

April 3, 1989

Docket Nos. 50-280  
and 50-281

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Mr. W. R. Cartwright  
Vice President - Nuclear  
Virginia Electric and Power Company  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060

Dear Mr. Cartwright:

SUBJECT: SURRY UNITS 1 AND 2 - CIRCULATING WATER, SERVICE WATER AND RELATED  
CHANGES (TAC NOS. 72811 AND 72812)

The Commission has forwarded the enclosed "Notice of Consideration of  
Issuance of Amendments to Facility Operating Licenses and Proposed No  
Significant Hazards Consideration Determination and Opportunity for Hearing"  
to the Office of the Federal Register for publication.

This notice relates to your March 27, 1989 application to change the Surry  
Units 1 and 2 Technical Specifications for the canal inventory, canal safety  
related level actuation instrumentation and the emergency service water pumps.

Sincerely,  
Original signed by

Bart C. Buckley, Senior Project Manager  
Project Directorate II-2  
Division of Reactor Projects-I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

[NOTICE OF CON OF AMEND/SURRY]

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cc

Mr. W. R. Cartwright  
Virginia Electric and Power Company

Surry Power Station

cc:

Michael W. Maupin, Esq.  
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Mr. Michael Kansler, Manager  
Surry Power Station  
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Surry, Virginia 23883

Resident Inspector  
Surry Power Station  
U.S. Nuclear Regulatory Commission  
Post Office Box 166, Route 1  
Surry, Virginia 23883

Mr. Sherlock Holmes, Chairman  
Board of Supervisors of Surry County  
Surry County Courthouse  
Surry, Virginia 23683

Mr. W. T. Lough  
Virginia Corporation Commission  
Division of Energy Regulation  
Post Office Box 1197  
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Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
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109 Governor Street  
Richmond, Virginia 23219

UNITED STATES NUCLEAR REGULATORY COMMISSION  
VIRGINIA ELECTRIC AND POWER COMPANY  
DOCKET NOS. 50-280 AND 50-281  
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO  
FACILITY OPERATING LICENSES AND PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION  
AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-32 and DPR-37 issued to Virginia Electric and Power Company (the licensee) for operation of the Surry Power Station, Units 1 and 2 located in Surry County, Virginia.

The proposed Technical Specifications (TS) changes will revise Sections 3.7 and 3.14, and Tables 3.7-2, 3.7-4, 4.1-1 and 4.1-2A by imposing additional operating restrictions. The proposed changes would (1) raise the minimum circulating and service water intake canal level from 18 feet to 23 feet, (2) increase the requirement from two to three emergency service water pumps to be operable with two units at power, with provision for limited duration maintenance outages, and (3) provide operability and surveillance requirements for a new safety-related canal level actuation system which trips both units' and closes non-essential Circulating and Service Water valves should the canal level fall below 23'-6".

By letter dated October 19, 1988, and during an October 26, 1988 meeting, the licensee identified several items which required appropriate corrective actions. Based on further studies, the licensee, by submittal dated March 27, 1989, concluded that the proposed TS revisions, together with other physical plant modifications and procedural changes, are required to ensure consistency

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between the operating requirements and the reconstituted plant design basis in the area of intake canal inventory management and component cooling heat exchanger operability. The plant modifications included (1) installation of new vacuum breakers to prevent reverse siphoning at the higher canal level, (2) installation of a vacuum breaker valve in the discharge tunnel to break prime and thus conserve canal inventory, and (3) the installation of flow instrumentation in the service water piping to the component cooling water heat exchanger to allow throttling during accident conditions.

New periodic tests will be performed to verify the operability of the safety-related canal level actuation system and the component cooling water heat exchangers, and to verify the circulating and service water valve leakage flow rates. Moreover, changes have been made to the emergency operating procedures to require operator actions, during accident conditions, to confirm (1) the closure of certain valves in the circulating and service water systems to limit canal inventory depletion during accident conditions, (2) the emergency service water pumps are started when required, (3) the discharge tunnel vacuum breakers are opened, (4) the service water supply to the component cooling water heat exchangers (CCHX) is throttled, and (5) the Residual Heat Removal System is placed in service.

Before 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.

