



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO THE INSERVICE TESTING PROGRAM AND REQUESTS FOR RELIEF
DUQUESNE LIGHT COMPANY
OHIO EDISON COMPANY
PENNSYLVANIA POWER COMPANY
BEAVER VALLEY POWER STATION, UNIT NO. 1
DOCKET NO. 50-334

1.0 INTRODUCTION

The Safety Evaluation for the second ten-year interval of the Beaver Valley Power Station, Unit 1, inservice testing (IST) program was provided in NRC's letter dated May 6, 1991. In this Safety Evaluation, Relief Requests 18 and 20 were granted, provided the applicable check valves are full-stroke exercised open in accordance with Generic Letter (GL) 89-04, Attachment 1, Position 1. Subsequently, Duquesne Light Company (DLC or the licensee) requested the NRC evaluate previously submitted information related to test methods which were not in accordance with GL 89-04, Position 1. The test methods were described in licensee submittals dated March 21, 1988, and April 27, 1989. Additional information was made available to the NRC on May 31, 1991, including previous test results, test procedures, and computer program descriptions (this material was placed on the docket by memorandum dated December 27, 1991). These documents were utilized by Oak Ridge National Laboratory to perform a review and analysis of the proposed alternative tests. The results of the review are provided in the attached Technical Evaluation Report (TER). The assessment of Relief Request 18 is applicable to Relief Request 16 which was not addressed separately as part of the licensee's original request for further NRC review. Both relate to full-stroke exercising of parallel check valves.

This Safety Evaluation is a supplement to the previous Safety Evaluation issued May 6, 1991 (TAC M61257).

2.0 EVALUATION

The licensee's test methodology, test procedures, test results, and computer program description for Relief Request 18 (valves SI-23, SI-24, and SI-25) and Relief Request 20 (valves SI-48, SI-50, SI-51, SI-52, and SI-53) have

been reviewed by the staff with the assistance of its contractor, Oak Ridge National Laboratory (ORNL). The TER is ORNL's evaluation of the licensee's proposed alternative testing for Relief Requests 18 and 20. The staff has reviewed the TER and concurs with the evaluations, conclusions, and recommendations. The staff has also determined that the conclusions and recommendations for Relief Request 18 are applicable to Relief Request 16 for low-head safety-injection cold leg injection valves SI-10, SI-11, and SI-12.

The conclusions do not invalidate relief granted in the May 6, 1991 Safety Evaluation, which extended the test interval from quarterly per IWV-3522 to testing during refueling outages, provided the full-stroke exercising is in accordance with GL 89-04, Position 1. The TER includes recommendations as to how the testing can be enhanced to meet the guidelines in GL 89-04, Position 1. Alternately, the valves could be disassembled and inspected to verify the full-stroke open capability of the valves with the proposed tests considered partial flow tests.

The licensee should determine which approach is to be taken for Relief Requests 16, 18, and 20. If the testing is to be enhanced such that it is performed in accordance with GL 89-04, Position 1, relief as previously granted remains valid. If the licensee determines that disassembly and inspection of the valves will be added to the program, relief is also granted provided the provisions of GL 89-04 are followed. Revised relief requests should be submitted, to document the changes to the Beaver Valley Unit 1 IST program, within 1 year of the date of this Safety Evaluation or by the next refueling outage, whichever is later.

3.0 CONCLUSION

Based on the uncertainties of the proposed alternative test methods, in verifying full-stroke opening of the subject check valves, the licensee should revise the testing to meet either Position 1 or Position 2 of GL 89-04. Provisionally granted relief in the May 6, 1991 Safety Evaluation remains valid, provided the licensee meets GL 89-04, Position 1. Alternatively, if the licensee meets GL 89-04, Position 2, relief is approved per GL 89-04. Revisions to the IST program relief requests should be submitted as appropriate. The revised testing is to be implemented by the next refueling outage. The previous testing has provided an acceptable level of assurance that the valves will open if required in the interim period until the revised testing can be performed. The staff has determined that the relief, as previously granted, pursuant to 10 CFR 50.55(a)(6)(i) with provisions, is authorized by law and will not endanger life or property, or the common defense and security, and is otherwise in the public interest.

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Date: January 24, 1992