



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. NPF-37

COMMONWEALTH EDISON COMPANY

BYRON STATION, UNIT 1

DOCKET NO. 50-454

1.0 INTRODUCTION

By letter dated October 13, 1989, Commonwealth Edison Company (CECo), the licensee, submitted a proposed revision to Facility Operating License No. NPF-37 for Byron Station, Unit 1. The proposed amendment revises the Technical Specifications to allow a one-time extension of the interval for performance of the visual inspection of inaccessible snubber.

2.0 DISCUSSION AND EVALUATION

Technical Specification 4.7.8b requires inaccessible snubbers to be visually inspected in accordance with a schedule based on the number of inoperable snubbers per inspection period. During the last inspection period for Byron Unit 1, one snubber in the inaccessible group failed the visual inspection. As a result of this failure, the next visual inspection would be required within 12 months ($\pm 25\%$) from the last inspection period. Because this group of snubbers is classified as inaccessible, the unit must be shut down for the surveillance to be performed. The surveillance must be completed by December 13, 1989 (12 months + 25%). Unit 1 is currently scheduled to begin a refueling outage on January 5, 1990. Since the unit has been operating continuously for the past 254 days, the inaccessible snubbers have been unavailable for inspection. Therefore, by letter dated October 13, 1989, the licensee requested a one-time extension for the inaccessible snubber visual inspection. The surveillance will be performed during the Unit 1 third refueling outage.

There are currently 291 snubbers installed on Byron Unit 1 of which 274 are classified as inaccessible. The snubbers function is to ensure that the structural integrity of the reactor coolant system (RCS) and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubber inaccessibility is determined based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location, as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.) and the recommendations of Regulatory Guides 8.8 and 8.10. This Technical Specification amendment requests an extension until January 24, 1990 to complete the visual inspection of the inaccessible snubbers on Unit 1. This extension of approximately 6 weeks will allow sufficient time to shut down Unit 1, establish containment access, and complete the surveillance in a safe and organized fashion.

2. During the last visual inspection interval of inaccessible snubbers, one snubber on the reactor coolant system failed and was determined to be frozen. The cause of the failure resulted from boric acid and rust which coated the snubber barrel. If the failed snubber had been frozen for the entire cycle, acting as a rigid strut, the piping system would still be acceptable with the additional thermal movement load imposed by the failed snubber. The failed snubber was replaced. However, as a result of this failure, the visual inspection interval for inaccessible snubbers was decreased from 18 months ($\pm 25\%$) to 12 months ($\pm 25\%$). One snubber failure out of 680 inaccessible snubbers (installed as of the last inspection) has decreased the allowed inspection interval by about one-third. This failure is not an indication of a generic concern. Since the snubber was replaced, it should be operable when it is next inspected.

All the inaccessible snubbers on Unit 1 are designed to function for the life of the plant, approximately 40 years. Since Unit 1 has operated for about 5 years, it is still early in the plant design life. Therefore, it is early in the design life of its snubbers, providing additional assurance that the snubbers will operate as required.

Functional testing is routinely performed on snubbers in accordance with Technical Specification requirements. All 680 inaccessible snubbers installed as of the last inspection were functionally tested during the last outage. Defective snubbers found as a result of this functional testing were replaced. The 100% functional testing of inaccessible snubbers during the last outage provides a higher than normal level of assurance that the snubbers will perform their safety function as required. There have been no known events (seismic or transients) that could have impaired the operability of any snubbers demonstrated operable after the last refueling outage.

The surveillance extension requested is for a short period of time, approximately 6 weeks. As the unit shuts down to begin the refueling outage, the plant will enter modes where certain systems are not required to be operable. As such, the snubbers on those systems will not be required to be operable for approximately 2 weeks out of the requested 6-week extension. This reduces the actual extension period for these snubbers to approximately 4 weeks. As a result, the impact of the extension is further reduced because the number of snubbers affected by the extension is decreased. In addition, the probability of a seismic or transient event occurring during this short extension that requires the snubber to perform its design function is negligible.

For these reasons, the staff finds the proposed amendment acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment involves change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The 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 exposures. 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. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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.

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.

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Dated: December 12, 1989