



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-32  
AND AMENDMENT NO. 167 TO FACILITY OPERATING LICENSE NO. DPR-37  
VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-280 AND 50-281

### 1.0 INTRODUCTION

By letter dated January 22, 1992, as supplemented March 9, 1992, Virginia Electric and Power Company (the licensee) requested a change to the Technical Specifications (TS) Section 3.23.C.2. The proposed TS change would allow planned entries into the 7-day action statement of TS 3.23.C.2 with one inoperable air handling unit (AHU) in the main control room (MCR) and one inoperable AHU in the emergency switchgear room (ESGR) in each unit from the same chilled water train to permit installation of chilled water connections for the two additional 50% chillers to be installed by the licensee in 1992. This change would allow the completion of the permanent upgrade modification of the MCR and ESGR air conditioning (AC) system during 1992. The March 9, 1992 letter provided supplemental information that did not change the initial proposed no significant hazard consideration determination.

### 2.0 BACKGROUND

The licensee determined by testing that the MCR and ESGR AC system was not adequate to handle unrecognized additional heat loads over an extended period of time. Interim modifications were proposed by the licensee, approved by the staff, and implemented at the site in 1989. The licensee has replaced, during subsequent outages, all related AHUs with larger capacity units, restoring the AHU portion of the MCR and ESGR AC system to two 100% redundant trains.

### 3.0 EVALUATION

The MCR and ESGR AC system is a shared system that cools the Surry Units 1 and 2 main control rooms, emergency switchgear rooms, and relay rooms. The system was originally designed to consist of two 100% capacity trains. Currently, each train contains one chiller refrigeration unit and four AHUs. The AHU units are allocated to the Unit 1 MCR, Unit 1 ESGR and the Unit 2 MCR, and Unit 2 ESGR. The ESGRs include the relay rooms. A third chiller is available as a maintenance swing chiller.

The licensee has completed, during previous outages, the replacement of the four AHUs to provide the original capability of two redundant 100% capacity units. Upon installation of the two additional chillers, this will complete the permanent modifications to the MCR and ESGR AC system to account for unrecognized additional heat loads and satisfy the original AC system design basis.

The current TS address the availability of the specific AHU but do not account for the increased ventilation capacity due to the recent installation of new AHUs. The improved AHUs are capable of providing the design base ventilation (cooling) requirements with one AHU inoperable for each component. The TS also require entry into a 7-day action statement when any one of the four AHUs or any one chiller becomes inoperable.

Installation of the additional chillers is scheduled as non-outage work in 1992. To install the chilled water piping connections for the new chillers, each train of the MCR and ESGR must be sequentially isolated and partially drained. This action will take one of the three chillers, two of the four AHUs for Unit 1, and two of the four AHUs for Unit 2 out of service for a period of 7 days. The remaining two chillers and four AHUs will continue to provide 100% cooling capacity for the Unit 1 and 2 MCRs and ESGRs.

The licensee has in place redundant 100% capacity AHUs for each space to assure that the ventilation capacity requirements are always maintained by the capacity of the new AHUs. Therefore, the redundancy and the capacity of the upgraded AHU configuration assures the staff that the margin of safety is not reduced during the entry into this proposed action statement. Also, Unit 1 is currently in a refueling outage and by completing the modifications during the Unit 1 outage, application of the proposed TS change would be limited to entries into the associated action statement for Unit 2 only. Therefore, upon loss of any of the two Unit 2 AHUs, or upon loss of one of the two remaining chillers, Unit 2 would be required to shut down unless the failed component could be repaired within 6 hours.

The proposed amendments would revise the TS to allow planned entries into the 7-day action statement to implement the above-cited piping modifications. Moreover, the proposed revision is not limited to two entries and if difficulties are encountered during the modifications, the action statement can be exited and subsequently reentered to complete the modifications in that train of chilled water. The proposed TS change, in the form of a footnote, will expire on June 30, 1992.

#### 4.0 SUMMARY

Based on its evaluation, the staff concludes that the proposed TS change is acceptable and appropriate in order to implement the planned permanent modifications and meet the original design basis criteria of the MCR and ESGR AC systems.

#### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Virginia State official was notified of the proposed issuance of the amendments. The State official had no comment.

#### 6.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding (57 FR 6041). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

#### 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Date: April 1, 1992