



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

APPENDIX J REVIEW

LACROSSE BOILING WATER REACTOR

DOCKET NO. 50-409

1.0 INTRODUCTION

On August 5, 1975[1], the NRC requested ~~the~~ Dairyland Power Cooperative (DPC) to review its containment testing program for the LaCrosse Boiling Water Reactor (LaCrosse), and the associated technical specifications, for compliance with the requirements of Appendix J to 10 CFR Part 50.

Appendix J to 10 CFR Part 50 was published on February 14, 1973. Since by this date there were already many operating nuclear plants and a number more in advanced stages of design or construction, the NRC decided to have these plants re-evaluated against the requirements of this new regulation. Therefore, beginning in August 1975, requests for review of the extent of compliance with the requirements of Appendix J were made of each licensee. Following the initial responses to these requests, NRC staff positions were developed which would assure that the objectives of the testing requirements of the above cited regulation were satisfied. These staff positions have since been applied in our review of the submittals filed by the licensee for LaCrosse. The results of our evaluation are provided below.

2.0 EVALUATION

Our consultant, the Franklin Research Center (FRC), has reviewed the licensee's submittals [2, 3, 4, 5] and prepared the attached evaluation of containment leakage tests for LaCrosse. We have reviewed this evaluation and concur in its bases and findings; however, as noted below, our conclusions concerning hydraulic testing of certain containment isolation valves (see sections 3.1 to 3.4 below) differ slightly from those of the FRC. In each case, the FRC concludes that the licensee's testing provisions constitute an acceptable ex-

emption from the requirements of Appendix J, whereas we conclude that no exemption is necessary, since the licensee complies with the requirements of Appendix J. We have discussed this matter with the FRC and they concur with our finding.

3.0 CONCLUSION

Based on our review of the enclosed technical evaluation report (TER) regarding the Appendix J review for LaCrosse, we conclude that:

- 3.1 Hydraulic testing of demineralized water system isolation valve No. 67-26-001 is an acceptable alternative to the pneumatic testing requirements of Appendix J, since the hydraulic testing is used to verify an effective water seal on this valve in accordance with Appendix J; thus, no exemption is necessary.
- 3.2 Hydraulic testing of high pressure service water system isolation valve No. 75-26-003 is an acceptable alternative to the pneumatic testing requirements of Appendix J, since the hydraulic testing is used to verify an effective water seal on this valve in accordance with Appendix J; thus, no exemption is necessary.
- 3.3 Hydraulic testing of decay heat startup water removal isolation valve No. 56-25-001 is an acceptable alternative to the pneumatic testing requirements of Appendix J, since the hydraulic testing is used to verify an effective water seal on this valve in accordance with Appendix J; thus, no exemption is necessary.
- 3.4 Hydraulic testing of primary purification resin sluice isolation valves Nos. 54-24-019, 54-24-020, 54-24-021, and 54-24-022 is an acceptable alternative to the pneumatic testing requirements of Appendix J, since the hydraulic testing is used to verify an effective water seal on these valves in accordance with Appendix J; thus, no exemption is necessary.
- 3.5 DPC's proposal to modify the Technical Specifications at LaCrosse to specify a maximum total leakage of 0.6 La for Type B and Type C testing is acceptable, since this conforms to the requirements of Appendix J.

- 3.6 Section 5.2.1.1.(c) of the LaCrosse Technical Specifications is unacceptable because it can result in a nonconservative assessment of the containment integrated leakage rate. This request for exemption from Appendix J is therefore denied. Technical Specifications should be modified to require back-correcting by a conservative method, and DPC should propose such changes.
- 3.7 DPC's request to test containment airlocks every four months and not after each opening does not satisfy the requirements of Appendix J. A reduced pressure test of airlock door seals or other positive means to verify the integrity of the seals within 72 hours of opening or every 72 hours during periods of frequent openings is necessary to satisfy the testing requirements of Appendix J. The issue of more frequent airlock testing (beyond once every 4 months) has been incorporated as an open item to be resolved as part of the Integrated Assessment under the Systematic Evaluation Program (SEP).

4.0 ACKNOWLEDGEMENTS

- . This evaluation has been prepared by:

J. Pulsipher
R. Dudley

5.0 REFERENCES

1. K. R. Goller (NRC)
Letter to J. P. Madgett (DPC)
August 5, 1975
2. J. P. Madgett (DPC)
Letter to K. R. Goller (NRC)
September 9, 1975
LAC-3379
3. J. P. Madgett (DPC)
Letter to R. W. Reed (NRC)
December 21, 1976
LAC-4408

4. F. Linder (DPC)
Letter to D. M. Crutchfield, (NRC)
July 28, 1980
LAC-7057
5. F. Linder (DPC)
Letter to D. M. Crutchfield (NRC)
August 19, 1980
LAC-7095
6. R. W. Reid (NRC)
Letter to J. P. Madgett (DPC)
December 8, 1976

Date: August 24, 1982