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FROM: Iowa Elec. Light & Power Co. Cedar Rapids, Iowa Lee Liu		DATE OF DOC 10-13-75	DATE REC'D 10-16-75	LTR XX	TWX	RPT	OTHER
TO: Mr. Karl Goller		ORIG 3 signed	CC 37	OTHER	SENT NRC PDR <u>XX</u> SENT LOCAL PDR <u>XX</u>		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 40	DOCKET NO: 50-331		

DESCRIPTION: Ltr notarized 10-13-75 re our 8-7-75 ltr....furnshing addl info on App. J & trans the following:

ENCLOSURES: Listings of exceptions/and/or exceptions by interpretation & specific justifications for each dealing with App. J.

(40 cys encl rec'd)

ACKNOWLEDGED

PLANT NAME: Duane Arnold

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FOR ACTION/INFORMATION

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IOWA ELECTRIC LIGHT AND POWER COMPANY

50-331

General Office
CEDAR RAPIDS, IOWA
October 13, 1975
IE-75-1103

Regulatory Docket File

LEE LIU
VICE PRESIDENT - ENGINEERING

Mr. Karl R. Goller
Assistant Director for Operating Reactors
Division of Reactor Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555



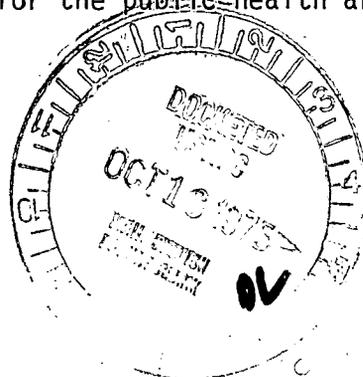
Dear Mr. Goller:

This letter is in response to your letter of August 7, 1975 requesting us to examine our compliance with 10 CFR Part 50, Appendix J published February 14, 1973.

As stated in the DAEC FSAR (Amend 5, question 5.9), the DAEC conforms with the version of 10 CFR 50, Appendix J published in proposed form in the Federal Register of August 27, 1971. The Staff Safety Evaluation (Section 5.2.6.2) for DAEC found the program for leak testing of the containment acceptable on that basis.

During 1973, Technical Specifications for DAEC were developed. These specifications modified the test program to conform the testing requirements insofar as practical as adopted in 1973 taking into account the advanced stage of construction. As a result, the DAEC fully conforms to Appendix J Type A tests and Appendix J Type B tests with the exception of the Containment Airlock. For Type C tests there are some exceptions and some items that may be considered exceptions due to interpretation. These exceptions and interpretations to the 1973 Appendix J were discussed in detail with the regulatory staff and were reflected in the Technical Specifications.

Enclosed are listings of exceptions and/or exceptions by interpretation and specific justifications for each. In addition to the specific justifications for each exception or possible exception, it is our view that additional modifications necessary to fully conform to the testing requirements of Appendix J should not be imposed since they would not appear to provide substantial, additional protection required for the public health and safety.

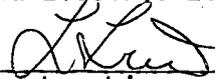


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Prior to providing proposed Technical Specifications, design modifications and/or requests for exemption, it will be necessary to determine which exceptions and interpretations are inconsistent with Appendix J. We would appreciate an opportunity to discuss these interpretations and exceptions with you.

Three originals and 37 copies of this submittal are transmitted herewith. This submittal, consisting of this letter and attachments hereto, is true and accurate to the best of my knowledge and belief.

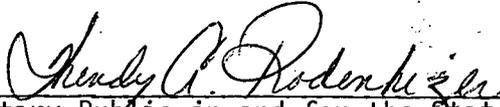
Iowa Electric Light and Power Company

By 
Lee Liu
Vice President, Engineering

LL/lf
encl.

cc: D. Arnold
J. Newman
W. Paulson (2)

Sworn and Subscribed to before me on
this 13th day of October, 1975.


Notary Public in and for the State
of Iowa

Wendy Rodenhizer
NOTARY PUBLIC
STATE OF IOWA
Commission Expires
September 30, 1976

1. Penetrations X9A and X9B. (Feedwater, HPCI, RCIC injection)

~~10-13-75~~ 10-13-75

The valves associated with these penetrations are leak tested with the lines water filled. (V-14-1, MO-4442, MO-2512, MO-2440, V-14-3, MO-4441, MO-2312). Although these lines do not have a water seal system, Iowa Electric believes that water testing is justifiable as follows:

Immediately after the design basis LOCA, water will be trapped in the feedwater vertical riser between the inboard check and the vessel nozzle. Although adiabatic flashoff will take place as a result of the sudden depressurization, this has been calculated to be on the order of 20% - 25% of the initially filled volume. Also, HPCI and RCIC would refill their respective feedwater volumes but in consideration of possible single failure in either of these systems, a conservative estimate would be that 75% of the initially contained water volume will be present immediately after the accident. Although some water leakage past the check valves may occur initially, the DAEC has the capability of closing the outboard motor operated stop check from the control room @ 10 minutes after the accident. Accordingly, waterfilled feedwater lines is the "state as close as practical to that which would exist under design bases accident conditions". In the event that a feedwater line break occurs the worst case conditions would be that the core would never uncover and peak clad temperature would not exceed $\sim 550^{\circ}$ F.

