January 13, 199

Docket No. 50-338

DISTRIBUTION
Docket File
NRC & Local PDRs
PD22 Rdg
SVarga
GLainas
LEngle
OGC
DHagan
DMiller
ACRS (10)
GPA/PA
MSinkule

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: NORTH ANNA UNIT 1 - REQUEST FOR AMENDMENT RE: REDUCED MINIMUM REACTOR COOLANT SYSTEM FLOW RATE LIMIT (TAC NO. M82564)

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing." This notice relates to your application for amendment dated January 8, 1992, which would reduce the limit for reactor coolant system total flow rate for the remaining operating period until the North Anna Unit 1 steam generators are replaced in 1993.

Sincerely,

(Original Signed By)

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

9201210097 920113
PDR ADOCK 05000338
P PDR

Enclosure:
Notice

cc w/enclosure:
See next page

NRC FILE CENTER COPY

OFC	:LA:PD22	:PM:PD22	:D:PD22	:	:
NAME	:DMiller	:LEngle	:HBerkow	:	:
DATE	:1/10/92	:1/13/92	:1/13/92	:	:

OFFICIAL RECORD COPY
Document Name: NA LETTER

CP-1

DF01

Mr. W. L. Stewart
Virginia Electric & Power Company

North Anna Power Station
Units 1 and 2

cc:
Mr. William C. Porter, Jr.
County Administrator
Louisa County
P.O. Box 160
Louisa, Virginia 23093

Michael W. Maupin, Esq.
Hunton and Williams
P. O. Box 1535
Richmond, Virginia 23212

Dr. W. T. Lough
Virginia State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Old Dominion Electric Cooperative
4201 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. E. Wayne Harrell
Vice President - Nuclear Operations
Virginia Electric and Power Co.
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. Patrick A. O'Hare
Office of the Attorney General
Supreme Court Building
101 North 8th Street
Richmond, Virginia 23219

Senior Resident Inspector
North Anna Power Station
U.S. Nuclear Regulatory Commission
Route 2, Box 78
Mineral, Virginia 23117

C. M. G. Buttery, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P.O. Box 2448
Richmond, Virginia 23218

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

Mr. G. E. Kane, Manager
North Anna Power Station
P.O. Box 402
Mineral, Virginia 23117

Mr. J. P. O'Hanlon
Vice President - Nuclear Services
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. Martin Bowling
Manager - Nuclear Licensing
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

UNITED STATES NUCLEAR REGULATORY COMMISSION

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-338

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-4, issued to Virginia Electric and Power Company (the licensee) for operation of the North Anna Power Station, Unit No. 1 (NA-1), located in Louisa County, Virginia.

The proposed change would revise the NA-1 Technical Specifications (TS) by changing the minimum measured reactor coolant system (RCS) flow from a value of greater than or equal to 284,000 gallons per minute (gpm), to a reduced value of 275,300 gpm. NA-1 is currently involved in a mid-cycle steam generator inspection outage. An extensive eddy current inspection of the NA-1 steam generator tubes is being performed using very conservative analysis guidelines and plugging criteria. As such, a substantially increased number of tubes are expected to be plugged. As required by TS 3.2.5 and 4.2.5.2, NA-1 performs RCS flow rate measurements once per fuel cycle. NA-1 safety analyses are based, in part, on verifying, via the TS surveillance, that the RCS total flow rate is greater than or equal to 284,000 gpm. The additional steam generator tube plugging anticipated during the current mid-cycle inspection outage increases the likelihood of violating this TS requirement. Therefore, safety analyses and evaluations have been performed which support an approximate 3% reduction in the RCS total flow rate limit to 275,300 gpm.

9201210104 920113
PDR ADOCK 05000338
P PDR

The proposed TS change implements a reduced total flow rate requirement which is intended to bound future measured flow values and any required steam generator tube plugging until steam generator replacement. The changes will allow the unit to continue to operate with the expected increase in RCS loop resistance caused by increased steam generator tube plugging levels and ensure that the required safety margins for core cooling and accident analysis presented in the NA-1 Updated Final Safety Analysis Report (UFSAR) are maintained.