The Commission has made a proposed determination that the request for amendment involves no significant hazards considerations. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendments would not (1) involve a significant

increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The licensee has determined and the NRC staff agrees that the proposed amendments do not constitute a significant hazards consideration in that the proposed amendments will not:

1. Involve a significant increase in the probability of occurrence or consequences of an accident or malfunction of equipment which is important to safety and which has been previously evaluated in the [Updated Final Safety Analysis Report (UFSAR)].

These Technical Specification changes are accompanied by changes to the physical plant which will include new vacuum breakers to prevent reverse siphoning at the new, higher canal level, addition of a safety-related canal low level actuation system, repowering the Circulating Water valves to assure isolation in the event of an Emergency Diesel Generator failure, installation of manual vacuum breaker valves on the Discharge Tunnel to break prime and hence conserve inventory, and installation of Component Cooling heat exchanger Service Water flow instrumentation to allow throttling during a Design Basis Accident.

Changes to the Emergency Operating procedures have also been developed which will require operator actions to verify specific Circulating and Service Water valves are closed to limit canal inventory depletion during accident conditions, the Emergency Service Water pumps are started when required, the discharge tunnel vacuum breakers are opened, the CCHX's are throttled and the Residual Heat Removal System is placed in service. New Periodic Tests will ensure the operability of the safety-related canal level actuation system, verify Component Cooling Water heat exchanger operability, and verify Circulating and Service Water valve leakage flow rates.

Changes to the Technical Specifications will raise canal level to provide more working inventory, require additional Emergency Service Water pumping capacity during a Design Basis Accident and impose surveillance requirements on the new canal low level actuation system.

A review has been made of the containment analysis, Main Steamline Break, large break LOCA analysis and other UFSAR Chapter 14 accidents. These changes do not affect the probability of any

accident. The effect of the changes will be to improve the reliability of and to ensure Emergency Service Water supply under abnormal and accident conditions. The current UFSAR accident analysis results and conclusions, therefore, are not affected by the proposed changes.

2. Create the possibility of a new or different type of accident from those previously evaluated in the safety analysis report.

The enhancements to the reliability and performance of the Service Water supply system have no impact on the range of initiating events previously assessed. These proposed changes address and will eliminate or reduce the probability of several of the potential safety system failure modes identified in the Service Water design basis review.

3. Involve a significant reduction in a margin of safety.

Although operational requirements and plant systems have been modified to conform to the reconstituted design basis and assumptions, the Service Water system function is maintained, thereby ensuring the present safety analysis remains bounding. Specifically, increasing the canal inventory, requiring additional Emergency Service Water pumping capacity, addressing Component Cooling Water heat exchanger Service Water flow, providing time for operators to isolate specific Circulating and Service Water valves and limiting leakage flows ensures that the system function to provide adequate Service Water is being maintained. Since the system function is being maintained, the results of the UFSAR accident analyses remain bounding, and therefore, the safety margins are not impacted.

Therefore, based on the above considerations, the Commission has made a proposed determination that the amendment request involves no significant hazards considerations.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Regulatory Publications Branch, Division of Freedom of Information and Publications Services, Office of Administration and Resources Management, U.S. Nuclear Regulatory Commission,

Washington, D.C. 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-216, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland from 7:30 a.m. to 4:15 p.m. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. The filing of requests for hearing and petitions for leave to intervene are discussed below.

By May 10, 1989 , 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 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 amendments 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.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards considerations. The final determination will serve to decide when the hearing is held.

If the final determination is that the request for amendment involves no significant hazards considerations, the Commission may issue the amendments and make them effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

If a final determination is that the amendments involve significant hazards considerations, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendments until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendments before the expiration of the 30-day notice period, provided that its final determination is that the amendments involve no significant hazards considerations. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western

Union operator should be given Datagram Identification Number 3737 and the following message addressed to Herbert N. Berkow: (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 Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Michael W. Maupin, Esq., Hunton and Williams, Post Office Box 1535, Richmond, Virginia 23213, attorney for the licensee.

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 petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be 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 amendment dated March 27, 1989, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. and at the Local Public Document Room located at The Swem Library, College of William and Mary, Williamsburg, Virginia 23185.

Dated at Rockville, Maryland, this 3rd day of April 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

*Bart C. Buckley*  
Bart C. Buckley, Senior Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation