



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 125 TO FACILITY OPERATING LICENSE NO. NPF-21
WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397

1.0 INTRODUCTION

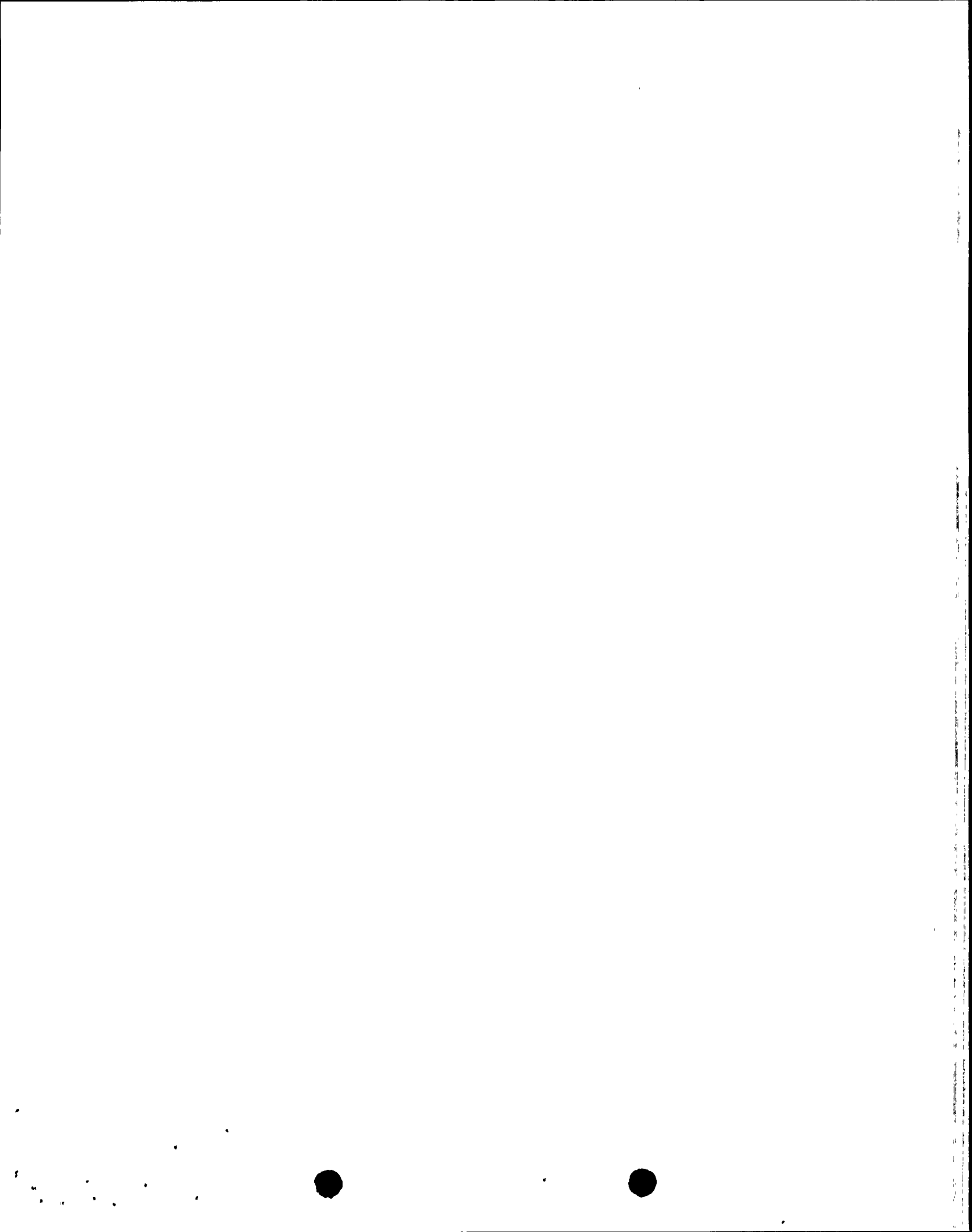
By application dated February 8, 1994, supplemented by a March 25, 1994, letter, the Washington Public Power Supply System (the licensee) applied for an amendment to the Nuclear Project No. 2 (WNP-2) operating license. The additional information contained in the March 25, 1994, letter was clarifying in nature, was within the scope of the initial notice, and did not affect the NRC staff's proposed no significance hazards consideration determination.

The proposed amendment would change Technical Specification (TS) Table 3.6.3-1, "Primary Containment Isolation Valves," by extending the maximum allowable isolation time interval for closure of reactor core isolation cooling (RCIC) turbine steam supply outboard isolation valve RCIC-V-8 from 13 to 26 seconds. In addition, Table 3.6.3-1 would also be revised to delete references to its Note (j) for RCIC-V-8 and RCIC turbine steam supply inboard isolation valve RCIC-V-63. Note (j) of Table 3.6.3-1 is used to identify those valves listed in the table for which radiological dose limitations are not the only consideration in establishing the minimum allowable closure times, but are the most limiting consideration (e.g., minimum closure time requirements based on high-energy line break (HELB) environmental or dynamic effects considerations exist but are not as restrictive).

The application was initiated as a result of a need to change the valve operator pinion and worm gearing to increase the available torque. This need was identified by Generic Letter 89-10 analyses which determined that additional torque margin is desirable to provide additional assurance of capability to close under high differential pressure.

2.0 DISCUSSION AND EVALUATION

The RCIC system provides a means of feeding water to the reactor vessel for decay heat removal when the secondary plant is isolated. The RCIC system is located outside the primary containment but has piping which penetrates the primary containment boundary. The RCIC turbine steam supply line is one such line. This line has two automatic, power-operated isolation valves inside containment (a large block valve, RCIC-V-8, and a smaller bypass line valve, RCIC-V-76, for warmup purposes) and one automatic power-operated isolation valve, RCIC-V-63, outside containment. The valves are normally open, which is the desired position in the event of a design-basis accident (DBA). The



automatic controls for these valves are provided for the purpose of isolating a break in the RCIC steam supply line outside containment. Automatic isolation upon a DBA-loss-of-coolant accident (LOCA) signal (i.e., containment high pressure/reactor vessel low level) is not provided for the RCIC steam line as it is desirable that the RCIC system be available during the accident. RCIC isolation requirements are based on radiological dose criteria for independent breaks in lines outside containment (see Standard Review Plan (SRP) Section 15.6.2) and the vulnerability of safety-related equipment due to HELB outside containment (see SRP Section 3.6.1). HELB criteria specify that a break in a line outside containment should not threaten safety-related equipment. A break in the RCIC steam line is not postulated to occur concurrently with a DBA-LOCA. The most limiting requirements are used as the basis for establishing TS operability requirements.

The current stroke time limitations for RCIC-V-8 and RCIC-V-63, as specified in the TS, are 13 seconds and 16 seconds, respectively. These values are the original licensing values. They were based on actual stroke time capability of the valves and were accepted based on their being within the 60-second generic acceptance criterion of SRP Section 6.2.4. In Amendment 26, Note (j) was added to the table when it was found that HELB equipment environmental qualification considerations indicated a need for a more restrictive 10-second isolation response time. The final safety analysis report (FSAR) was revised to reflect the 10-second requirement for the RCIC steam supply isolation valves.

The licensee has since reanalyzed the HELB effects and determined that a 26-second isolation response time limit for a RCIC steam line break would not result in unacceptable radiological consequences or HELB equipment environmental conditions. In a supplemental letter dated March 25, 1994, the licensee confirmed that (1) the main steam line break continues to be the limiting steam line break accident for radiological dose consequences and (2) current equipment environmental qualification requirements bound the new RCIC steam line break conditions. Based on these findings, the proposed amendment is acceptable.

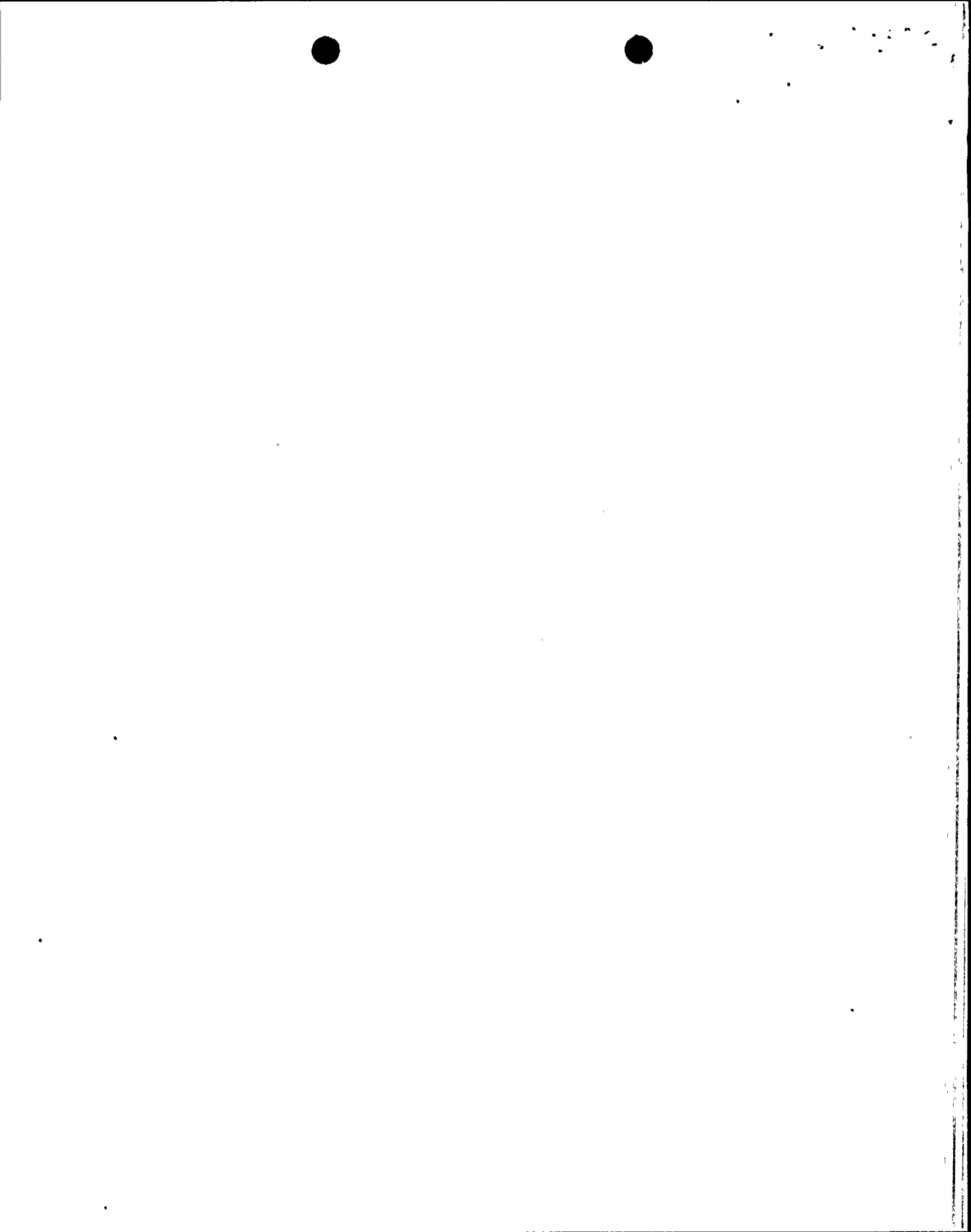
The staff has reviewed the licensee's application and determined that the appropriate acceptance criteria are met. The staff, therefore, concludes that the proposed changes are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Washington State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 24754). Accordingly, the amendment meets 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 the amendment.

5.0 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: June 17, 1994