In summary, the review has demonstrated that a reduction in minimum measured flowrate for NA-1 to 275,300 gpm is accommodated by current analysis margins or by the assessment of a penalty against available retained departure from nucleate boiling ratio (DNBR) margin for all accidents. Explicit reanalyses were performed for the following events to confirm the adequacy of current analysis margins: (1) loss of normal feedwater, (2) loss of external electrical load, (3) uncontrolled control rod bank withdrawal at power, (4) complete loss of reactor coolant flow, and (5) locked reactor coolant pump rotor.

The analyses showed that all of the acceptance criteria previously established in the UFSAR continue to be met for each reanalyzed event. This conclusion is reinforced by continued verification that core physics characteristics for operation with a reduced RCS flow rate remain with the envelope established by the current reload safety evaluation. The current Engineered Safety Features and Reactor Protection System setpoints set forth in the NA-1 TS have been demonstrated to provide adequate plant protection at the reduced flow condition. Also, the current core thermal limits have been verified to remain bounding for operation with the reduced minimum RCS flow rate.

A review of the nuclear steam supply system (NSSS) design transients, NSSS fluid and control systems, reactor control and protection systems, NSSS primary components (including thermal and structural effects), and steam generator thermal/hydraulic performance has been performed. It was concluded that the NSSS systems and components will continue to meet applicable acceptance criteria for operation with the reduced design flow rates and the associated steam generator tube plugging levels.

An engineering evaluation has also been performed to assess the impact of the reduced flow and tube plugging on the existing containment integrity analyses (including the impact on net positive suction head of the engineered safeguards pumps) and containment subcompartment integrity analyses. The existing analyses were shown to remain bounding.

In addition, a balance of plant systems review shows continued acceptable performance under the reduced RCS flow/extended tube plugging condition.

Before issuance of the proposed license amendment, 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 amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment 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. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. [The proposed change] does not involve a significant increase in the probability or consequences of an accident previously evaluated. The impact of the reduced minimum measured RCS flow rate on operating characteristics, and accident analyses which support [NA-1] operation, have been fully assessed and documented in the attached safety evaluation. The proposed reduction to the [TS] minimum measured RCS flow rate does not impact either equipment or operating conditions that are considered in determining the probability of occurrence for any of the UFSAR Chapter 15 accident analyses. The proposed reduction of minimum measured RCS flow rate has the potential to increase accident analysis consequences. However, the results of the reanalyses show that the design limits are met. Therefore, the consequences of an accident previously evaluated remain unchanged.

2. [The proposed change] does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change to the [NA-1 TS] does not involve modifications to any of the existing equipment. The impact of the proposed reduced minimum measured RCS flow rate on [NA-1] operating characteristics, and accident analyses which support [NA-1] operation, have been fully assessed and documented in the attached safety evaluation. The proposed reduction to the [TS] minimum measured RCS flow rate does not create any new or different accident initiators, so no unique accident possibility is created. Therefore, the proposed [TS] change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. [The proposed change] does not involve a significant reduction in a margin of safety. The proposed amendment has been analyzed and the [TS] continue to ensure that adequate [RCS] total flow is maintained. The impact of proposed reduced minimum measured RCS flow rate on [NA-1] operating characteristics, and an accident analyses which support [NA-1] operation, have been fully assessed and documented in the attached safety evaluation. The analyses and equipment evaluations show that the applicable design limits are met. Therefore, there is no significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within thirty (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, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, 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, NW., Washington, DC 20555. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By February 18, 1992 , the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license 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 request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition 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. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at the Alderman Library, Special Collections Department, University of Virginia, Charlottesville, Virginia 22903-2498. 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 Panel, 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 Panel 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. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. 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 consideration. The final determination will serve to decide when the hearing is held.

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

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment 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 amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER 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 Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, 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, P.O. Box 1535, Richmond, Virginia 23212, 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 Panel 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 amendment dated January 8, 1992, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at the Alderman Library, Special Collections Department, University of Virginia, Charlottesville, Virginia 22903-2498.

Dated at Rockville, Maryland, this 13th day of January 1992.

FOR THE NUCLEAR REGULATORY COMMISSION

Leon B. Engle

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation