16, 1984

Docket Nos. 50-259  
50-260  
and 50-296

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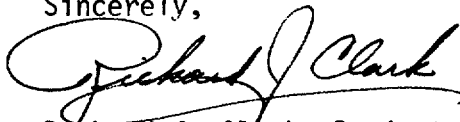
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Mr. Hugh G. Parris  
Manager of Power  
Tennessee Valley Authority  
500 A Chestnut Street, Tower II  
Chattanooga, Tennessee 37401

Dear Mr. Parris:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Opportunity for Prior Hearing." This notice relates to your application dated March 4, 1982, as modified by your September 3, 1982 and January 6, 1983 submittals, which would modify the operating licenses and the Technical Specifications (TSs) for the Browns Ferry Nuclear Plant, Units 1, 2 and 3 to permit reactor operation at power levels of 50% of rated power with one recirculation loop out of service. The proposed changes would delete the TS requirement which requires plant shutdown if an idle recirculation loop cannot be returned to service within 24 hours. The proposed changes would also modify the TSs to provide for: appropriate Average Power Range Monitor (APRM) flux scram trip and rod block settings; an increase in the safety limit Minimum Critical Power Ratio value; revisions to the allowable Average Planar Linear Heat Generation Rate values suitable for use with an idle recirculation loop and the inclusion of APRM flux and core plate pressure drop limits during single loop operation.

Sincerely,



Richard J. Clark, Project Manager  
Operating Reactors Branch #2  
Division of Licensing

Enclosure:  
Notice of Consideration

cc w/enclosure:  
See next page

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RJClark *RJC*  
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DVassallo  
12/27/83

AD:ORB:DL  
GCLainas  
12/15/83

OELD *RJC*  
R. Rawson  
12/ /83  
1/10/84

*Notice by  
Please discuss  
(Internal)  
with P. Rawson  
RS*

Mr. Hugh G. Parris  
Tennessee Valley Authority  
Browns Ferry Nuclear Plant, Units 1, 2 and 3

cc:

H. S. Sanger, Jr., Esquire  
General Counsel  
Tennessee Valley Authority  
400 Commerce Avenue  
E 11B 330  
Knoxville, Tennessee 37902

Mr. Ron Rogers  
Tennessee Valley Authority  
400 Chestnut Street, Tower II  
Chattanooga, Tennessee 37401

Mr. Charles R. Christopher  
Chairman, Limestone County Commission  
Post Office Box 188  
Athens, Alabama 35611

Ira L. Myers, M. D.  
State Health Officer  
State Department of Public Health  
State Office Building  
Montgomery, Alabama 36130

Mr. H. N. Culver  
249A HBD  
400 Commerce Avenue  
Tennessee Valley Authority  
Knoxville, Tennessee 37902

James P. O'Reilly  
Regional Administrator  
Region II Office  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

U. S. Environmental Protection  
Agency  
Region IV Office  
Regional Radiation Representative  
345 Courtland Street, N. W.  
Atlanta, Georgia 30308

Resident Inspector  
U. S. Nuclear Regulatory Commission  
Route 2, Box 311  
Athens, Alabama 35611

Mr. Donald L. Williams, Jr.  
Tennessee Valley Authority  
400 West Summit Hill Drive, W10885  
Knoxville, Tennessee 37902

George Jones  
Tennessee Valley Authority  
Post Office Box 2000  
Decatur, Alabama 35602

Mr. Oliver Havens  
U. S. Nuclear Regulatory Commission  
Reactor Training Center  
Osborne Office Center, Suite 200  
Chattanooga, Tennessee 37411

UNITED STATES NUCLEAR REGULATORY COMMISSIONTENNESSEE VALLEY AUTHORITYDOCKET NOS. 50-259, 50-260, 50-296NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO  
FACILITY OPERATING LICENSES AND OPPORTUNITY FOR PRIOR HEARING

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating Licenses No. DPR-33, DPR-52 and DPR-68, issued to Tennessee Valley Authority (the licensee), for operation of the Browns Ferry Nuclear Power Plant, Units 1, 2 and 3 located in Limestone County, Alabama.

