



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 21 TO FACILITY OPERATING LICENSES

NO. NPF-37 AND NPF-66

BYRON STATION, UNITS 1 AND 2

DOCKET NOS. 50-454 AND 50-455

AND

SUPPORTING AMENDMENT NO. 10 TO FACILITY OPERATING LICENSES

NO. NPF-72 AND NPF-77

BRAIDWOOD STATION UNITS 1 AND 2

DOCKET NOS. 50-456 AND 50-457

1.0 INTRODUCTION

By letter dated January 18, 1988, Commonwealth Edison (CECo), the licensee, submitted a proposed amendment to Facility Operating Licenses No. NPF-37, NPF-66, NPF-72, and NPF-77, for the Byron and Braidwood Stations, Units 1 and 2. The proposed amendment requests seven miscellaneous Technical Specification (TS) changes which are further discussed in Section 2.0.

A Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on April 6, 1988 (53 FR 11367). No requests for hearing and no public comments were received.

2.0 DISCUSSION AND EVALUATION

The following are descriptions and evaluations of each of the seven TS changes for Byron and Braidwood Units 1 and 2. None of the changes involve physical modifications to the facilities. It should be noted that some of the changes are specific to Byron Station.

Description of Change; Technical Specification Pages 3/4 4-27, 3/4 4-28, B3/4 4-5, B3/4 4-6, and 6-18

The proposed change deletes the requirement for a Special Report to the Commission if reactor coolant specific activity exceeds 1 microCurie per gram dose equivalent I-131 for greater than 500 hours in any consecutive six month period. It also deletes the requirement to shutdown a plant if reactor coolant iodine activity limits are exceeded for 800 hours in a 12-month period.

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Evaluation

This change is based on Generic Letter 85-19, dated September 27, 1985. The letter stated that reporting requirements for iodine spiking can be reduced from a short term report to an item included in the Annual Report. The letter further states that the requirements to shut down a plant after 800 hours with iodine activity above the limit can be eliminated due to the fact that nuclear fuel has been greatly improved in recent years, with the result that normal coolant iodine is well below the limit. Appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. The proposed TS changes are consistent with the model TS recommended in the Generic Letter, and are therefore considered acceptable.

Description of Change; Technical Specification Page 3/4 4-40

The proposed change revises Figure 3.4-4, "Nominal PORV Pressure Relief Setpoint Versus RCS Temperature for the Cold Overpressure Protection System Applicable up to 10 EFPY." The changes reflect a larger uncertainty in the wide range temperature instrumentation and prevent the need for additional stress analyses following an overpressure event.

Evaluation

The requested change to Cold Overpressure Mitigation System (COMS) setpoints is based on a letter from Westinghouse dated November 18, 1985 for two reasons: (1) A larger uncertainty in the wide range temperature instrumentation is assumed; and (2) The updated COMS setpoints eliminate the need for a detailed stress evaluation of the PORV inlet and discharge piping and steam generator tube sheet following a single overpressure event. The revised setpoints meet 10 CFR Part 50, Appendix G criteria and are consistent with the Byron/Braidwood FSAR. The margin of safety has not been reduced because the change is in the conservative direction and is therefore bounded by previous analyses. The proposed change is considered acceptable.

Description of Change; Technical Specification Page 3/4 5-1

The proposed change revises TS Surveillance 4.5.1.1, which deals with accumulator operability. The proposed change deletes the words "by the absence of alarms" from the phrase: "Verifying, by the absence of alarms, the contained borated water level and nitrogen cover-pressure in the tanks."

Evaluation

The licensee requested the change because the current wording could be interpreted that the unit must be shut down if an annunciator failed. Deleting the words "by the absence of alarms" permits the operators to verify the required accumulator borated water level and nitrogen cover pressure by using other instruments. Duplicate level channels and

pressure channels provide signals to two sets of safety-related instruments in the control room which can be used to read accumulator water level and nitrogen cover pressure. The proposed TS change still requires the verification of accumulator parameters, but will allow the operators flexibility in how the parameters are verified. The proposed change is consistent with Section 6.3 of the FSAR which describes the accumulators and the associated instrumentation. The proposed TS change has no effect on safety and is considered acceptable.

Description of Change; Technical Specification Page 3/4 6-23

The proposed change corrects a typographical error for one Safety Injection Valve number on Table 3.6-1, from "SI 8805D" to SI 8905D," for Byron Station TS only.

Evaluation

The corrected valve number, "SI 8905D," is consistent with those listed in Braidwood TS Table 3.6-1 and Byron/Braidwood FSAR Table 6.2-58. The change is administrative in nature, has no effect on safety, and is considered acceptable.

Description of Change; Technical Specification Page 3/4 7-14

The proposed change corrects a typographical error in the value of the ultimate heat sink (UHS) cooling tower basin water level from 873.5 feet to 873.75 feet, for Byron Station TS only.

Evaluation

The corrected water level of 873.75 feet above mean sea level is consistent with other portions of Byron TS 3/4 7.5 which reference a minimum UHS cooling tower basin water level. The change is administrative in nature, has no effect on safety, and is considered acceptable.

Description of Change; Technical Specification Page 5-6

The proposed change revises TS Table 5.7-1, "Component Cyclic or Transient Limits," so that it is consistent with the design limits contained in Section 3.9 of Byron/Braidwood FSAR.

Evaluation

The proposed change raises the limit for reactor coolant system (RCS) leak tests from 50 to 200, the limit for RCS hydrostatic pressure tests from 5 to 10, and the limit for secondary coolant system hydrostatic tests from 5 to 10. It also raises the limits for primary and secondary pressures during hydrostatic testing to 1.25 times the design pressures as required by the ASME Code. The changes are consistent with Section 3.9 of the FSAR and Section XI of the ASME Code. Although these changes raise the number of transients the plants are permitted to withstand, the changes are consistent with the FSAR. Therefore, the proposed changes are acceptable.

Description of Change; Technical Specification Pages 6-7, 6-8, and 6-13

The proposed changes are being made to update some Commonwealth Edison management titles and clarify the functional authority of Quality Assurance personnel. The change requested for Page 6-7 has previously been corrected in the Braidwood RS.

The proposed changes are administrative in nature. Because there are no significant changes in duties, the changes have no adverse effect on safety, and are considered acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves primarily changes in the installation or use of facility components located within the restricted area defined in 10 CFR Part 20, and changes in reporting and surveillance requirements. The changes are primarily administrative in nature and do not involve any physical modifications to the facility. 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has further 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; and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

5.0 ACKNOWLEDGEMENT

This evaluation was prepared by B. A. Azab.

Dated: July 27, 1988