



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 18 TO FACILITY OPERATING LICENSE NO. NPF-58

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

1.0 INTRODUCTION

Technical Specification 4.3.8.2 for the Perry Nuclear Power Plant, Unit 1, requires, in part, that the turbine overspeed protection system be demonstrated operable at least once per 40 months by disassembling at least one of each of the low pressure turbine intercept valves, high pressure turbine control valves, high pressure turbine stop valves and low pressure turbine intermediate stop valves, and performing a visual and surface inspection of all valve seats, disks and stems and verifying no unacceptable flaws or extensive corrosion. If excessive corrosion or unacceptable flaws are found, all other valves of that type shall be inspected.

By letter dated February 10, as supplemented March 3, 1988 the Cleveland Electric Illuminating Company, et al. (licensees) requested a Technical Specification change for the Perry Nuclear Power Plant, Unit 1, to allow a one-time extension of the 40-month surveillance requirement until prior to startup from the first refueling outage, currently scheduled to begin in February 1989.

2.0 DISCUSSION AND EVALUATION

The purpose of Technical Specification 4.3.8.2 is to, in conjunction with other surveillance requirements for the turbine overspeed protection system, ensure that the turbine would not experience excessive overspeed. Excessive turbine overspeed could generate extremely damaging missiles which could impact and damage safety-related components, equipment or structures.

All of the low pressure turbine intercept valves, high pressure turbine control valves, high pressure turbine stop valves and low pressure turbine intermediate stop valves were inspected in mid-1984. Because the turbine was only brought to rated speed in December 1986, the valves will only have experienced about 25 months of operating condition by the beginning of the first refueling outage.

Even though the requested extension will extend the surveillance interval by about 2-3 months for these valves, the period of exposure to operating conditions is well within the expected number of months exposure anticipated for future surveillance intervals, given average availabilities and expected refueling outage duration. The licensees have stated that the vendor, General

Electric, has reviewed the Perry Nuclear Power Plant operating history and has stated that performing the required valve inspections during the first refueling outage is consistent with their recommendations for valve inspections.

The requested change is a one-time extension which has become necessary because of a prolonged start-up test program which is common to new plants of this vintage and design. The required surveillances involve an extended outage of at least 15 days in length, exclusive of scheduling and preparation time and the time required to evaluate the results and expand the scope of the inspections, as may be required. Although the licensees had committed to performing the required surveillances during any outage of sufficient duration which would occur prior to the first refueling outage, the licensees have stated that no outage of this length became available during the surveillance window (40 months  $\pm$  25%).

The licensees have also verified that actual overspeed tests of the main turbine including the Turbine Generator load rejection test on October 25, 1987, indicate that the valves were functioning properly to prevent an excessive overspeed condition in the main turbine. Especially because this is a new plant, the staff would not expect any significant degradation of these valves, which would impact their ability to function, to occur during the relatively short period of time considered by the extension request. Based upon the above considerations, the staff finds that the licensees' proposed amendment request to Technical Specification 4.3.8.2 to, on a one-time basis, extend the surveillance interval for the disassembly and inspection of valves until the first refueling outage to be acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to 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 or a change to 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 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). 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 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 to the health and safety of the public.

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Dated: December 8, 1988