The amendments would revise the Technical Specifications of the operating licenses to permit reactor operation at power levels of 50% of rated power with one recirculation loop out of service. Presently, the Browns Ferry Nuclear Power Plant, Units 1, 2 and 3 Technical Specifications (TSs) require plant shutdown if an idle recirculation loop cannot be returned to service within 24 hours. The change proposed by the licensee would delete this TS requirement and modify the TSs to provide for: appropriate Average Power Range Monitor (APRM) flux scram trip and rod block settings; an increase in the safety limit Minimum Critical Power Ratio (MCPR) value; revisions to the allowable Average Planar Linear Heat Generation Rate (APLHGR) values suitable for use with an idle recirculation loop; and the inclusion of APRM flux and core plate pressure drop limits during single loop operation; in accordance with the licensee's application for amendments dated March 4, 1982 as modified by September 3, 1983 and January 6, 1983 submittals.

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Prior to issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

By February 23, 1984, the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating licenses and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition

should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene shall be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, N.W.

Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner or representative for the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Domenic B. Vassallo: (petitioner's name and telephone number); (date petition was mailed); (plant name); and (publication date and page number of this FEDERAL REGISTER notice). A copy of the petition should also be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to Mr. H. S. Sanger, Jr., Esquire, General Counsel, Tennessee Valley Authority, 400 Commerce Avenue, E 11B 33C, Knoxville, Tennessee 37902.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained, absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendments dated March 4, 1982 as modified by September 3, 1982 and

January 6, 1983 submittals, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and at the Athens Public Library, South and Forrest, Athens, Alabama 35611.

Dated at Bethesda, Maryland this 16th day of January, 1984.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "D. Vassallo", with a long horizontal line extending to the right.

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

Basis:

In accordance with the Commissions regulations in 10 CFR 50.92, the staff has evaluated whether operation of the facilities in accordance with the proposed amendments is likely to involve a significant hazards consideration, using the three standards in 50.92.

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

When the Browns Ferry facilities were licensed, the Commission evaluated the consequences of a pump seizure accident - i.e., sudden stoppage of flow in one of the two recirculation loops while the unit was operating at full power. The consequences of this accident were within the design capability of the facility. The licensee has proposed to limit operation of a facility to 50% of the rated power if operation with only one recirculation loop in service, which is in the range where the core can adequately be cooled by natural circulation. Therefore, the proposed amendment is not likely to involve a significant increase in the probability or consequences of this type of accident. In postulating the consequences of a design-basis loss-of-coolant accident, the staff has previously evaluated the results if this were to incur in an active vs. inactive loop; having the break occur in an inactive loop is not likely to significantly affect the ability of the emergency core cooling systems to keep the core covered. The proposed amendments are thus not likely to involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the probability of a new or different kind of accident from any accident previously evaluated?

Operation with a single loop reduces the amount of coolant forced through the core and thus reduces the amount of power that can be obtained. However, it does not change other aspects of plant operation and thus does not create the probability of a new or different kind of accident from any of the accidents which have previously been evaluated for these facilities.

3. Does the proposed amendment involve a significant reduction in the margin of safety?

In the absence of compensatory measures or limits, the reduced core flow resulting from single loop operation would reduce safety margins. One of the compensatory actions proposed by the licensee is to reduce



maximum power level to 50%. The licensee has also proposed to increase the safety limit minimum critical power ratio (MCPR) from 1.07 to 1.08 to provide more margin in a transient to preclude entering a bulk-boiling regime (i.e., less than 0.99). The licensee has also proposed reduced maximum average power linear heat generation (MAPLHGR) limits to provide more margin on this thermal-hydraulic parameter.

During the past five years, single loop operation has been authorized for a Brown Ferry unit for a limited period of time. The most recent was Amendment No. 89 to the Browns Ferry Unit 1 license issued April 14, 1983. This amendment authorized single loop operation for a six day period while an M6 set was being repaired. Until more operating data was available, for these limited periods of operation the staff proposed increased surveillance of the jet pumps, the APRM flux noise and the core plate differential pressure. The licensee accepted the staff's additional proposed requirements. These additional requirements were not included in the licensee's application of March 4, 1982. In the absence of these more conservative compensatory measures, the staff at this time - cannot conclude that single loop operation would not result in a reduction in a margin of safety.

For the above reasons, the staff has made a determination that the application for amendments to permit extended operation with a single recirculation loop may involve a significant hazards consideration.