For the above reasons modifications to provide a water volume or replacement with valves qualified for air testing is not justified.

2. Penetrations X7A, X7B, X7C, X7D

Main steam isolation valves (MSIV) are tested per the Technical Specifications with air or nitrogen at a pressure of 24 psig between the valves. This results in the inboard isolation valve being tested in the opposite direction than that which would occur under accident conditions. This is considered to be conservative in that pressure in the opposite direction tends to unseat the valve. The basis for 24 psig is that when pressure testing to determine which valve is leaking in excess of Technical Specifications the main steam line between the inboard MSIV and the reactor vessel is filled with water. This head is equivalent to 24 psig. Testing in excess of 24 psig would require plugs to be inserted in the reactor vessel penetration for the main steam line in cases of excessive leakage which is not practical or desirable.

3. Penetration X36. (CRD return line)

The CRD return line piping configuration is similar to the feedwater system in that a vertical riser exists between the inboard check valve and the RPV nozzle, water would be trapped after a postulated LOCA. Water is used in leak-checking V-17-52 and V-17-53 at DAEC. Iowa Electric does not believe that modification is justified.

4. Penetrations N225A and N225B. (RHR Suppression Pool Suction)

These lines do not contain containment isolation valves corresponding to the definition of valves requiring Type C tests. These valves (MO-2069, MO-2012, MO-2015, MO-1989, MO-1921, MO-1913) do not receive containment isolation signals and are required to remain open for the duration of the accident. Iowa Electric does not interpret Appendix J to require testing of these valves.

5. Penetrations X13A, X13B (LPCI Injection), N211A, N211B (Suppression Pool Spray), N210A, N210B (RHR test line), X17 (Head Spray), X39A, X39B (Containment Spray)

All of the valves associated with the above penetrations would be pressurized for the duration of the accident and leakage would be into the containment. Leakage testing is not justified, as a path for gaseous leakage from the containment does not exist. The isolation signals associated with the above valves are for system isolation and not containment isolation.

6. Penetration X12 (RHR Shutdown Cooling Suction)

The associated valves (MO-1908, MO-1909) are presently leak tested with water. Water would exist in these lines at the inception of the accident. Any leakage would be into the seismic class I RHR system and no pathway to the atmosphere exists.

7. Penetrations N227A, N227B (Core Spray Suction)

These lines do not have containment isolation valves corresponding to the definition of valves requiring Type C tests. These valves (MO-2146, MO-2147, MO-2120, MO-2100) do not receive containment isolation signals and are required to remain open for the duration of the accident. Iowa Electric does not interpret Appendix J to require testing of these valves.

8. Penetration X16A, X16B (Core Spray Injection Lines)

The core spray injection valves are leak tested with water. Water would exist in these lines at the inception of the accident. Considering the failure of one core spray system one loop would be pressurized by the core spray pump and leakage into the containment would exist in that loop. For the non-operating loop there is a possibility for gaseous leakage to occur; however, any leakage would be contained within the seismic class I Core Spray piping.

9. Penetration N224, N226 (RCIC, HPCI - Suppression Pool Suction)

These lines do not contain containment isolation valves corresponding to the definition of valves requiring Type C tests. These valves do not receive containment isolation signals and are required to be open (assuming loss of condensate storage tank level) for the duration of the accident. Iowa Electric does not interpret Appendix J to require testing of these valves.

10. Penetration N214, N222, N212 (HPCI, RCIC Turbine Exhaust)

These suppression pool penetration lines are not leak tested. No valves in these lines receive containment isolation signals. Any leakage through these lines would be water due to the submergence in the suppression pool of these lines.

11. Additional Notes

Presently included in the DAEC Technical Specifications is the requirement to test CV-2410, CV-2411, CV-2211 and CV-2212 in the RCIC and HPCI systems. These valves are tested in light of the extension of the containment boundary with HPCI or RCIC operating.

12. Containment Airlock

Iowa Electric will propose to modify the Technical Specifications to conform to Appendix J for the Containment Airlock until such time it can be demonstrated that the continuous leak rate monitor effectively monitors this leakage.